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LAVAL (QUÉBEC)
CANADA
H7L 5X9

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Your pump has been carefully packaged at the factory to prevent damage during shipping. However, occasional damage may occur due to rough handling.

Carefully inspect your pump for damages that could cause failures. Report any damage to your carrier or your point of purchase.



INSTALLATION INSTRUCTIONS

SERIES 101 / 105

SUBMERSIBLE
DEEP WELL PUMPS
or
'SUB-PACS'

Please read these instructions carefully. **Failure** to comply to instructions and **designed** operation of this system, may **void** the warranty.

**THESE
INSTRUCTIONS
ARE VALID FOR
2 AND 3 WIRES
(+ GROUND)
DEEP WELL
PUMP
INSTALLATION.**

SAFETY INSTRUCTIONS:

This fine pump that you have just purchased is designed from the latest in material and workmanship.

Before installation and operation, we recommend the following procedures:

- A** CHECK WITH YOUR LOCAL ELECTRICAL AND PLUMBING CODES TO ENSURE YOU COMPLY WITH THE REGULATIONS. THESE CODES HAVE BEEN DESIGNED WITH YOUR SAFETY IN MIND. BE SURE YOU COMPLY WITH THEM.
- B** WE RECOMMEND THAT A SEPARATE CIRCUIT BE LEAD FROM THE HOME ELECTRICAL DISTRIBUTION PANEL PROPERLY PROTECTED WITH A FUSE OR A CIRCUIT BREAKER. WE ALSO RECOMMEND THAT A GROUND FAULT CIRCUIT BE USED. CONSULT A LICENSED ELECTRICIAN FOR ALL WIRING.
- C** NEVER MAKE ADJUSTMENTS TO ANY ELECTRICAL APPLIANCE OR PRODUCT WITH THE POWER CONNECTED.
- D** ENSURE THAT THE PUMP AND PIPING SYSTEM IS PROTECTED AGAINST BELOW FREEZING TEMPERATURES. PUMP DISCHARGE PIPING MUST BE INSTALLED BELOW THE FROST LEVEL TO YOUR AREA.
- E** ENSURE THAT THE WELL AND THE WATER BEING PUMPED IS FREE FROM SAND. HAVE YOUR WELL TEST PUMPED TO ENSURE THAT THE WATER IS CLEAR. LARGE AMOUNTS OF SAND WILL CLOG THE WATERWAYS THE PUMP. WARRANTY IS VOID IF SAND OR OTHER ABRASIVES IS DETERMINED TO CAUSE THE PUMP TO FAILURE.

General instructions:

Your submersible pump is a high quality design but, should be installed in a well that is clean, straight, and of sufficient capacity. Never install your submersible pump-resting on the bottom of the well. A distance of 5 feet (1.5m) from the bottom of well is recommended.

The 3 wired (+ground) model, submersible pump is supplied with a motor control box. This control box should be installed in a clean dry location, in vicinity of the pressure tank. The separate electrical circuit should have its own fused disconnect switch in the line leading to the pressure switch.



YOUR OWNERS MANUAL WILL DISPLAY A NUMBER OF DIAGRAMS AND PICTURES TO HELP YOU WITH YOUR INSTALLATION.

Material required for drilled well application

Deep well pump

- ☐ Desired length of polyethylene 1" pipe, 100 PSI, CSA or UL approved to link up from pumping level to pump.
- ☐ 1 Poly rope
- ☐ Well seal (150156).
- ☐ Pitless adaptor (150155).
- ☐ 1" male brass adaptors (750871).
- ☐ 1" stainless steel clamps (750885).
- ☐ Electrical tape.
- ☐ Teflon tape.
- ☐ Pressure relief valve 1/2" NPT.
- ☐ Torque arrestor (150158)

Tank installation

- ☐ Desired length of 1" braided hose (750919) to link up from pump to tank. Keep tank as close as possible from pump.
- ☐ 1 tank "T" (650651).
- ☐ 1 1/2" drain valve (650659).
- ☐ 1 1/2" safety valve (150162).
- ☐ 2 1" female adaptor(750949).
- ☐ 1 1" galvanized or brass elbow.
- ☐ Pressure gauge (750769).
- ☐ L.O.P. pressure switch (150159S).
- ☐ 1/4" X 3" galvanized or brass nipple
- ☐ Teflon tape.



Tools

Screwdrivers, hacksaw to cut pipe, knife to assist in pipe cutting, round file to smooth pipe ends, pipe wrench, adjustable wrench to tighten fittings, propane torch and welding material.

INSTALLATION STEP

BEFORE YOU START

Information regarding your well may be obtained from your well Drillers' log.

If no information is available, you can determine the depth of the well by lowering a heavy (small) weight tied to a long cord or fishing line. Lower the weight to the well bottom, take up the slack, and mark line where it meets the top of the well. Remove the weight from the well and measure line to determine well depth.

Please remember, a submersible pump should not be lower than 5 feet from the bottom of the well; no higher than 10 feet below the water level.

If you are replacing your old pump with a new and similar pump, ie : 10 GPM. Pump with new 10 GPM, and a similar powered (1/2 HP by 1/2 HP) install the new pump at the same level; if... the new pump is larger in horsepower (1/2 HP by 3/4 HP) or pumping capacity (5 GPM by 7 GPM), set the pump deeper in the well if the well is capable of pumping higher volume.

150143 (4 tubes) / 150152 (3 tubes) HEAT SHRINK SPLICING KIT SHRINKING TECHNIQUE

Shrinking can be accomplished through the use of a thermo gun or flame torch with a utility head or other broad flame. Begin at one end of tubing. Keep tubing out of direct contact with flame. Keep flame moving back and forth. Progress toward other end as tubing shrinks and wrinkles disappear. Keep the flame moving.

STEP 1 Strip approx. 1/4" (6mm) of wire insulation from both end of wires to connect. Clean wires about 3" from ends and put tube over one end.

STEP 2 Insert one wire end into wire connector and crimp it.

STEP 3 Insert the second wire end into wire connector and crimp it.

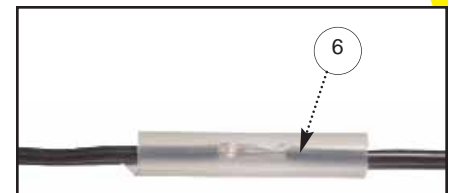
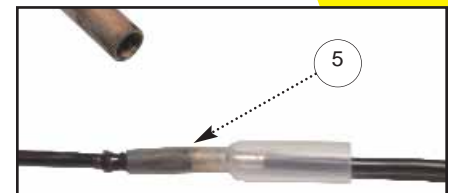
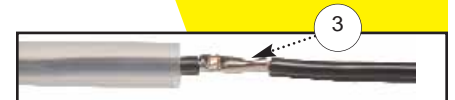
STEP 4 Set the connector in the middle of the tube.

STEP 5 Shrinking can be accomplished through the use of a thermo gun or flame torch with a utility head or other broad flame. Begin at one end of tubing. Keep tubing out of direct contact with flame. Keep flame moving back and forth.

STEP 6 Progress toward other end as tubing shrinks and wrinkles disappear. Keep the flame moving. A small amount of glue should be visible around the ends of the tube.

STEP 7 Let tube to cool before pump installation.

STEP 8 Put together all spliced wires and use electrical tape to cover the complete heat shrink from beginning to end.

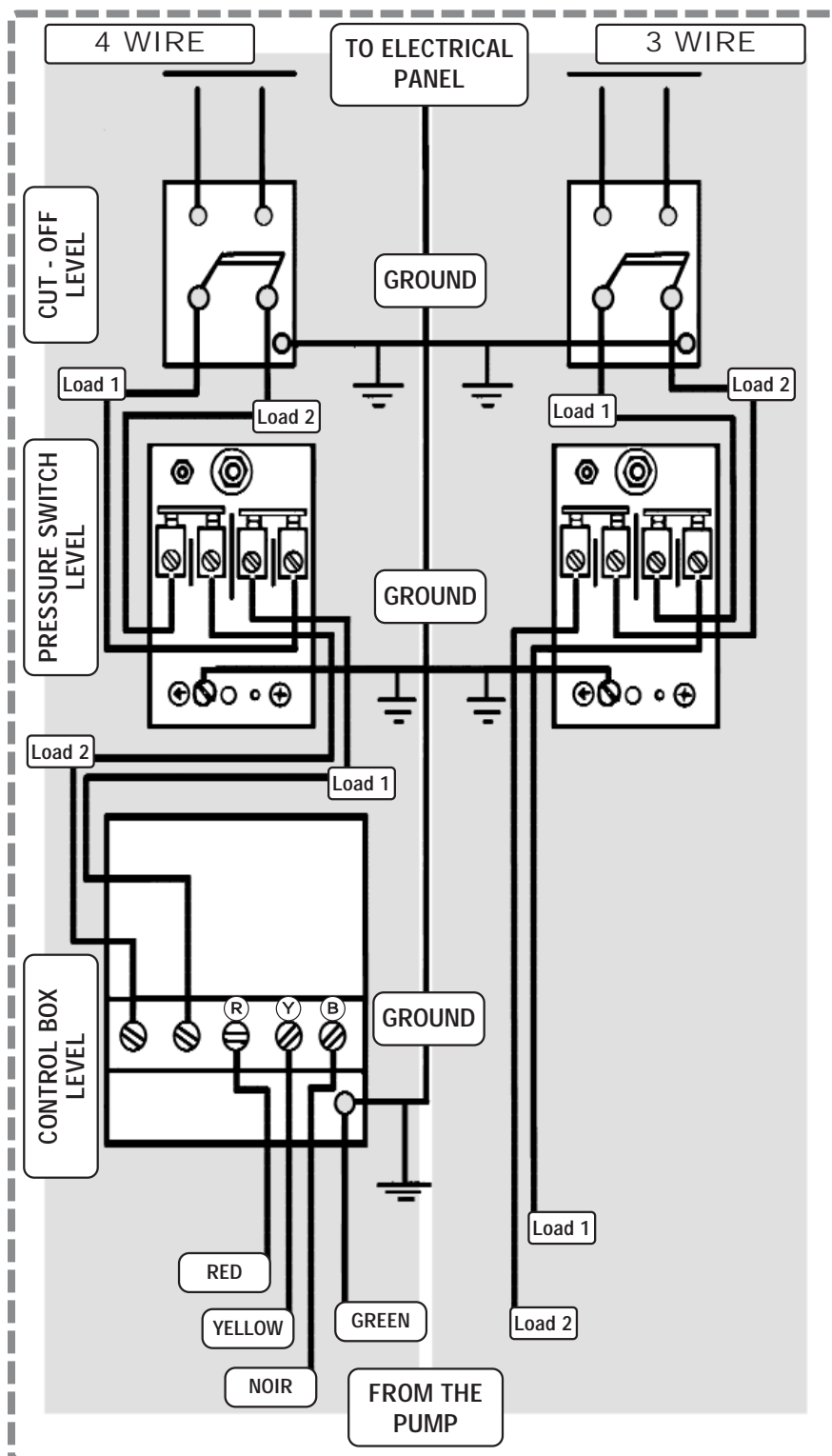


ELECTRICAL INSTALLATION

STEP 9

We recommend that a licensed electrician be employed to do wiring to the pressure switch. Permanently ground the motor in accordance to the electrical codes for your area.

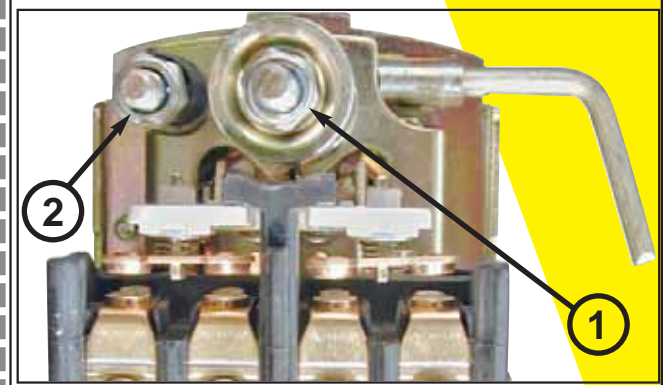
Do not use an extension cord to connect your pump to the power source. From your distribution panel to the pressure switch, we recommend a wire gauge not smaller than 14 gauge.



Pressure switch setting (start/stop 20/40 or 30/50) has been made in factory. An adjustment may be done to give other operating pressures.

Adjustment or modification of start/stop setting of pressure switch have to be done carefully. **Turn adjustment nut 1 half turn at a time.**

Turn nut 1 clockwise to raise start and stop pressure setting. **Never turn nut 2. This will change the 20 PSI range between start and stop pressure and may damage your tank's bladder or modify the efficiency of your water system.** Check system operation after each adjustment.



WIRE CHART

HP	V	GAUGE				
		14	12	10	8	6
1/2	115	100'	160'	250'	390'	620'
1/2	230	400'	650'	1020'	1610'	2510'
3/4	230	300'	480'	760'	1200'	1870'
1.0	230	250'	400'	630'	900'	1540'
1.5	230	190'	310'	480'	770'	1200'

** If you need other configuration, contact us*

STEP BY STEP INSTALLATION INSTRUCTION FOR YOUR NEW DEEP WELL PUMP

STEP 1 Lay the pump on the ground a foot or two from the well head, with the discharge end pointing away from the well. If you have purchased a Sub-Pac, the wire and (splice kit) will be attached to the motor pigtail.

STEP 2 Your submersible pump is equipped with a check valve installed in the discharge opening of pump. With teflon tape, wrap the threads on a 1" male brass, (or galvanized) adaptor and with your pipe wrench, install adaptor into opening of the check valve. Do not over tighten-nug up until slightly hard to turn. (Brass adaptors are recommended for long life. Electrolysis will damage galvanized adaptors).

STEP 3 Locate your 1" Plastic Poly Pipe and roll out on the ground, the desired length for your pump setting in the well. Slide 1-1" stainless steel hose clamp, (2 clamps are better), over the end of your plastic pipe. With your propane torch-heat this end of the plastic pipe-while warm-slide pipe over adaptor installed in pumps' check valve. With your screwdriver securely tighten clamp(s). Use electrical tape to tape the tab ends of the clamp(s).

STEP 4 To prevent the pump from hitting the side of the well casing and well, to prevent possible damage to the submersible pump cable, when the pump and motor starts in the well - a torque arrestor (150158) is recommended. Remove torque arrestor from its carton and disassemble into two halves. At 6" or so above the pump's discharge and around the pipe, place each half of the arrestor and with the clamps provided, install the arrestor. Tighten the bottom clamp securely arrestor towards the middle so that it expands to the size of inside diameter of your well casing. Securely tighten the top clamp, with your screwdriver. With electrical tape - tape the tab ends of the clamps.

We recommend to install at each 35m (100') others torque arrestor assembly.

STEP 5 Regardless of which method chosen to lead the pump discharge pipe into the home, a trench should be excavated from the well head into the location where the pipe will enter the basement wall. The trench should be excavated so that the discharge pipe will be installed below the frost level for your area, usually 4-5 feet deep. The typical diagram shown in this manual does not show this trench for your discharge pipe.

STEP 6 Refer to the diagram, and prepare and assemble the well seal assembly. The well seal size shall be the inside diameter of the well casing with the pipe size of 1". All fittings are brass or galvanized and are of 1" NPT size. When the assembly is complete it will be put in place along with the pipe and secured to the well casing by tightening, the well seal bolts / nuts. When using a pitless adaptor, the connection to the system supply line, (discharge pipe from pump) is made below ground, below the frost level for your area. The well casing is cut and the pitless adaptor is lowered into place by using a riser pipe connected to the top of pitless adaptor. (Riser pipe 1" about 4 feet long) construct from 1" steel pipe. Before pitless adaptor is securely tightened into place in the casing, a 1" brass male pipe adaptor should be installed in the bottom opening on the adaptor, and 1 more adaptor, installed in the discharge connection leading from the adaptor. Use teflon tape on all thread connections and securely tighten with your pipe wrenches.

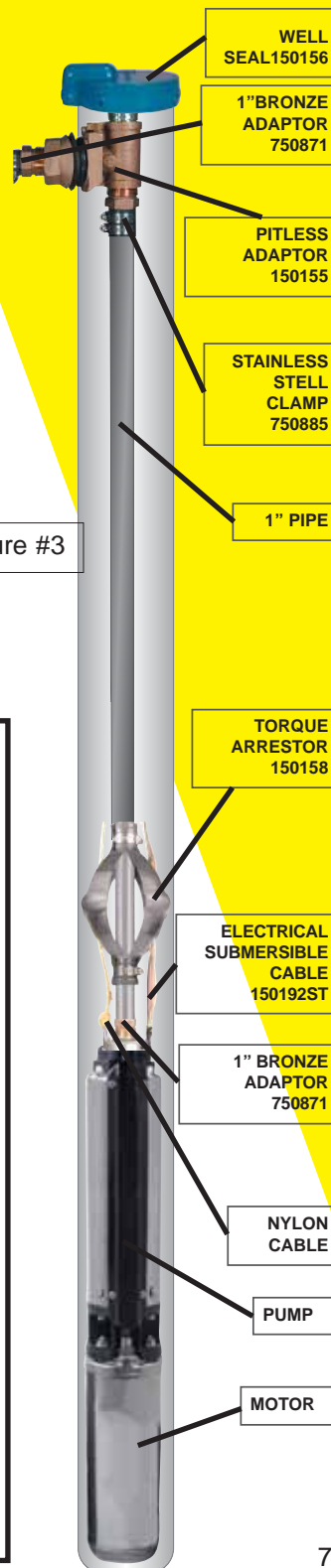
STEP 7 Roll out the submersible pump cable, on the ground, along side of your 1" plastic Poly pipe, and at 5 foot intervals using your electrical tape - tape the cable to the pipe. This will prevent the cable from hitting the well casing when lowering pump into the well.

STEP 8 Securely attached your 1/4 poly safety rope to the lug provided on the discharge end of your submersible pump. This rope should be long enough to reach the pump setting in your well, when lowered. The other end of safety rope should be attached to a pipe-one or two feet long (galvanized-steel), so that if pump should be dropped in well when being lowered-pipe should come to rest across the diameter of the well casing, so as not lose pump, in the well.

STEP 9 Using the well seal method, - connect your drop pipe to the male adaptor protruding from coupling, in well seal assembly, with 2-1" stainless steel clamps, soften pipe with your torch, slide pipe over adaptor, tighten clamps.

For pitless method, connect your drop pipe to the male adaptor previously installed in the bottom of the pitless adaptor, tighten clamps with 2-1" stainless steel clamps, soften pipe with your torch, slide pipe over adaptor, tighten clamps with your screwdriver and tape the tab ends of the clamps.

With the aide of your helper, it is now time to lower pump and piping assembly into your well casing.

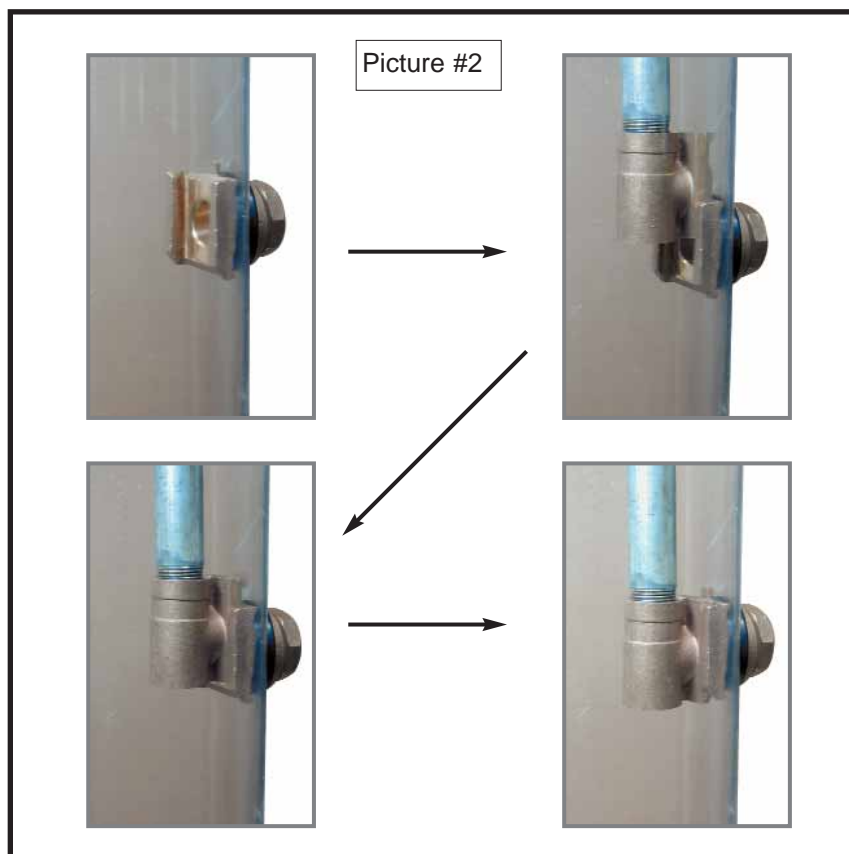


Picture #3

Picture #1



Picture #2



AIR PRESSURE TANK INSTALLATION

STEP 10

for captive
air tanks

When using a separate tank from your pump, we recommend to install a captive air tank as shown in our typical installation diagram, that is air injected into the tank at the factory. This air, which is in addition to atmospheric pressure, increase the ability of the tank to deliver more water between on/off cycles, thus increasing the efficiency of your water system. Connect the pump discharge to the tank T, using adaptors and braided hose, then, connect the other side of tank T to your home's plumbing distribution line.



Make sure that the precharged air pressure (before connecting the tank) is 2 PSI less than the starting pressure set on the pressure switch of your pump.

If you adjust the air pressure after the installation, follow these steps:

- Check the starting pressure of the pump on the pressure gauge;
- Disconnect the power to the pump;
- Open nearest faucet to the tank and relieve all pressure in tank, then close the faucet;
- Adjust the air pressure of the tank (by pumping or removing air at the snifter valve) 2 PSI below pressure switch "ON" setting;
- Turn power back on to pump.

Your tank is now well precharged. Run the pump through a few cycles to verify that it works properly.

STEP 11

for epoxy or
glass lined
tanks

Other types of tanks may be used, as galvanized standard tanks, epoxy or glass lined tanks. These products do not achieve the benefits of the captive air tanks.

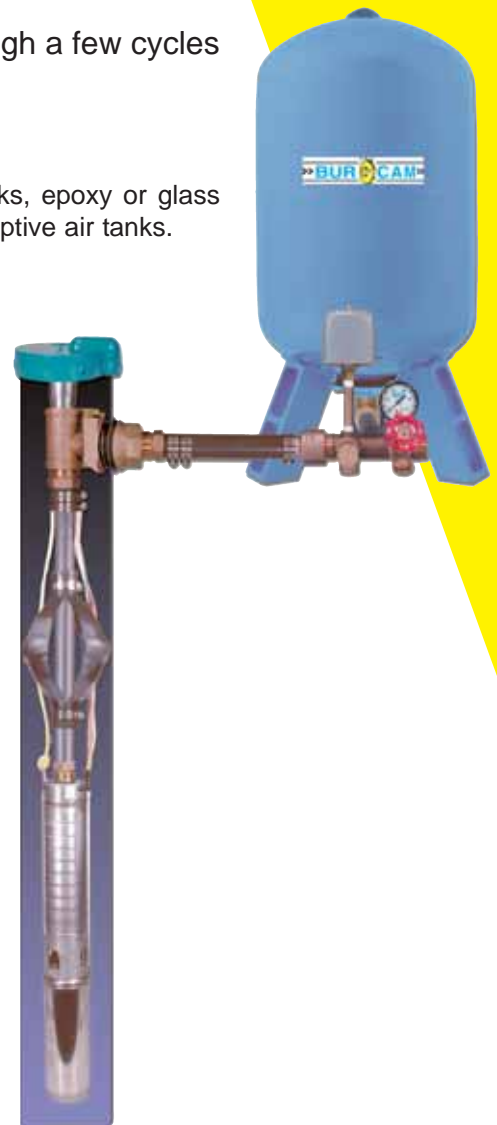
Epoxy or glass lined tanks with float have to be precharged by the installer. Assuming tank is plumbed to pump and all connections are checked for leaks, follow these steps:

- Run pump through one complete cycle, until pump shuts off;
- Disconnect the power to the pump;
- Open nearest faucet to the tank and relieve all pressure in tank, then close the faucet;
- Close service line gate valve;
- With a car tire pump, inject air into the snifter valve located in tank. Watch pump pressure gauge and stop pumping air when pressure reaches 2 PSI below pressure switch "ON" setting;
- Return power back on to pump;
- Run pump through one complete cycle;
- Open service line gate valve.

Not recom-
mended for
galvanized-
tanks

Your tank is now well precharged. Run the pump through a few cycles to verify that it works properly.

Galvanized standard tanks require an air volume control and to be used with jet pump. We do not recommend the installation of this type of tank with your submersible pump. This type of galvanized tank is recommended only with piston pumps.



AIR PRESSURE TANK INSTALLATION

STEP 1 "Free-Standing" type tanks have to be installed offset from your pump, and in "the line" coming from your pump's discharge connection (either a jet or submersible pump). Turn your tank on its side and install a galvanized 90° elbow (1" or 1 1/4" as per needed) to the inlet-outlet connection, using an ample supply of teflon tape on the treads.

STEP 2 Determine the position or location in which you wish to leave your tank permanently. Leave ample room to make your tank connections.

STEP 3 Screw the long end of the tank "T" (650651 or 650662) to the tank elbow's using teflon tape. If required, install a reducing adaptor 1 1/4" - 1" NPT.

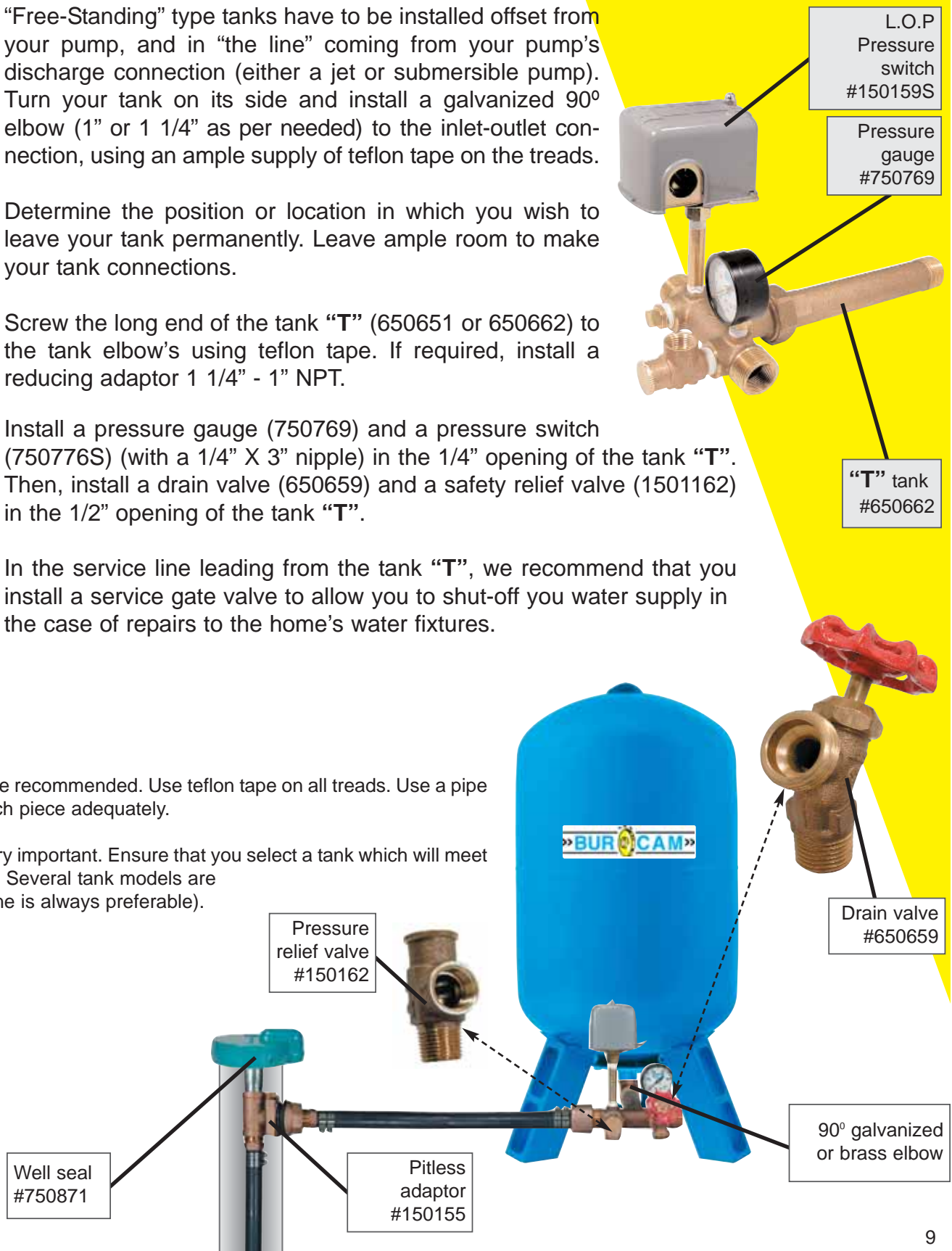
STEP 4 Install a pressure gauge (750769) and a pressure switch (750776S) (with a 1/4" X 3" nipple) in the 1/4" opening of the tank "T". Then, install a drain valve (650659) and a safety relief valve (1501162) in the 1/2" opening of the tank "T".

STEP 5 In the service line leading from the tank "T", we recommend that you install a service gate valve to allow you to shut-off you water supply in the case of repairs to the home's water fixtures.

NOTES:

The above parts are recommended. Use teflon tape on all treads. Use a pipe wrench to tight each piece adequately.

The tank size is very important. Ensure that you select a tank which will meet your requirements. Several tank models are available (larger one is always preferable).



REPLACEMENT PUMP MODELS

ALL STAINLESS STEEL 5 GPM 1-1 1/4" DISCHARGE					NORYL Impellers / Diffusers & STAINLESS STEEL 5 GPM 1-1 1/4" DISCHARGE					NORYL Impellers / Diffusers & STAINLESS STEEL 7 GPM 1-1 1/4" DISCHARGE				
MODELS	HP	V	Wire	Stage	MODELS	HP	V	Wire	Stages	MODELS	HP	V	Wire	Stages
101124	1/2	115	2	13	105130	1/2	115	2	13	105113	1/2	115	2	10
101125	1/2	115	3	13	105125	1/2	115	3	13	105114	1/2	115	3	10
101126	1/2	230	2	13	105132	1/2	230	2	13	105131	1/2	230	2	10
<i>101074</i>	<i>1/2</i>	<i>230</i>	<i>3</i>	<i>13</i>	105127	1/2	230	3	13	105163	1/2	230	3	10
101134	3/4	230	2	18	<i>105101</i>	<i>1/2</i>	<i>230</i>	<i>3</i>	<i>13</i>	<i>105108</i>	<i>1/2</i>	<i>230</i>	<i>3</i>	<i>10</i>
101135	3/4	230	3	18	105142	3/4	230	2	18	105141	3/4	230	2	13
<i>101059</i>	<i>3/4</i>	<i>230</i>	<i>3</i>	<i>18</i>	105135	3/4	230	3	18	105143	3/4	230	3	13
101144	1.0	230	2	22	<i>105105</i>	<i>3/4</i>	<i>230</i>	<i>3</i>	<i>18</i>	<i>105109</i>	<i>3/4</i>	<i>230</i>	<i>3</i>	<i>13</i>
101145	1.0	230	3	22	105144	1.0	230	2	22	105173	1.0	230	2	17
101156	1.5	230	2	26	105145	1.0	230	3	22	105174	1.0	230	3	17
101154	1.5	230	3	26	105153	1.5	230	2	30	105182	1.5	230	2	22
					105154	1.5	230	3	30	105183	1.5	230	3	22
ALL STAINLESS STEEL 10 GPM 1-1 1/4" DISCHARGE					NORYL Suction / Discharge & S.STEEL (econo serie) 10 GPM 1 1/4" DISCHARGE					NORYL Impellers / Diffusers & STAINLESS STEEL 10 GPM 1-1 1/4" DISCHARGE				
MODELS	HP	V	Wire	Stages	MODELS	HP	V	Wire	Stages	MODELS	HP	V	Wire	Stages
101129	1/2	115	2	9	105335ST	1/2	115	2	6	105124	1/2	115	2	6
101123	1/2	115	3	9	105305ST	1/2	115	3	6	105126	1/2	115	3	6
101130	1/2	230	2	9	105337ST	1/2	230	2	6	105133	1/2	230	2	6
101128	1/2	230	3	9	105307ST	1/2	230	3	6	105128	1/2	230	3	6
<i>101151</i>	<i>1/2</i>	<i>230</i>	<i>3</i>	<i>9</i>	<i>105551ST</i>	<i>1/2</i>	<i>230</i>	<i>3</i>	<i>6</i>	<i>105103</i>	<i>1/2</i>	<i>230</i>	<i>3</i>	<i>6</i>
101131	3/4	230	2	12	105339ST	3/4	230	2	8	105134	3/4	230	2	8
101136	3/4	230	3	12	105309ST	3/4	230	3	8	105136	3/4	230	3	8
<i>101152</i>	<i>3/4</i>	<i>230</i>	<i>3</i>	<i>12</i>	<i>105352ST</i>	<i>3/4</i>	<i>230</i>	<i>3</i>	<i>8</i>	<i>105107</i>	<i>3/4</i>	<i>230</i>	<i>3</i>	<i>8</i>
101147	1.0	230	2	15	105335ST	1.0	230	2	11	105150	1.0	230	2	11
101146	1.0	230	3	15	105313ST	1.0	230	3	11	105146	1.0	230	3	11
<i>101153</i>	<i>1.0</i>	<i>230</i>	<i>3</i>	<i>15</i>	<i>105353ST</i>	<i>1.0</i>	<i>230</i>	<i>3</i>	<i>11</i>	105161	1.5	230	2	15
101158	1.5	230	2	21	105336ST	1.5	230	2	17	105155	1.5	230	3	15
101155	1.5	230	3	21	105316ST	1.5	230	3	17					
101165	2.0	230	3	27										

Italic type: Sub Packs pumps

Should have more choice depending of your configuration.

REPAIR PARTS

ALL STAINLESS STEEL SERIE



Pump head	
Models	Description
111127	13 stages
111135	18 stages
111145	22 stages
111154	26 stages
111128	9 stages
111136	12 stages
111146	15 stages
111155	21 stages

STAINLESS STEEL & NORYL SERIE



Pump head	
Models	Description
115307ST	6 stages
115309ST	8 stages
115313ST	11 stages
115316ST	17 stages

STAINLESS STEEL & NORYL SERIE



Pump head	
Models	Description
115127	13 stages
115135	18 stages
115145	22 stages
115154	30 stages
115129	10 stages
115139	13 stages
115149	17 stages
115159	22 stages
115128	6 stages
115136	8 stages
115146	11 stages
115155	15 stages

Pump motor

Models	Description
125127	1/2 HP 115V 2 wire
125227	1/2 HP 115V 3 wire
125128	1/2 HP 230V 2 wire
125228	1/2 HP 230V 3 wire
125130	3/4 HP 230V 2 wire
125229	3/4 HP 230V 3 wire
125132	1.0 HP 230V 2 wire
125235	1.0 HP 230V 3 wire
125133	1.5 HP 230V 2 wire
125245	1.5 HP 230V 3 wire

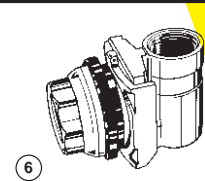
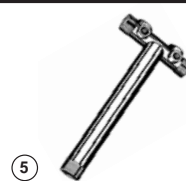
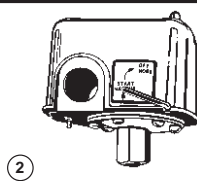
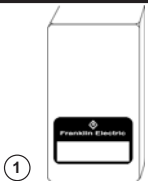
Pump motor

Models	Description
125127	1/2 HP 115V 2 wire
125227	1/2 HP 115V 3 wire
125128	1/2 HP 230V 2 wire
125228	1/2 HP 230V 3 wire
125130	3/4 HP 230V 2 wire
125229	3/4 HP 230V 3 wire
125132	1.0 HP 230V 2 wire
125235	1.0 HP 230V 3 wire
125133	1.5 HP 230V 2 wire
125245	1.5 HP 230V 3 wire

Pump motor

Models	Description
125127	1/2 HP 115V 2 wire
125227	1/2 HP 115V 3 wire
125128	1/2 HP 230V 2 wire
125228	1/2 HP 230V 3 wire
125130	3/4 HP 230V 2 wire
125229	3/4 HP 230V 3 wire
125132	1.0 HP 230V 2 wire
125235	1.0 HP 230V 3 wire
125133	1.5 HP 230V 2 wire
125245	1.5 HP 230V 3 wire

ACCESSORIES




REF.	DESCRIPTION	REF.	DESCRIPTION
1	125327 Control box for motor	125227	48" Electrical submersible cable 14-4
1	125328 Control box for motor	125228	100" Electrical submersible cable 14-4
1	125329 Control box for motor	125229	150192ST Electrical submersible cable. 14-4
1	125335 Control box for motor	125235	5 650652 Short bronze tank Tee 1" NPT
1	125345 Control box for motor	125245	5 650651 10" long bronze tank Tee 1" NPT
2	150147S L.O.P. 30/50 Pressure switch	6	650662 10" long bronze Tee 1" NPT
2	150159S L.O.P. 20/40 Pressure switch	6	150155 1" bronze pitless adaptor
3	150152 Splicing kit 3 tubes	6	150176 11/4" bronze pitless adaptor
3	150143 Splicing kit 4 tubes	6	150177 2" bronze pitless adaptor

Repair parts may be ordered from your authorized point of sale or from
BUR-CAM PUMPS

TROUBLE SHOOTING GUIDE CHECKLIST

NEVER MAKE ADJUSTMENTS TO ANY ELECTRICAL APPLIANCE OR PRODUCT WITH THE POWER CONNECTED. DON'T JUST UNSCREW THE FUSE OR TRIP THE BREAKER, REMOVE THE POWER FROM THE RECEPTACLE.

TROUBLE	PROBABLE CAUSE	ACTION
Motor does not run. 	Blown fuse Tripper breaker Inadequate power supply Faulty pressure switch Faulty submersible cable Faulty control box Loose wire connections Sand-locked pump	Replace Reset Check voltage Check / replace Check for breaks in cable Have an electrician, check control box Check and repair Pull pump and check for sand, mud or silt.
Motor starts too often	Waterlogged tank Pressure switch setting incorrect Check valve in pump-end stuck OPEN Leak in piping system	Repeat step 10 Repeat step 9 Check and replace Check and repair piping
Motor runs continuously	Faulty pressure switch Check valve stuck closed Low water level in well Blocked suction intake screen	Check and replace Pull pump and check valve, replace valve Check water level Install pump lower Remove pump and check
Motor runs BUT overload protector TRIPS	Control box location not ventilated-too-HOT Faulty cable or motor Faulty control box Incorrect voltage	Check location and change Have electrician, check for resistance Replace Call an electrician



Under no circumstances should the electrician rating of the overload protector be increased or the protector BY-PASSED in an attempt to breakfree a seized pump. Motor failure invariably results and the warranty is void.

ELECTRICAL TEST: Consult an electrician for all electrical testing.

VOLTAGE TEST: Voltage should be within 10% of the motor name plate if mores or less consult HYDRO Compagny.

AMPERAGE TEST: Locked motor-rotor AMPS 4-5 times normal Amps. IDLE AMPS-Less than normal Amps. Pump may be sand locked-pull and clean.

RESISTANCE TEST: If ohmmeter reading is high-open circuit-low reading indicates there is a "short circuit". Situation must be corrected and further check of all wiring is in order.

WARNING: Serious or fatal electrical shock may result from failure to connect all metal plumbing, and the motor, if pump is used outside a drilled well, to the power supply grounding terminal. Do not install pump in lake around swimming areas.