PUMP REMOVAL AND DISASSEMBLY (CONTINUED)

9. Remove Upper Housing (N) and Motor (T) (Fig. 11)

Note: Keep all parts clean after disassembly.
The Upper Housing Assembly contains small parts.
Be careful not to lose parts after removing Upper Housing.

9.1 Use a 5/32" Allen Wrench to remove the 3 screws (L).
9.2 Before separating the Upper Housing (N) from the Motor (T), place the assembly with the Upper Housing (N) down and the Motor (T) facing up.
9.3 Separate the Upper Housing (N), Valve Housing (R), Lower Housing (S), Poppets (Q), and Springs (P).

Contact an authorized distributor for assistance with diagnosis and replacement Parts.
Refer to page 15 for a Replacement Part Kit list.

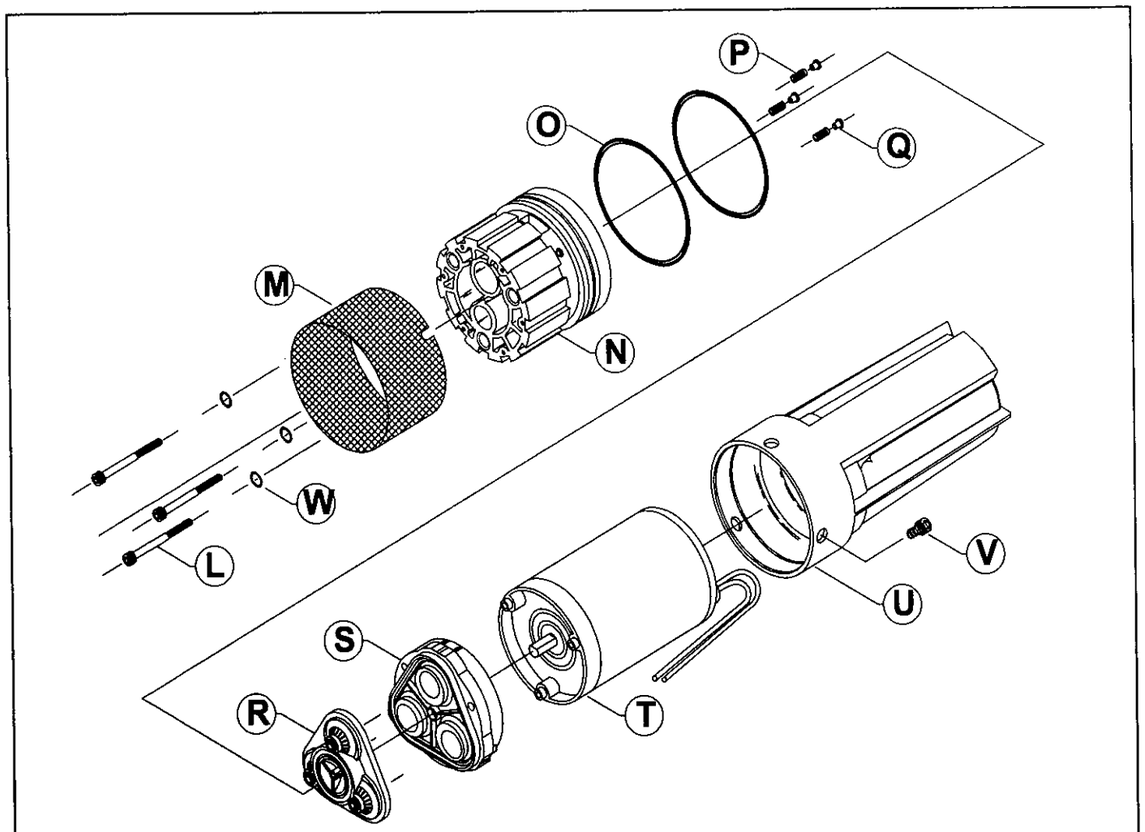


FIGURE 11

III. PUMP RE-ASSEMBLY

Warning **The Order of Assembly is important for proper sealing.**

1. Install the Upper Housing Large O-Rings (O) (Fig. 11 & 12)
1.1 Remove the existing Large O-Rings and thoroughly clean the O-Ring grooves with a dry cloth and a cotton tipped applicator.
Note: Lubricate the O-Rings with the Supplied O-Ring Grease.
DO NOT USE PETROLEUM BASED LUBRICANT.
1.2 Slide the two new Large O-Rings over the Upper Housing (N) and into the O-Ring grooves.
1.3 Place the Upper Housing down with the internal cavities exposed. Turn the Upper Housing until the motor wire holes are directly in front.

2. Install the Bypass Assembly (P and Q) (Fig. 11 & 12)
2.1 Place the Poppets (Q) into the Springs (P).
Note: Make sure that the Poppets are seated flush against the Springs.
2.2 Locate the three bypass cavities and place the Spring/Poppet Assembly into the cavities with the **Poppet up**.

3. Install the Valve Housing Assembly (R) (Fig. 11 & 12)
3.1 Place the Valve Housing Assembly into the Upper Housing (Part N).
Note: Make sure that the inlet valves are centered on top of the bypass Poppets (Q).

4. Install the Lower Housing Assembly (Part S) (Fig. 11 & 12)
4.1 Place the Lower Housing Assembly onto the Valve Housing Assembly (R) (Fig. 12).
Note: **DO NOT** FORCE THE ASSEMBLY.
IT SHOULD SNAP TOGETHER EASILY IN ORDER TO SEAL PROPERLY.

5. Install the Motor (T) (Fig. 11 & 12)
5.1 Lubricate the motor shaft with a small amount of general purpose grease.
5.2 Align the "D" flat of the motor shaft with the "D" flat on the Lower Housing Assembly (S).
5.3 Align the motor lead wires with the Upper Housing (N) wire holes.
5.4 Align the three tabs on the motor (T) with the holes on the Lower Housing Assembly (S) and set the motor onto the Lower Housing.
5.5 Insert the motor lead wires into the Upper Housing motor wire holes.
5.6 Push the wires until they touch the surface that the Upper Housing is resting on.

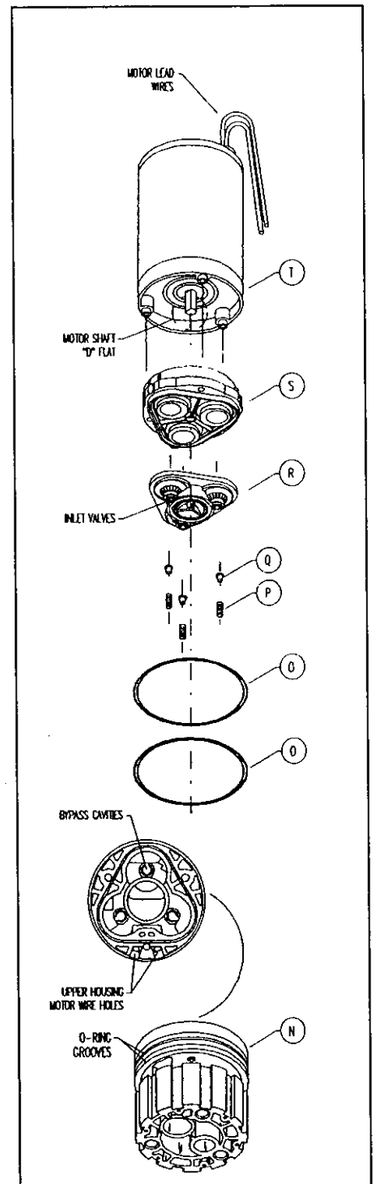


FIGURE 12

PUMP RE-ASSEMBLY (Continued)

6. Install the Canister (U) (Fig. 13)

6.1 Clean the inside of the Canister with a dry cloth.

6.2 Align the wire channel in the canister with the motor lead wires.

6.3 Slide the canister over the entire assembly .

6.4 Twist the canister to align the screw holes and carefully press on the bottom end to seat properly.

7. Install the Screws (V) (Fig. 13)

Note: DO NOT USE MORE THAN 15 (± 5) in-lb [1.7 Nm (± .5)] TORQUE TO PREVENT STRIPPING.

7.1 Using a 3/16" Allen Wrench tighten the screws in 3 places into the Upper Housing (N).

8. Turn the Assembly over as shown in Figure 14

9. Install the Lock Washers (Part W) and Screws (Part L) (Fig. 14)

9.1 Slide the three Lock Washers (W) onto the screws (L) and place the screws in 3 places into the Upper Housing (N).

Note: DO NOT COMPLETELY TIGHTEN ONE SCREW AT A TIME. TIGHTEN THE SCREWS WITH TWO PASSES, SLOWLY COMPRESSING THE ASSEMBLY TOGETHER.

9.2 Using a 5/32" Allen Wrench tighten the screws on the first pass with 25 (± 5) in-lb [2.8 Nm (± .5)] torque.

9.3 Tighten the screws on the second pass with 65 (± 5) in-lb [7.3 Nm (± .5)] torque.

10. Connect the Receptacle (Cable Adapter J) (Fig. 15)

Note: The orientation of the motor lead wires will not affect pump performance.

10.1 Pull the motor lead wires up through the Upper Housing (N) and insert them into the Receptacle (Cable Adapter J).

10.2 Using a 5/64" Allen Wrench hand tighten the screws on the Receptacle (Cable Adapter J) for both wires.

Note: DO NOT TIGHTEN WITH A POWER TOOL.

10.3 Lubricate the outer surface of the Receptacle (Cable Adapter J) with the supplied O-Ring grease.

10.4 Match the flat side of the Receptacle (Cable Adapter J) with the flat side of the hole in the Upper Housing (N).

10.5 Push the Receptacle (Cable Adapter J) into the hole in the Upper Housing (N) until it is seated flush.

10.6 Spread each Receptacle (Cable Adapter J) electrical prong slightly to insure a good electrical connection.

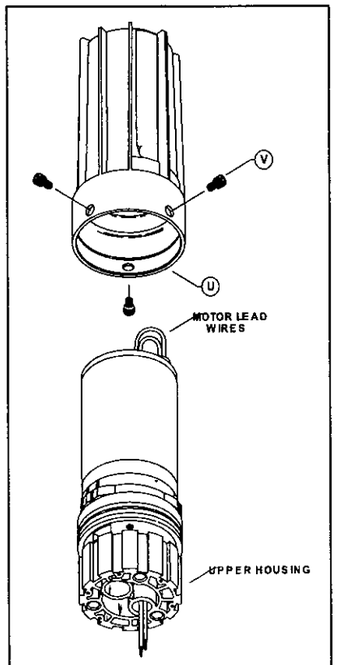


FIGURE 13

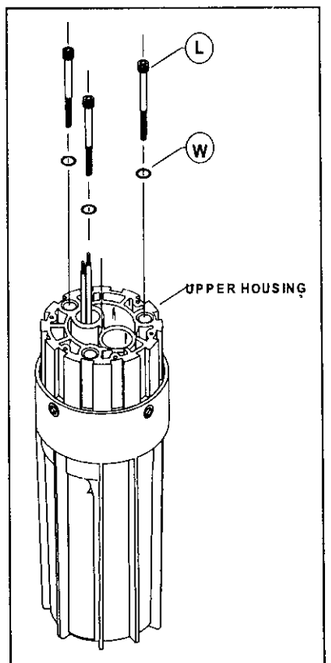


FIGURE 14

II. PUMP REMOVAL AND DISASSEMBLY

Warning: **Make sure all electrical power is off and the Hose (Pipe) is not under pressure.**

Warning: **Canister may be pressurized. Disassemble the pump in proper order. Follow the directions carefully.**

Note: **Keep all of the parts clean after disassembly. Upper Housing Assembly contains small parts. Be careful not to lose parts after removing Upper Housing (N) in step 9.**

1. Turn Off All Electrical Power

2. Remove the Pump from the Well

NOTE: To prevent damage to the Electrical Connection **DO NOT PULL ON THE ELECTRICAL CORD OR USE IT TO LIFT THE PUMP OUT OF THE WELL.**

3. Disconnect the Hose

3.1 Remove the Hose clamp.

3.2 Pull and twist the hose to remove it from the fitting.

4. Unplug the Cable Adapter Assembly (Fig 10)

4.1 Remove the Nut (D) unscrewing it counterclockwise and pull the plug up.

5. Remove the Lift Plate (F) (Fig. 10)

5.1 Use a #2 Phillips Screwdriver to remove 6 screws (E).

5.2 Pull up the Lift Plate (F).

Note: Be sure to put the O-Rings (I) back on the Lift Plate Posts (F). (Fig. 11, View B) before continuing to Step 6.

6. Remove the Filter Screen (M) for Cleaning

6.1 Slide the Filter Screen (M) out of the Canister (U).

6. Remove the Outlet Fitting (G) (Fig. 10)

6.1 Pull the Fitting (G) straight out from the Upper Housing (N).

7. Remove the Receptacle (Cable Adapter) (J) (Fig. 10)

Note: **DO NOT** PULL ON THE ELECTRICAL PRONGS.

7.1 Using pliers, **carefully** pull up on the shoulder of the Receptacle (Cable Adapter) (J).

7.2 Pull Cable Adapter (J) completely out of the Upper Housing (N).

7.3 Use a 5/64" Allen Wrench to loosen the 2 screws (K) holding the motor leads and disconnect the Receptacle (Cable Adapter) (J).

8. Remove the Canister (U) (Fig. 11)

8.1 Use a 3/16" Allen Wrench to remove the 3 screws (V).

8.2 Holding the Upper Housing (N) and the Canister (U), twist and pull the Assembly apart.

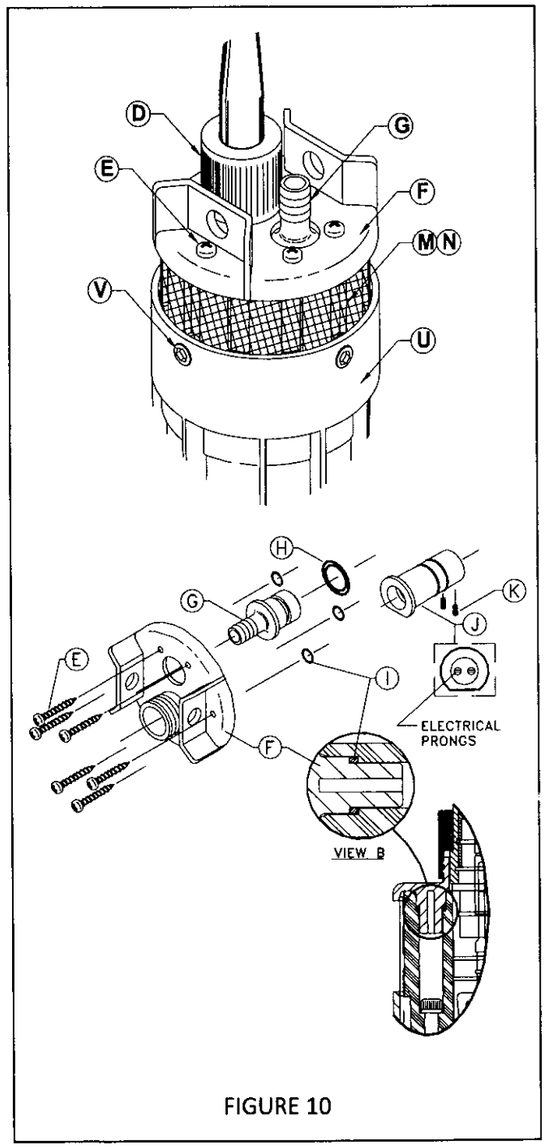


FIGURE 10

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	CORRECTION
PUMP OPERATES: NO FLOW or REDUCED FLOW	1. LOW VOLTAGE	1. CHECK POWER SUPPLY FOR PROPER VOLTAGE. REFER TO TECHNICAL SPECIFICATIONS
	2. NO WATER AT PUMP	2. MAKE SURE THE PUMP IS INSTALLED BELOW THE LOWEST ANTICIPATED WATER LEVEL REFER TO INSTALLATION SECTION
	3. PUMP LOCATED TOO DEEP	3. REFER TO INSTALLATION SECTION FOR PUMP OPERATING RANGE
	4. CLOGGED FILTER SCREEN	4. REMOVE FILTER SCREEN AND RINSE REFER TO REMOVAL AND DISASSEMBLY
	5. FLUID PATH IN PLUMBING RESTRICTED	5. CHECK FOR PINCHED HOSE and CLOGGED LINES
	6. LOOSE CONNECTIONS or PUNCTURED HOSE.	6. CHECK HOSE CLAMPS or REPLACE HOSE
PUMP WILL NOT OPERATE:	1. INCORRECT POWER SUPPLY	1. CHECK POWER SUPPLY REFER TO PUMP TECHNICAL SPECIFICATIONS
	2. WIRE CONNECTIONS	2.1 CHECK ELECTRICAL CONNECTIONS ON SYSTEM 2.2 CHECK THE CABLE PLUG ELECTRICAL CONNECTION FOR CORROSION OR LOOSENESS REFER TO CABLE BOOT INSTALLATION INSTRUCTIONS FOR DISASSEMBLY AND REASSEMBLY 2.3 CHECK FOR BLOWN FUSES IN-LINE

CONTACT AN AUTHORIZED DISTRIBUTOR FOR FURTHER ASSISTANCE

Go to www.shurflo.com for a list of SHURflo Solar Distributors

PUMP RE-ASSEMBLY (Continued)

11. Install the Filter Screen (M) (Fig. 16)

11.1 Slide the Filter Screen (M) onto the Upper Housing (N).

11.2 Align the slots in the Filter Screen (M) with the screws (V) in the Upper Housing (N) and slide the Filter Screen (M) over the screws (V).

12. Install the Outlet Fitting (G) (Fig. 16)

12.1 Lubricate the O-Ring (H) and slide it into the O-Ring groove on the Outlet Fitting (G).

12.2 Push the Outlet Fitting (G) into the hole in the Upper Housing (N).

13. Install the Lift Plate (F) with three the O-Rings (I) on the posts (Fig. 16)

13.1 Lubricate 3 O-Rings (I) and slide them on the Lift Plate (F) posts located on the bottom side of the Lift Plate (F).

13.2 Align the three posts with the Upper Housing (N) screw holes and press on the Lift Plate (F) until it is flush against the Upper Housing (N).

Note: **DO NOT** USE MORE THAN 20 (± 5) in-lb [2.25 Nm (± .5)] TORQUE TO PREVENT STRIPPING .

13.3 Using a #2 Phillips Screwdriver install the screws (E) 6 places into the Lift Plate (F).

14. Install the Plug (Cable Adapter) Assembly

Note: The orientation of the Plug (Cable Adapter J) will not affect performance.

Note: IF IT BECOMES NECESSARY TO REASSEMBLE THE PLUG ASSEMBLY, REFER TO PUMP CONNECTIONS & INSTALLATION INSTRUCTIONS.

14.1 Align the Plug connector holes with the electrical prongs in the Receptacle (J).

14.2 Push the Plug into the Receptacle (J) until the collar is seated flush.

14.3 Push the Nut (Part D) over the Plug (Cable Adapter) and finger tighten the nut.

Note: Before placing the pump back into the well, operate the pump to check all electrical connections using the correct power supply. Refer to Technical Specifications (Pg. 14).

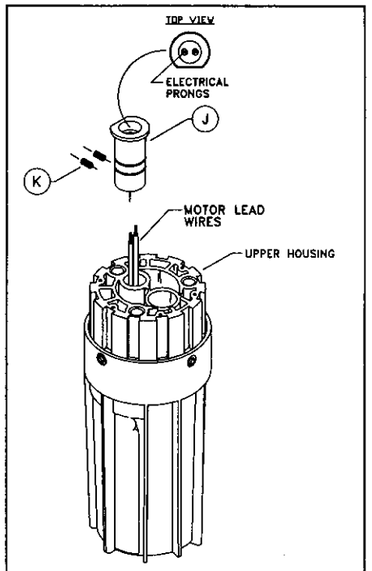


FIGURE 15

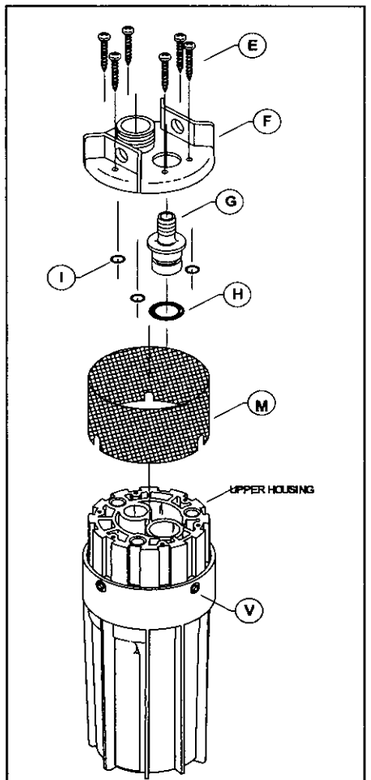
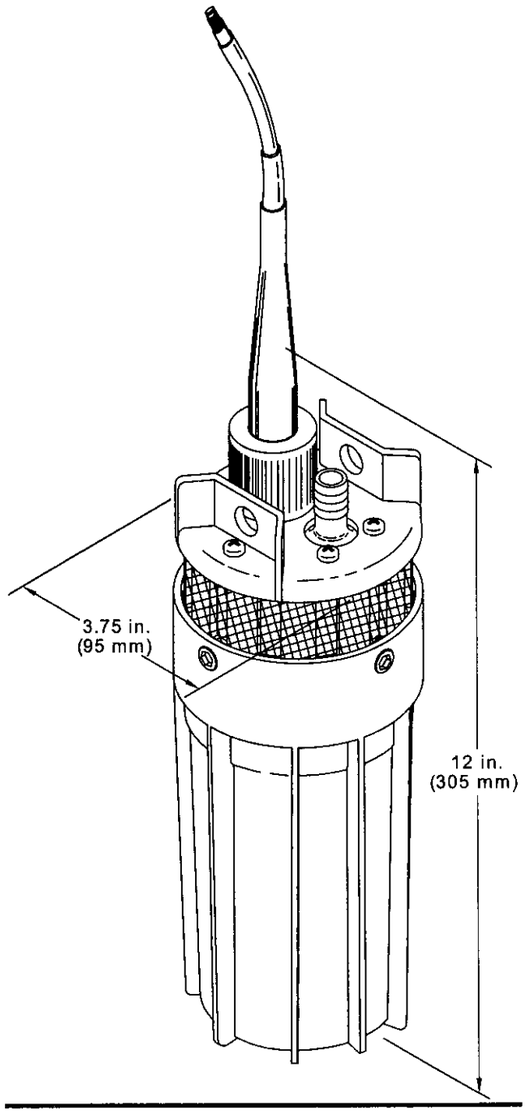


FIGURE 16

SPECIFICATIONS

MODEL NUMBER:	9325-043-101
PUMP DESIGN:	Positive Displacement 3 Chamber Diaphragm Pump
CAM:	3.0 Degree
MOTOR:	Permanent Magnet, P/N 11-175-00 Thermally protected
VOLTAGE:	24 VDC Nominal (Reduced Volume @ 12VDC)
WATTS:	120W
AMPS:	4.0 MAX
FUSE:	7.5 AMP (Automotive) Not Included
INTERNAL BYPASS:	105-110 P.S.I. MAX (7.2-7.5 bars)
MAXIMUM LIFT:	230 ft (70 M)
SUBMERSION:	100ft (30 M) Maximum Below Waterline
OUTLET PORT:	1/2" (13 mm) Barbed Fitting
INLET:	50 Mesh Stainless Steel Screen
MATERIALS:	High Strength Plastics Stainless Steel Hardware
APPLICATION:	Potable water well pump
NET WEIGHT:	6 lbs (2.72 kg)



Design and specifications are subject to change without notice

NOTES:

PUMP CONNECTION & INSTALLATION INSTRUCTIONS (Continued)

Notes:

Prior to installing the pump, fill in the Application Worksheet on page 3.

The Application Worksheet is a guide to make sure that the pump is installed properly in the well.

Following the guidelines laid out in the Application Worksheet will allow the pump to perform efficiently and extend the life of the unit.

Maximum pump submersion level below the static water level is 100 feet.

Refer to **TROUBLESHOOTING on page 8** if you experience any difficulties.

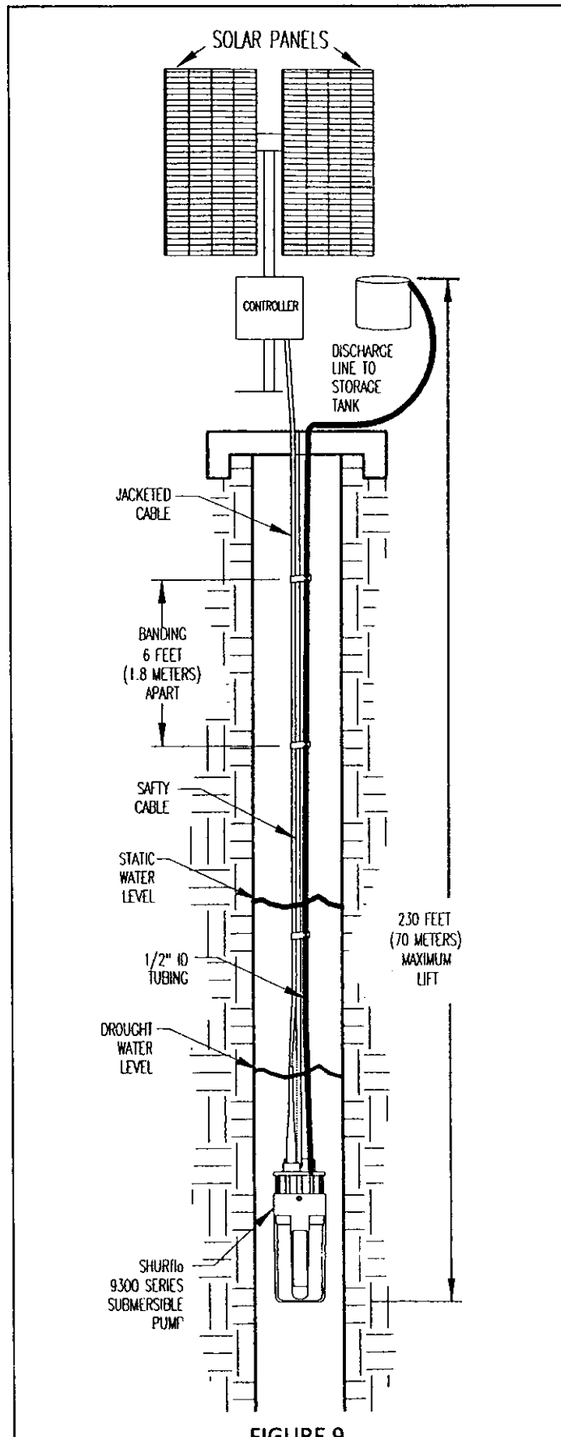


FIGURE 9