

SEARS

OWNER'S MANUAL

MODEL NO.

390.304551

390.304611

390.304691

CAUTION:

Read and Follow
All Safety Rules and
Operating Instructions
Before First Use of
This Product.

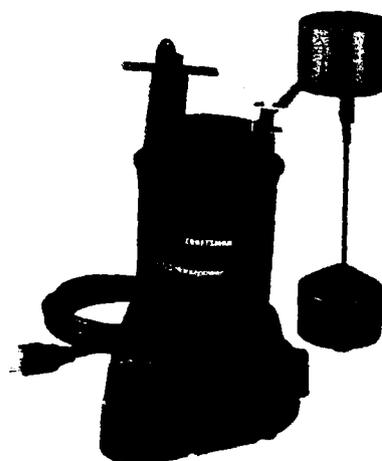
Save This Manual For
Future Reference.



Model No. 390.304551 - 1/4 HP



CRAFTSMAN Model
No. 390.304611 - 1/3 HP



CRAFTSMAN Model
No. 390.304691 - 1/3 HP

SUBMERSIBLE SUMP PUMP

- Safety Instructions
- Installation
- Electrical
- Service
- Repair Parts

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.

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INTRODUCTION

Please read our instructions before you install and use your new pump; this will help you obtain full value and good service from it. It will also help you avoid needless service costs that result from causes we cannot control and cannot cover in our warranty.

FULL ONE YEAR WARRANTY ON SEARS SUBMERSIBLE SUMP PUMPS

During the first year after the date of purchase, Sears will repair or replace this pump, free of charge, if defective in materials or workmanship.

This warranty does not cover repairs on replacement parts necessary because of abuse or negligence including failure to install, adjust and operate this pump according to the instructions in the owner's manual.

LIMITED WARRANTY ON CRAFTSMAN SUBMERSIBLE SUMP PUMPS

During the second year after the date of purchase, Sears will furnish, free of charge, a replacement part for any defective part. You pay for labor.

LIMITATION OF LIABILITY

SEARS WILL NOT BE LIABLE FOR LOSS OR DAMAGE TO PROPERTY OR ANY INCIDENTAL OR CONSEQUENTIAL LOSS OR EXPENSE FROM PROPERTY DAMAGE DUE DIRECTLY OR INDIRECTLY FROM THE USE OF THIS PRODUCT.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

WARRANTY SERVICE IS AVAILABLE BY SIMPLY CONTACTING THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES OF AMERICA. For service outside the U.S.A., contact your local Sears Service Center or store.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears, Roebuck and Co., Dept. 817 WA, Hoffman Estates, IL 60179

RULES FOR SAFE INSTALLATION AND OPERATION

Carefully read and follow all safety instructions in this manual or on pump.

▲ This is the safety alert symbol. When you see this symbol on your pump or in this manual, look for one of the following signal words and be alert to the potential for personal injury!

▲ DANGER warns about hazards that will cause serious personal injury, death or major property damage if ignored.

▲ WARNING warns about hazards that will or can cause serious personal injury, death or major property damage if ignored.

▲ CAUTION warns about hazards that will or can cause minor personal injury or property damage if ignored.

The word **NOTICE** indicates special instructions which are important but not related to hazards.

Electrically powered sump pumps normally give many years of trouble-free service when correctly installed, maintained, and used. However, unusual circumstances (interruption of power to the pump, dirt/debris in the sump, flooding that exceeds the pump's capacity, electrical or mechanical failure in the pump, etc.) may prevent your pump from functioning normally. To prevent possible water damage due to flooding, consult your local Sears store about installing a secondary sump pump or a DC backup sump pump. See "Service", Page 5, for information about common sump pump problems and remedies.

1. To avoid risk of serious bodily injury and property damage, read safety instructions carefully before installing pump.
2. Follow local and/or national plumbing and electrical codes when installing pump.

3. **▲ WARNING** To avoid fatal shocks, proceed as follows if pump needs servicing:

A. **Disconnect power to pump outlet box before pulling pump cord plug.** After plug is pulled, let pump cool for 20 minutes before attempting to work on it. Modern motors are designed to operate at high temperatures.

B. **Take extreme care when changing fuses.** To reduce the chance of fatal electrical shocks, **DO NOT** stand in water or put your finger in the fuse socket.

C. **Ground** the electrical outlet box.

D. **Use only a Ground Fault Circuit Interrupter (GFCI) protected grounded outlet for cord plug.**

4. **Never run pump dry.** To do so can damage internal parts, overheat the pump (which can cause burns to people handling or servicing the pump), and **will void the warranty!**
5. **DO NOT** attempt to oil the pump motor. A special oil has been put into the motor housing at the factory; use of any other oil will void the warranty and could damage the pump.
6. This pump is recommended for use in permanent installations only. Pump water only with this pump.

ADDITIONAL INSTALLATION MATERIALS

SEARS Sump/Utility Pump Hose Kit, Stock No. 27909, containing 24' (7.3M) of 1-1/4" flexible plastic pipe, a 1-1/4" plastic adapter and a stainless steel clamp.

Check Valve, SEARS Stock No. 2789.

INSTALLATION

THE SUMP

The sump should be located at the lowest place in the basement or area to be drained. Floor drains from other areas in the basement may be tiled into the sump. Drain tile around a house foundation can also be tiled into the sump, effectively removing water and relieving pressure from this area. A suitable sump can be a 20" or 24" (500-610mm) sewer tile. The minimum size is 12" (305mm) in diameter for Models 390.304551 and 390.304611; 10" (254mm) for Model 390.304691.

A sump cover is desirable to exclude refuse from the sump. Consult local code for sump cover specifications.

NOTICE: Periodically inspect pump, system components, and sump for debris and foreign objects. Keep sump free of all refuse. Perform routine maintenance as required.

PUMP INSTALLATION

Set the pump on the bottom of the sump, making sure that it sits solidly and is level. Be sure there is enough space around the pump to allow the switch free movement as the sump water level changes. Pump should not be installed on clay, earth, or sand surfaces.

CAUTION Risk of flooding. If a flexible discharge hose is used, pump may move around in sump when motor starts. If it moves far enough so that the switch hits the side of the sump, the switch may stick and prevent pump from starting. Make sure that pump is secured so that it cannot walk around in sump.

Hose Kit No. 27909 includes 1-1/4" flexible plastic pipe for the discharge pipe. Run discharge pipe to the nearest sewer outlet or other point of disposal. Use the most direct route and the fewest turns and elbows possible. Make sure that pump cannot move around in sump pit.

Use teflon tape to seal threads in plastic pipe. Hand tighten only.

NOTE: To avoid backflow into sump when pump shuts off, install a SEARS Check Valve, Stock No. 2789, in threaded discharge port of pump. Be sure arrow on check valve body points away from the pump. This Sears check valve is equipped with an air bleed hole to prevent airlocking pump. If using any other check valve, drill 1/8" (3.2mm) hole in discharge pipe just above pump body but below check valve to prevent air locks.

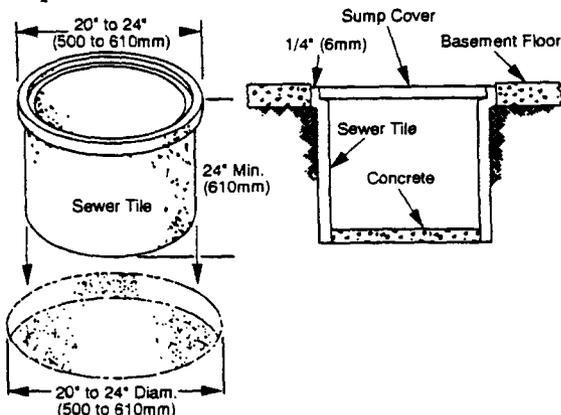


FIGURE 1

FLOAT SWITCH INSTALLATION AND OPERATION (Models 390.304551 and 390.304611; For Model 390.304691, see Page 7)

The automatic float switch is factory mounted on the pump and preset for a pumping range of approximately 7". Tether length is factory preset at 3-1/2" (89mm) (see Figure 3). Do not change tether length.

Be sure automatic float can swing freely through its entire arc without interference from pump, piping, sump wall or any other object.

When sump is dry, the watertight automatic float switch is hanging in a downward position and the pump is off.

As water comes into the sump, the automatic float switch rises to an upward position and the pump starts.

Water will continue to be pumped until the float switch is hanging in the downward position again, when pump will stop.

WARNING Risk of electric shock. Before installation, check your local electrical codes. To avoid personal injury when servicing your pump, be sure that the power is disconnected from both the pump and the float switch.

To check operation, fill sump with water and observe operation through one complete cycle.

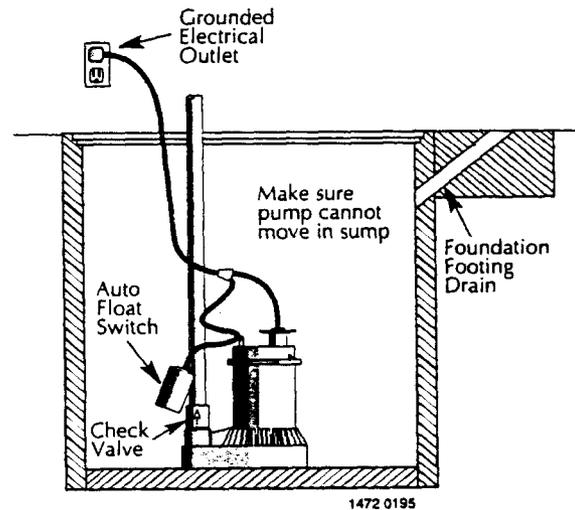


FIGURE 2 – Models 390.304551 and 390.304611

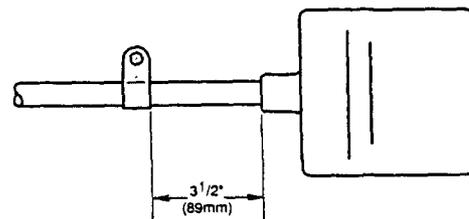


FIGURE 3 – Tether Length

DO NOT ALLOW PUMP TO RUN DRY

Pump should not be allowed to run dry prior to shutting off. To do so voids the warranty and could ruin the pump.

ELECTRICAL

ELECTRICAL CONNECTIONS

⚠ WARNING Risk of electric shock. This pump is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electric shock, be certain that it is connected only to a properly grounded, grounding-type receptacle.

The Sump Pump has a 3-prong electric plug. The third prong is used to ground the pump to prevent possible fatal shock. The third prong should never be removed. Your electrical outlet should be the 3-prong, polarized type with an internal ground.

A separate 15 amp branch electrical circuit is recommended. **DO NOT USE AN EXTENSION CORD.**

Testing For Ground

For your safety, check your outlet for ground using an Underwriters Laboratory Listed Circuit Analyzer. (Figure 4A). A Circuit Analyzer will tell you by a pattern of lights if the power, neutral, and ground wires are correctly connected to your outlet. It can also be used to check other outlets in your home. A Circuit Analyzer is available in the Sears Electrical Department.

Grounding Outlet

If your outlet is not grounded, install a copper wire (at least 14 gauge) from the outlet box, as shown in Figure 4B, to a metal cold water pipe. Use ground clamp on pipe.

IMPORTANT: The cold water pipe you use as a ground must have metal continuity to electrical ground. If continuity is interrupted by plastic, rubber, or other electrical insulators; such as hoses, fittings, washers or gaskets (including water meter or pump), a metal bypass must be used. Any electrically insulated connector should be jumped (as shown in Figure 4C), with a length of No. 4 wire clamped securely at both ends.

Automatic Thermal Overload Protection

This pump motor has a built-in automatic thermal overload protector. If the motor overheats, the protector will open and cut off power to the motor before the heat damages it internally. The overload will reset automatically and the pump will restart after the pump cools down below the danger point.

⚠ WARNING **DO NOT** attempt to work on the pump or motor if the overload seems to have tripped. The motor may restart without warning at any time. You could be injured and the pump damaged if it starts when you are working on it. Remove all power from pump before attempting to work on it.

DO NOT attempt to repair a non-operational sump pump. Take it to Sears for service by a qualified technician.

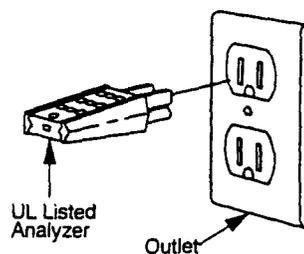


FIGURE 4A

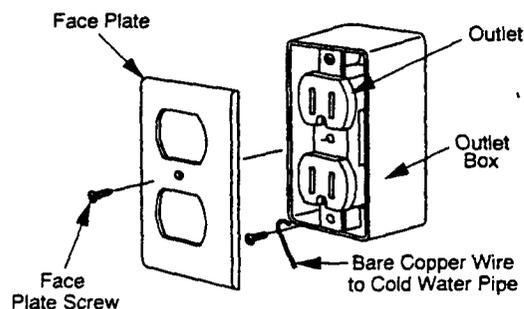


FIGURE 4B

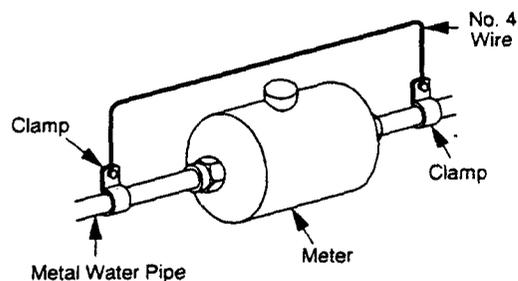


FIGURE 4C

Generator Sizing

Below is the minimum Engine-Generator Watt rating required to power this pump motor. Any additional loads, such as lights, must be added to the listed load and the generator sized accordingly.

Pump Model	HP	Minimum Watt Rating of Generator
390.304551	1/4	3000
390.304611	1/3	4500
390.304691	1/3	4500

SERVICE

General

⚠ WARNING Risk of electric shock. When servicing pump always disconnect power to electrical outlet and remove pump electric cord from outlet.

1. If pump does not operate:
 - a. Check for loose plug at electric outlet.
 - b. Check for blown fuses or tripped circuit breakers at fuse box/circuit breaker box.
 - c. Be sure nothing interferes with action of automatic float switch.
 - d. If a, b, and c above check OK, plug in a light that you know works. If it lights, take your pump to Sears for service. If it doesn't light, the electrical circuit is faulty; consult a licensed electrician.

2. Pump starts, but blows fuses/trips circuit breakers:

After disconnecting power to pump, remove it from sump. Remove the plate from the bottom of the pump and make sure that the impeller turns freely. Remove any debris obstructing impeller. If pump still does not operate correctly, return it to your nearest Sears Service Department for repairs.

3. Pump runs, but does not empty sump:

- a. Clean pump intake screen.
- b. Water may be entering sump faster than the pump can discharge it.
- c. Be sure vertical distance from pump discharge outlet to discharge pipe outlet does not exceed specifications. See chart below.
- d. Be sure discharge pipe is not plugged or frozen.
- e. Be sure check valve is operating correctly.

⚠ WARNING Risk of electric shock. Unplug pump before attempting to service or remove any component.

1. The motor in the unit is sealed in oil. No additional lubrication is necessary.
2. **NOTICE:** Disassembly of the motor assembly will void warranty. It might also cause internal leakage and damage to the unit. If motor fails, replace entire pump.
3. Keep inlet screen clean and free of all foreign objects.

Pump Cleaning

1. **NOTICE:** Attempting to disassemble motor will void warranty.
2. To clean impeller, remove eight screws holding baseplate to motor assembly. Clean/replace impeller as necessary. To remove impeller, unscrew it from motor shaft.
3. Re-install baseplate and screws.

FLOAT SWITCH REPLACEMENT (Models 390.30455 I and 390.30461 I; For Model 390.30469 I, see Page 7)

NOTICE: Float must be able to swing through its complete arc without interference from sidewall of sump, plumbing or any other object.

1. Unplug pump power cord from receptacle.
2. Remove tether clamp screw and slide cord from clamp. Unscrew tee-handle from pump body.
3. Insert new cord in tether clamp in same location on cord with respect to float. Install tee-handle in pump and tighten.
4. Tighten tether clamp screw.
5. Check sump pump operation by filling sump with water and observing operation through one complete cycle.

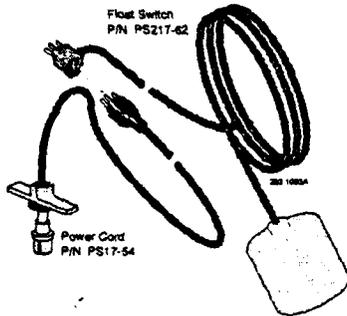
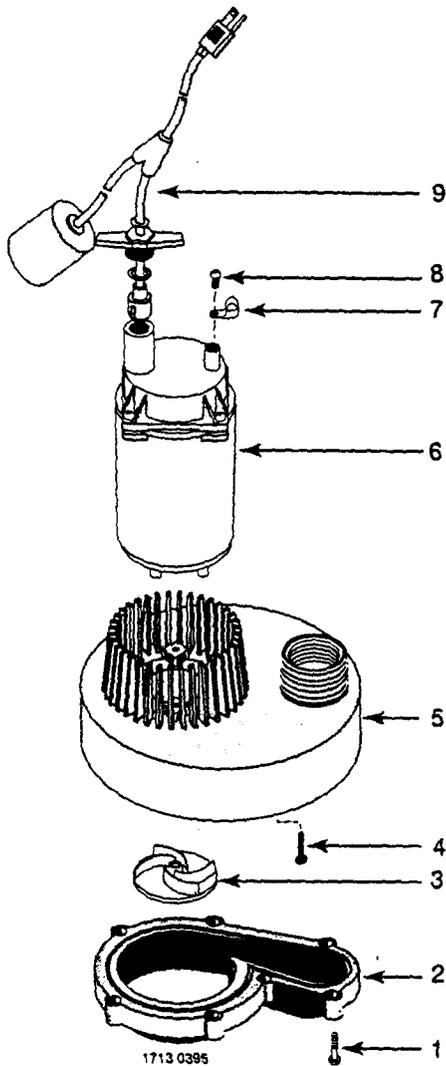
⚠ WARNING Failure to check installation with water in sump can lead to improper operation, premature pump failure and flooding.

SPECIFICATIONS

Stock Number	HP	Maximum Amps	Dimensions in inches (mm)			GPM (L/min.) at Vertical Pumping Distance in Feet (M)				
			Length	Width	Height	5'(1.6)	10'(3)	15'(4.6)	18'(5.5)	20'(6.1)
30455	1/4	8.5	8-1/2"(216)	8-1/2"(216)	9-3/4"(248)	38(144)	27(102)	11(41.6)	-	-
30461	1/3	13.0	9"(229)	6-1/2"(165)	11-1/2"(292)	50(189)	41(155)	28(106)	15(57)	3(11.4)
30469	1/3	13.0	9"(229)	6-1/2"(165)	11-1/2"(292)	50(189)	41(155)	28(106)	15(57)	3(11.4)

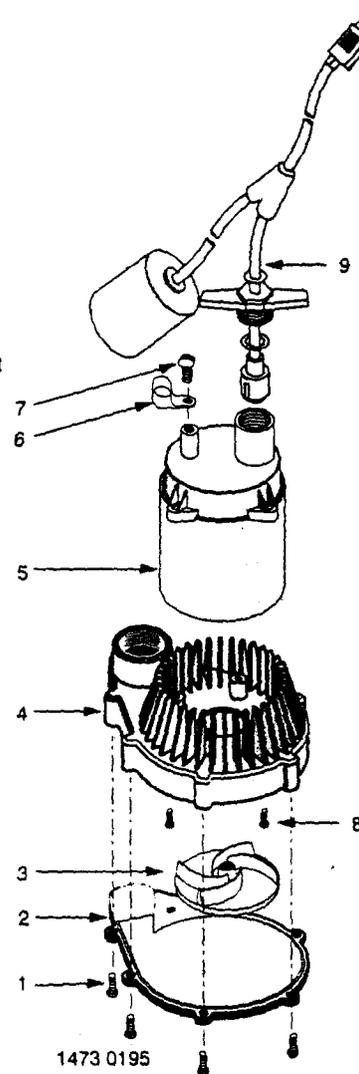
REPAIR PARTS

Sears Submersible Pump Model 390.30455 I



Pump will have either Y-Cord arrangement (item 9) or Power Cord / Switch arrangement as shown above.

Craftsman Submersible Pump Model 390.30461 I



PARTS LIST

Key No.	30455 Part No.	Part Description
1	U30-956ZP	Pump Body Screw #8 x 1/2 Type A (7 Req.)
2	PS1-30P	Lower Pump Body
3	RP0000917	Impeller
4	U30-912PS	Screw, Motor Housing (4 Required)
5	PS1-32P	Upper Pump Body
6	**	Motor
7	CC0030-13	Cable Clamp
8	U30-955SS	Cable Clamp Screw #8 x 5/8 Type A
9	PS17-68	Float Switch
•	F642-9612	Owner's Manual

• Not illustrated ** If motor fails, replace entire pump.

To Order Parts in the U.S.A., Call
Sears Product Service, 1-800-366-7278

PARTS LIST

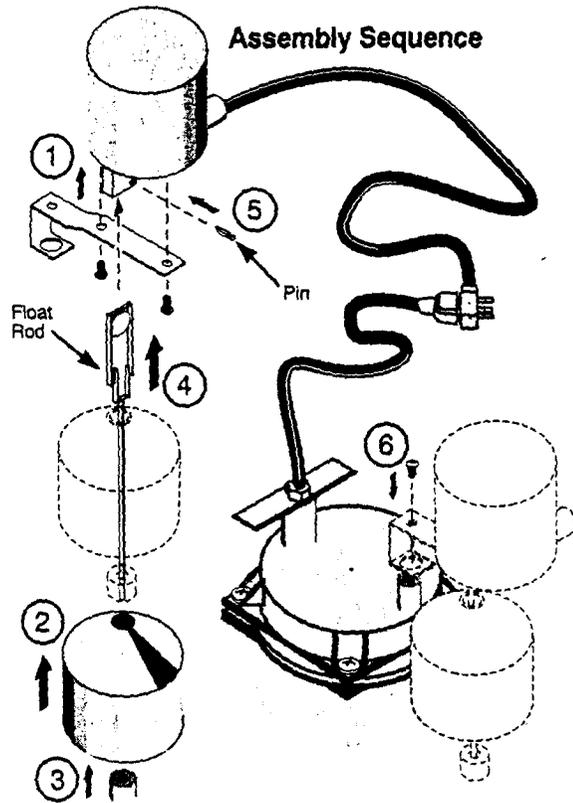
Key No.	30461 Part No.	Part Description
1	U30-956ZP	Baseplate Screw #8 x 1/2 Type A (8 Req.)
2	PS4-17P	Baseplate
3	RP0000911A	Impeller
4	PS1-29P	Volute
5	**	Motor Assembly Complete
6	CC0030-13	Cable Clamp
7	U30-955SS	Cable Clamp Screw #8 x 5/8 Type A
8	U30-912PS	Screw (4 Required)
9	PS17-67	Float Switch
•	F642-9612	Owner's Manual

• Not illustrated ** If motor fails, replace entire pump.

To Order Parts outside the U.S.A., Contact
Your local Sears Service Center or Store

REPAIR PARTS

Vertical Switch Assembly



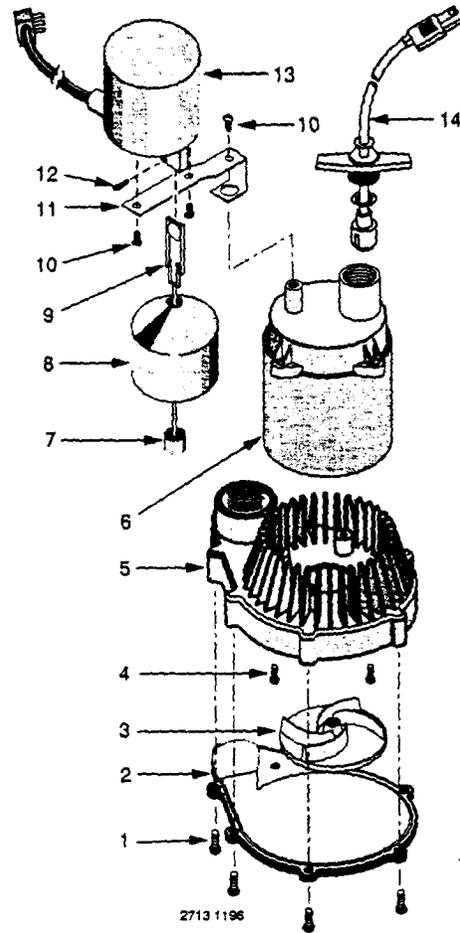
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CAUTION Make sure pin holds float rod in switch housing; otherwise pump will not shut off.

To check switch operation, run pump through one complete cycle after installation.

WARNING Risk of electrical shock. Can burn or kill. Plug pump and switch into a grounded electrical outlet only.

Craftsman Submersible Pump Model 390.304691



2713 1196

PARTS LIST

Key No.	30469 Part No.	Part Description
1	U30-956ZP	Baseplate Screw #8 x 1/2 Type A (8 Req.)
2	PS4-17P	Baseplate
3	RP0000911A	Impeller
4	U30-912PS	Screw (4 Required)
5	PS1-29P	Volute
6	**	Motor Assembly Complete
7	RP0005248	Float Stop
8	PS28-18	Float
9	PS28-17	Rod
10	U30-955SS	Clamp Screw #8 x 5/8 Type A (3 Req.)
11	PS19-18SS	Bracket
12	PS30-3	Pin
13	PS17-66	Switch Housing
14	PS17-53	Power Cord and Plug
•	F642-9612	Owner's Manual

• Not illustrated ** If motor fails, replace entire pump.

To Order Parts outside the U.S.A., Contact
Your local Sears Service Center or Store