

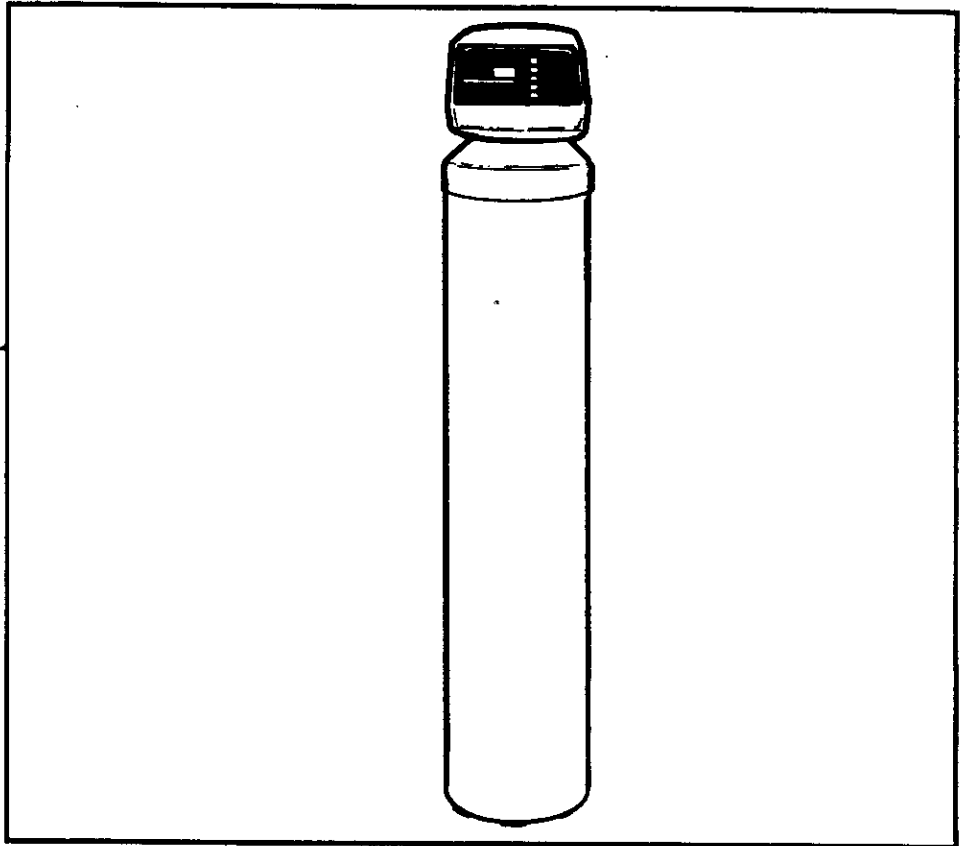
SEARS

**OWNERS
MANUAL**

**MODEL NO.
625.348230**

CAUTION
Read All Safety
Guides Before
You Start to
Install Your
Filter

SAVE THIS MANUAL



Kenmore CLARIFYING FILTER

- HOW TO INSTALL —
- HOW IT WORKS —
- CARE OF —
- SPECIFICATIONS —
- REPAIR PARTS —

Sears, Roebuck and Co., Chicago, IL 60684 U.S.A.

WARRANTY

SEARS RESIDENTIAL WATER FILTER

FULL ONE YEAR WARRANTY ON FILTER

For one year from the date of purchase, when this water filter is installed and maintained in accordance with our instructions, Sears will repair, free of charge, defects in material or workmanship in this water filter.

FULL FIVE YEAR WARRANTY AGAINST LEAKS

For five years from the date of purchase, Sears will furnish and install a new current model water filter tank, free of charge, if the tank develops a leak.

TO OBTAIN WARRANTY SERVICE, SIMPLY CONTACT THE NEAREST SEARS SERVICE CENTER THROUGHOUT THE UNITED STATES. "This warranty applies only while this product is in use in the United States."

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

Sears, Roebuck and Co., Dept. 731-CR-W, Sears Tower, Chicago, IL 60684

If you want your clarifying filter professionally installed, talk to your Sears Salesperson who will arrange a prompt, quality installation by Sears Authorized Installers.

SEARS INSTALLATION POLICY

All installation labor arranged by Sears shall be performed in a neat, workmanlike manner in accordance with generally accepted trade practices. Further, all installations shall comply with all local codes, regulations and ordinances. Customer shall also be protected, during installation, by insurance relating to Property Damage, Workman's Compensation and Public Liability.

SEARS INSTALLATION WARRANTY

In addition to any warranty extended to you on the Sears merchandise involved, which warranty becomes effective the date the merchandise is installed, should the workmanship of any Sears arranged installation prove faulty within one year, Sears will, upon notice from you, cause such faults to be corrected at no additional cost to you.

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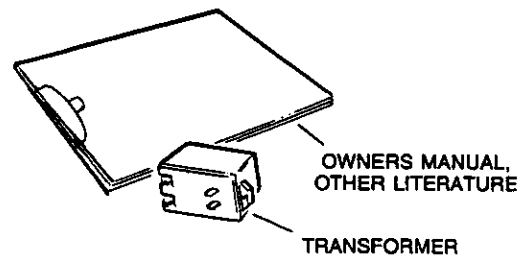
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REMOVE PACKAGING

UNPACKING - Discard the carton, inserts, foam pieces, and other packing items. **DO NOT** throw away the small parts bag or the transformer.

NOTE:
Check the filter (and carton) for shipping damage. If you find damage, call your Sears store for help.

SMALL PARTS BAG
(See page 9)



SECTION 1 SAFETY GUIDES, THE CLARIFYING FILTER

▲ Read all steps, guides and rules carefully before installing and using your new water filter. Follow all steps exactly to correctly install. Failure to follow them could cause personal injury or property damage. Reading this book will also help you to get all of the benefits from your water filter.

▲ Check with your local public works department for plumbing and sanitation codes. You must follow their guides as you install your filter.

▲ Protect the filter and piping from freezing, see page 19. Damage from freezing voids the filter warranty.

▲ Use only LEAD-FREE SOLDER AND FLUX, as required by Federal and State codes, when installing soldered copper plumbing.

▲ Your clarifying filter will clean your water as stated below. It will not soften hard water or remove iron. It will not purify polluted water or make it safe to drink.

PLEASE READ AND COMPLY WITH THE FOLLOWING GUIDES TO PREVENT DAMAGE TO THE FILTER OR OTHER PROPERTY, PERSONAL INJURY, OR POSSIBLE FATAL SHOCK.

▲ THIS FILTER WORKS ON 24 VOLTS ONLY. BE SURE TO USE THE TRANSFORMER INCLUDED, AND PLUG IT INTO A 120V OUTLET.

▲ Be sure the electric outlet for the transformer is grounded the right way.

▲ Unplug the transformer right away if the power cable should become damaged or frayed. Make repairs before plugging back into the power outlet.

▲ Always unplug the filter from electrical power before removing outer valve covers.

▲ Connect the filter to the house COLD water (120° max.) pipe only. DO NOT CONNECT TO HOT WATER.

When you see this sign in the book, ▲ something could be damaged, or someone hurt, if the guide is not followed exactly.

WHAT YOUR CLARIFYING FILTER WILL DO

A Sears Clarifying Filter takes sediments such as dirt, sand, silt, clay, and fine organic matter out of water. You can see sediments in water by filling a clear drinking glass. When held up to light, you can see the particles floating in the water, or settled to the bottom of the glass. The filter is filled with "filter aggregate" mineral that traps and holds the sediments as the water flows through it.

The Clarifier is sometimes installed alone, but is often followed by a water softener. Besides softening the water,

the water softener catches sediments that may get through the filter. Sears Water Analysis Laboratory will test your water and tell you what equipment you need (see page 5).

NOTE: If you will install the clarifying filter along with a Sears Solution Dispensing System, read the dispensing system owners manual for treating a private well before installing.

SECTION 2 BEFORE YOU START TO INSTALL

HELPFUL INFORMATION

If you know little about plumbing skills, we suggest you get a book on the subject. There are many good books for do-it-yourselfers on the basics of plumbing.

You can get a low cost book from Sears Plumbing and Heating departments that will help you. If you have soldered before, some basic sweat soldering tips are on page 20 of this manual.

WATER SYSTEM TESTS

HAS YOUR WATER SUPPLY HAD A CHEMICAL ANALYSIS? Sears has many kinds of water treating units (see page 6) to correct different water problems. To know the kind and size of unit you need, you must first know what elements are in your house water supply. A chemical analysis shows the type and amounts of elements in water. If your water needs analysis, call or write your nearest Sears store for help.

CHECK YOUR WATER PRESSURE – For your filter to work right, a water pressure of no lower than 20 pounds per square inch (psi) is needed in the house water pipes. The highest pressure allowed in the water pipes is 125 psi. If pressure is over 125 psi, buy and install a pressure reducing valve in the water inlet pipe to the filter. **NOTE:** If water pressure during the day is 100 psi or more, pressure during the night may go over 125 psi.

If you have a well water system, look at the pressure gauge to find the water pressure. Call your local water department if you have city water. They will tell you what the water pressure is where you live.

CHECK YOUR WATER FLOW RATE – A water flow of 5½ to 7 gallons per minute is needed. A lower flow will keep your filter from working as well as it should. To make an easy check of your flow rate, do the following. You will need a 1 gallon container (can, jar, pail, etc.).

1. Fully open 2 cold water faucets close to the point water enters the house.
2. With both faucets open, fill the gallon container at 1 faucet while looking at a watch or clock to see how many seconds it takes.
3. Empty the container and go to the second faucet (be sure BOTH faucets are still on). Fill the gallon container at the second faucet and see how many seconds it takes.
4. Turn off both faucets. Now add the number of seconds it took to fill the container at both faucets.
5. A total of 35 seconds, or less, means the system flow rate is good.

FACTS AND FIGURES TO KEEP

Fill in the blanks below and keep this book in a safe place so you always have these facts.

Water Filter Model No. † _____

Serial Number † _____

Date Installed _____

† Get from the rating decal on the filter.

Iron Content _____ Parts Per Million

*pH _____ Taste And/Or Odor _____

Water Pressure _____ Pounds/Square Inch

Water Flow Rate _____ Gallons Per Minute

* The acidity or alkalinity measure of water.

SECTION 2 BEFORE YOU START TO INSTALL

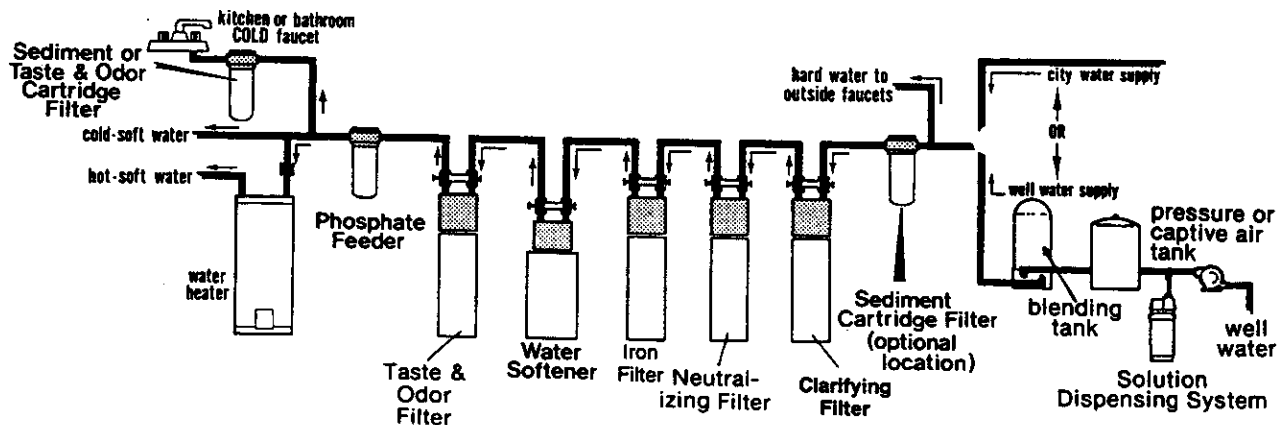
WHERE TO INSTALL THE FILTER

Think of the following points as you choose a place to put your filter (See FIG. 1).

- Place as close as possible to the pressure tank (well water) or water meter (city water).
- Place as close as possible to a water drain such as a floor drain, laundry tub, sump or standpipe.
- ▲ • Connect to the house main water pipe **BEFORE THE WATER HEATER**. Temperature of water going through the filter must not be more than 120°F (49°C).
- Locate the filter in the water system as shown in FIG. 1 below. For example, a taste and odor filter always follows a water softener, and the clarifying filter is installed ahead of other filters, and the water softener.
- ▲ • **DO NOT** install in a place where the filter could freeze. Freeze damage voids the warranty by Sears, Roebuck and Co. (See page 20).
- ▲ • Put the filter in a place water damage is least likely to occur if it develops a leak. Sears or the manufacturer will not repair or pay for water damage.
- ▲ • A 120V electric outlet, to plug the transformer into, is needed within 10 feet of the filter (the filter has a 10 foot power cable). Be sure the outlet and transformer are in an inside place, to protect from wet weather.
- ▲ • When installing in an outside location, you must take the steps necessary to assure the filter, installation plumbing, and wiring, are as well protected from the elements, contamination, vandalism, etc., as when installed indoors.
- ▲ • Keep the filter out of direct sunlight. The sun's heat can melt plastic parts.

FIG. 1 THE PROPER ORDER TO INSTALL WATER TREATING EQUIPMENT

(Shows sequence of equipment only – seldom, if ever, would all items be needed)



PLAN HOW TO INSTALL YOUR FILTER

You must first decide how to run in and out pipes to the filter. Look at your house main water pipe at the point you will connect the filter. Is the pipe soldered copper, glued plastic, or threaded galvanized or brass? What is the pipe size? What kind of pipe and fittings is it easiest for you to work with, and what tools do you have?

Now look at the common plans for in and out piping on page 8. Select the drawing best for you and use it as a guide to plan what materials you will need. As you plan your in and out piping, keep in mind the following check list. Then get all the materials you will need before you start.

SECTION 2

BEFORE YOU START TO INSTALL

TOOLS, PIPE, FITTINGS AND OTHER MATERIALS YOU WILL NEED

- ✓ In and out pipes to the filter must be at least 3/4 in. size. Some local codes may tell you to use no less than 1 in. pipe size.
- ✓ Use copper, brass, or galvanized pipe and fittings. Some codes may also allow CPVC plastic pipe.
- ✓ Copper and galvanized pipe corrode fast when connected together. Use pipe and fittings of the same material.
- ✓ You can buy adaptors to go from a copper or threaded main water pipe to CPVC in and out pipe.
- ✓ Sears has kits and bypass valves you can buy to help make installing your filter easier. See page 8.
- ✓ ALWAYS install a bypass valve or valves. Either use 3 shut-off valves, or 1 of Sears special valves. Bypass valves let you turn off water to the filter, but still have water in the house pipes.
- ✓ You will need a length of standard 5/8 in. inside diameter (I.D.) garden hose for the filter drain (see step 9, page 12). **DO NOT USE A SMALLER HOSE**

OR THE FILTER WILL NOT BACKWASH RIGHT. You can buy a 15 ft. hose from Sears, Item No. 42/65-3431.

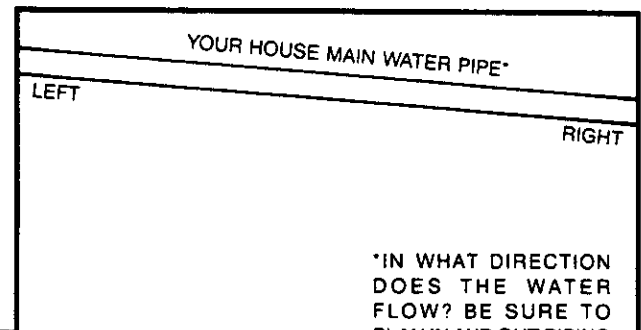
NOTE: Flexible hose is not allowed by some codes. If a rigid drain is required, buy an adaptor (garden hose thread on 1 end) and plumb in following codes.

- ✓ **TOOLS NEEDED** – Common and cross point (Phillips) screw drivers, slip-joint pliers and a tape measure or rule. ALSO . . .

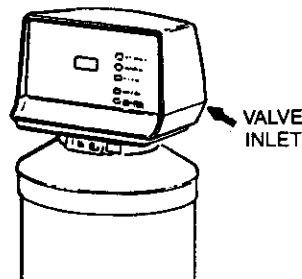
...for **SOLDERED COPPER** - tubing cutter, propane torch, lead-free solder and flux, emery cloth, sandpaper or steel wool.

...for **THREADED PIPE** - hacksaw or pipe cutter, pipe wrenches, pipe threading tool, pipe joint compound approved for use on potable water.

...for **CPVC PLASTIC** - hacksaw, adjustable wrench, solvent cement approved for use on potable water, primer.



DRAW THE PLANS FOR YOUR IN AND OUT PIPING HERE. BE SURE TO FOLLOW GUIDES LISTED ABOVE. INCLUDE ALL PIPE, FITTINGS AND ACCESSORIES YOU WILL USE. MAKE A LIST OF ALL MATERIALS YOU NEED AND BUY THEM BEFORE YOU BEGIN TO INSTALL THE FILTER.



SECTION 2 PLANS FOR IN AND OUT PIPES TO FILTER

FIG. 2 SOLDERED COPPER CONNECTION
($\frac{3}{4}$ IN. SHOWN)

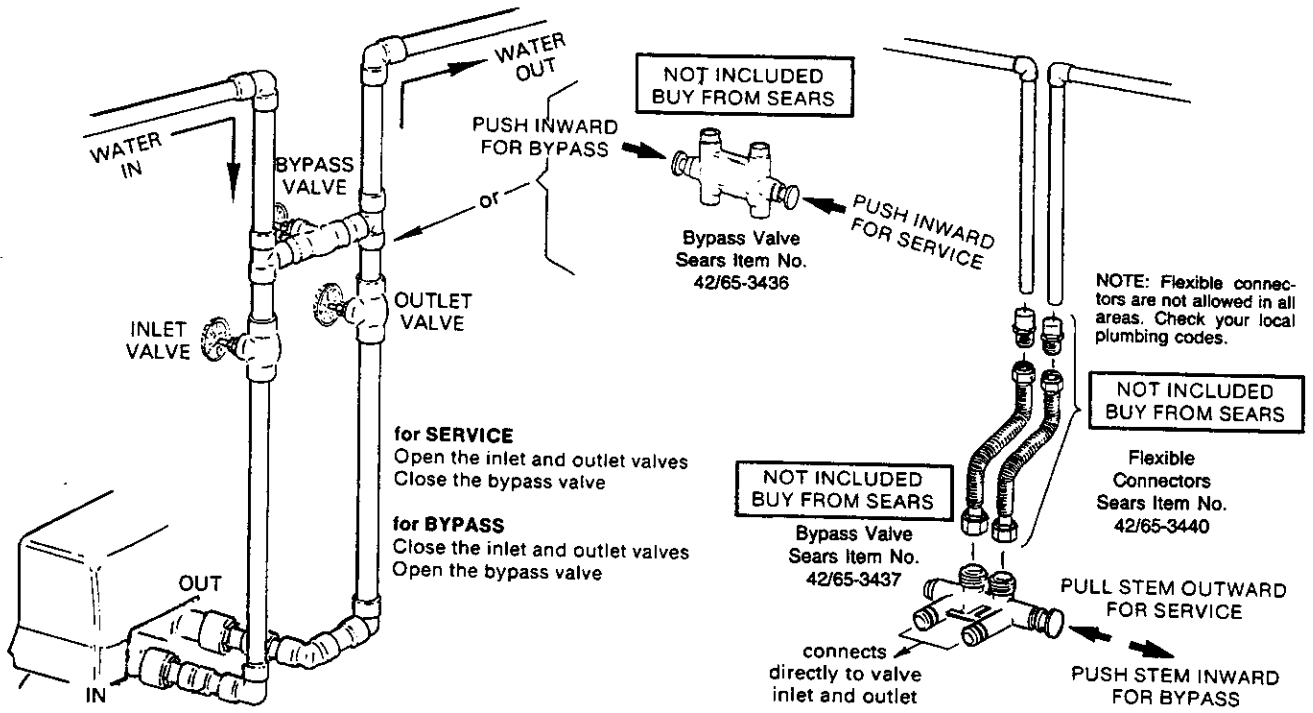
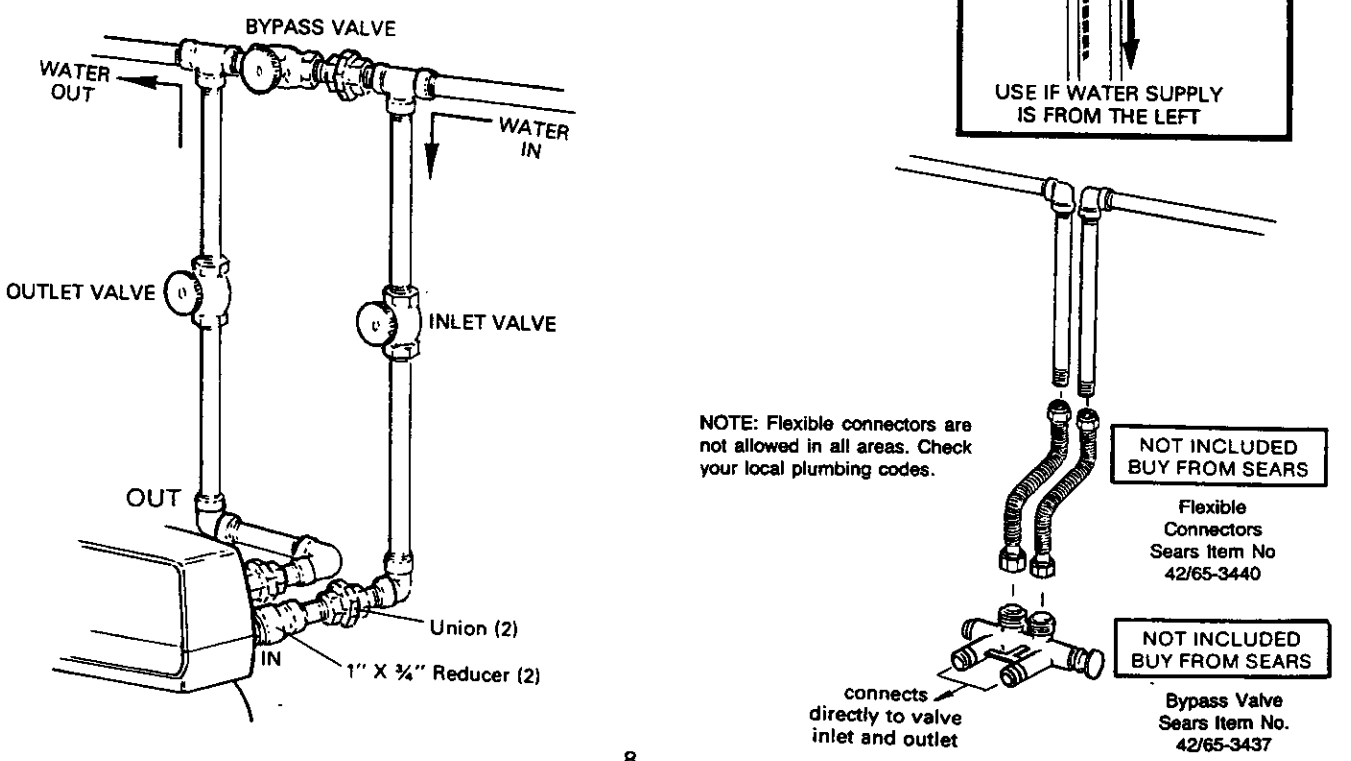
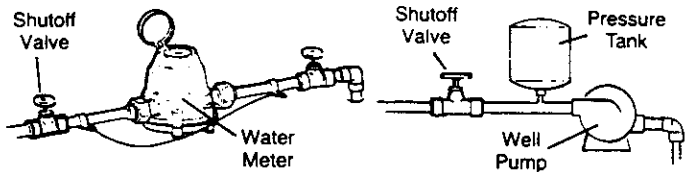


FIG. 3 THREADED PIPE CONNECTION
($\frac{3}{4}$ IN. SHOWN)

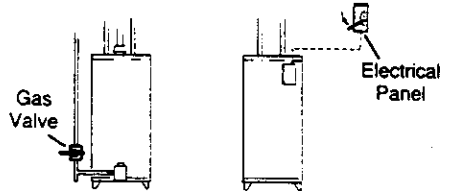


SECTION 3 STEP BY STEP GUIDES TO INSTALL

▲ 1. Close the shut-off valve on the house main water pipe, near the water meter or pressure tank, to turn off the water.



▲ 2. Shut off the gas or electric supply to the water heater.

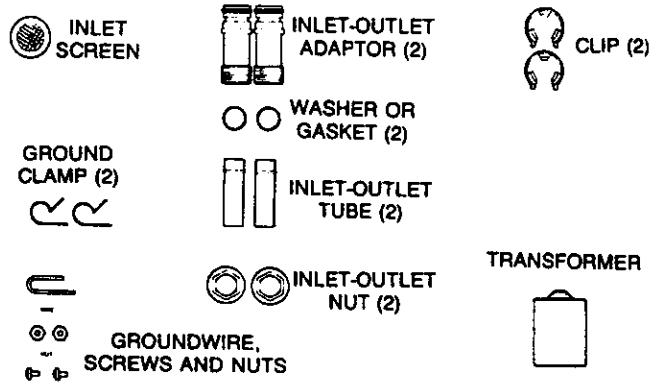


▲ 3. Open the highest and lowest water faucets in your house to let water drain from the pipes. Close faucets after water has drained.

4. Take all the small parts from the parts bag and lay out neatly where you can easily see and get to them as they are needed.

FIG. 4 SMALL PARTS BAG ITEMS

NOTE: The inlet screen is not used on the clarifying filter, and can be discarded.

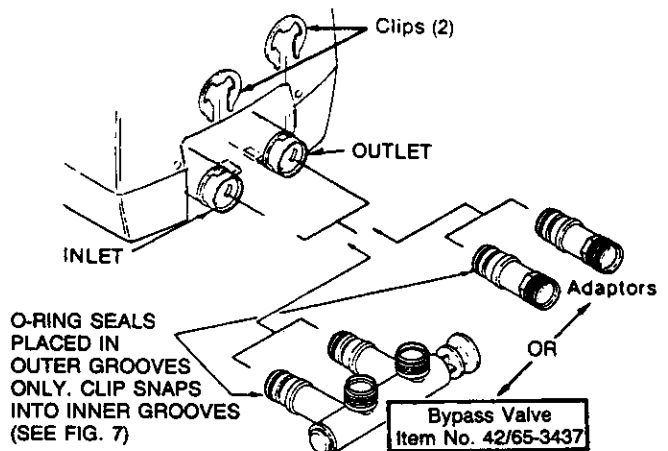


5. **INSTALL INLET AND OUTLET ADAPTORS OR SEARS BYPASS VALVE, ITEM NO. 42/65-3437.**

FIG. 5 INSTALLING INLET AND OUTLET ADAPTORS OR BYPASS VALVE

NOTE: If you will install the bypass valve, the adaptors are not used. If you do not install the bypass valve, you must use the adaptors.

a. **INLET AND OUTLET ADAPTORS** (Adaptors and clips are small parts bag items.) – Push the adaptors into the valve inlet and outlet ports (FIG. 5 and 7) as far as they will go. Both adaptors are the same and fit either valve port. **SNAP THE 2 LARGE HOLDING CLIPS INTO PLACE, FROM THE TOP DOWN AS SHOWN. BE SURE THEY SNAP FIRMLY INTO PLACE, SO THE ADAPTORS WILL NOT PULL OUT. . . GO TO STEP 6.**



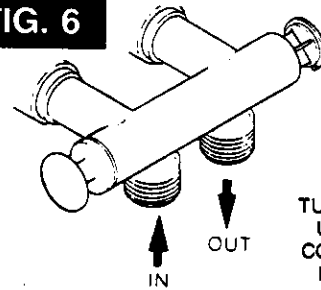
SECTION 3

STEP BY STEP GUIDES TO INSTALL

- b. **BYPASS VALVE ITEM NO. 42/65-3437** - If not already done, put a light coating of silicone grease or Vaseline on the bypass valve o-rings.

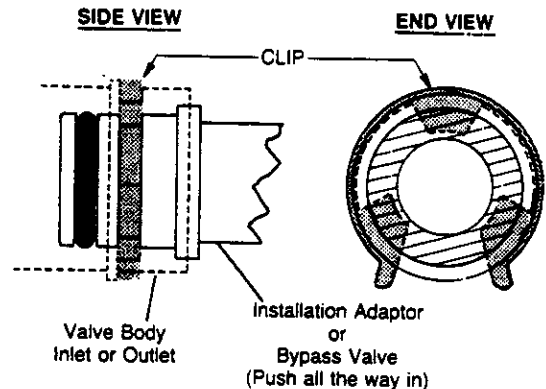
Push the bypass valve into the filter valve as far as it will go (FIG. 5, 6 and 7). **SNAP THE 2 LARGE HOLDING CLIPS INTO PLACE, FROM THE TOP DOWN AS SHOWN. BE SURE THEY SNAP FIRMLY IN PLACE, SO THE BYPASS VALVE WILL NOT PULL OUT. GO TO STEP 7.**

FIG. 6



TURN BYPASS VALVE UPSIDE DOWN TO CONNECT TO FLOOR LEVEL PLUMBING

FIG. 7



6. INSTALLING 3 VALVE BYPASS, OR SEARS BYPASS VALVE, ITEM NO. 42/65-3436, AND PIPES (FIG. 8).

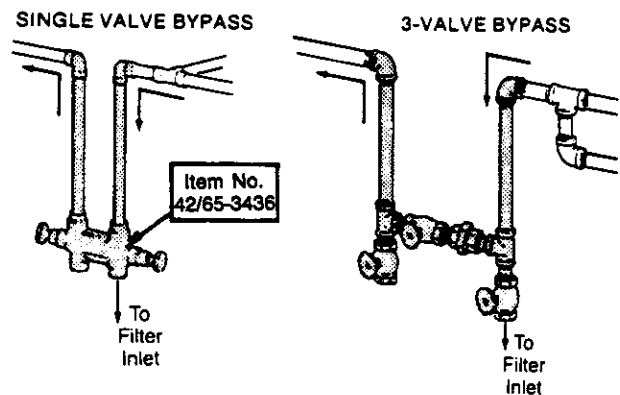
- a. Cut the house main water pipe where you will connect the filter. Loosely put together pipe, fittings, and the 3 valves or Sears special bypass valve. Place valve(s) within easy reach.

IMPORTANT: WHEN LOOKING AT THE FRONT OF THE FILTER, THE INLET IS ON THE RIGHT SIDE. IF WATER IN YOUR HOUSE MAIN WATER PIPE RUNS FROM LEFT TO RIGHT, BE SURE TO USE A "CROSS-OVER" AS SHOWN IN FIG. 2 AND 3, PAGE 8.

- b. If all pipe, fittings and valves fit together good, tighten all threaded joints (use pipe dope on outside threads), or solder all joints following the soldering tips on page 20.

FIG. 8

INSTALLING BYPASS VALVE ITEM NO. 42/65-3436, OR 3-VALVE BYPASS



SECTION 3

STEP BY STEP GUIDES TO INSTALL

- 7. CONNECT THE FILTER**
(Refer to your plan drawing on page 7, and to page 8.)

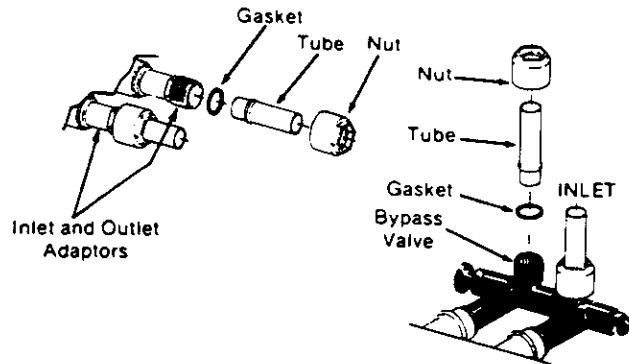
- SOLDER COPPER OR CPVC PIPE

- a.** Read the important note in step 6. Then put the gaskets, tubes and nuts shown in FIG. 9, or the flexible connectors* (Sears kit, page 8) onto the inlet-outlet adaptors or bypass valve.

NOTE: The nuts, tubes and gaskets are for 3/4 in. plumbing connection. For 1 in. connection, do not use the nuts, tubes and gaskets. From your local hardware store, buy 2 sweat adaptors (1 in. female thread x 1 in. sweat) and plumb directly to the installation adaptors or bypass valve. Threads on the installation adaptors and bypass valve are 1 in. pipe thread.

- b.** Measure, cut and put all pipe and fittings together up to the main water pipe, or to the bypass valve(s) you installed in step 6.
- c.** When all piping fits together good, solder (or solvent cement CPVC) all joints following tips on page 20.

FIG. 9 INLET-OUTLET FITTINGS



- ▲ CAUTION:** BEFORE SOLDERING, DISCONNECT NUTS (FIG. 9) AT THE ADAPTORS OR BYPASS VALVE. THIS WILL STOP THE HEAT, CAUSED BY THE SOLDERING, FROM GOING INTO THE FILTER VALVE AND MELTING PLASTIC PARTS. After plumbing cools, put nuts back on and tighten.

- THREADED PIPE

- a.** Read the important note in step 6. Then measure, cut, thread and put together pipe and fittings from the inlet-outlet adaptors (or bypass valve) up to the main water pipe, or to the bypass valves installed in step 6.

NOTE: For 1" connection, use a 1" fitting directly on the installation adaptors or bypass valve. Threads on the adaptors or bypass valve are 1 in. male pipe.

- b.** Include union fittings or flexible connectors* (Sears kit, page 8).

- c.** Cut pipe lengths exact for correct aligning, and to prevent stress on the filter valve. Use pipe dope or teflon tape on all outside threads.

CAUTION: BE VERY CAREFUL WHEN PUTTING PIPE FITTINGS ONTO THE PLASTIC THREADS OF THE INLET-OUTLET ADAPTORS, OR THE BYPASS VALVE. DO NOT CROSS-THREAD. DO NOT OVERTIGHTEN.

*Flexible connectors are not allowed in all areas. Check your local plumbing codes.

- 8.** Fasten or support all piping (use pipe hangers) to keep the weight of the plumbing off of the

filter inlet and outlet fittings, so they do not leak or break.

SECTION 3

STEP BY STEP GUIDES TO INSTALL

9. CONNECT A VALVE DRAIN HOSE

The valve drain fitting has standard garden hose threads. Connect a 5/8" I.D. **MINIMUM** size garden hose to it. Put the other end of the hose over the floor drain (FIG. 10), or into a laundry tub, sump, standpipe or other suitable drain. **CHECK YOUR LOCAL CODES.**

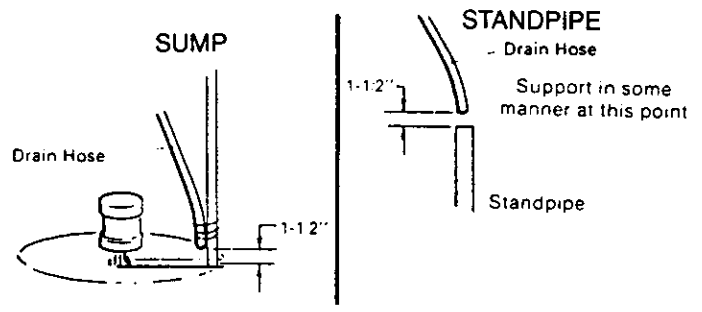
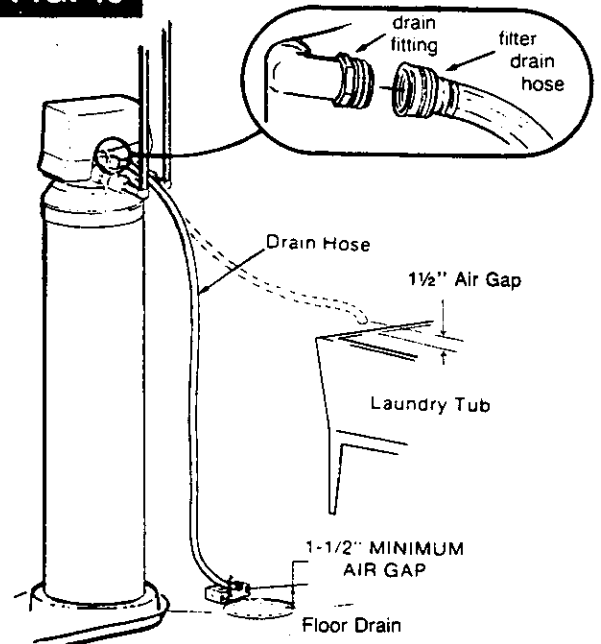
IMPORTANT NOTES:

Flexible drain hose is not allowed in all areas. SEE NOTE ON PAGE 7.

- ▲ Leave an air gap of about 1-1/2" between the end of the hose and the drain. This gap is needed so you don't get a back-flow of sewer water into the filter. **DO NOT** put the end of the hose down into the drain or connect without an air gap.
- ▲ Place or support the hose so it does not kink or have sharp bends. **FASTEN THE END OF THE HOSE TO A BRICK OR OTHER HEAVY OBJECT SO WATER PRESSURE WILL NOT MAKE IT "WHIP."**

Keep the hose lower than the drain fitting. (In some homes, to get to a drain you must raise the hose and run it over-head. If you need an over-head drain, do not raise the hose more than 8' above the floor or the filter will not work as it should.

FIG. 10



SECTION 3

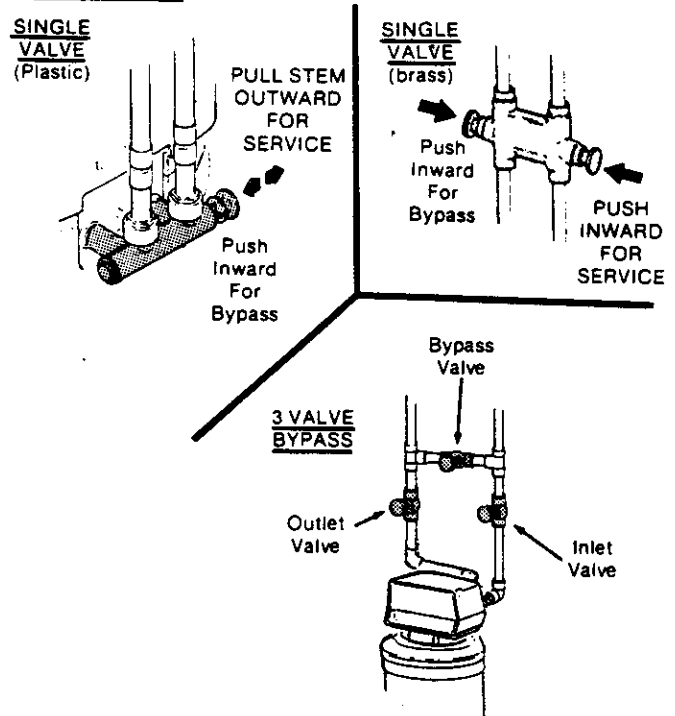
STEP BY STEP GUIDES TO INSTALL

10. TESTING YOUR PLUMBING WORK FOR WATER LEAKS.

Look at the picture in FIG. 11 showing your kind of bypass valve(s). On a single valve, slide the stem into SERVICE. On a 3-valve system, open the inlet and outlet valves and close the bypass valve.

- OPEN A HOT AND COLD WATER FAUCET TO LET AIR OUT OF THE FILTER AND HOUSE PIPES.
- Fully open the shut-off valve in the house main water pipe to turn on the water.
- After water from the faucets runs smooth with no more air bubbles, close them.
- Check your plumbing work for leaks and fix right away if any are found. READ THE CAUTION NOTE AFTER STEP 7C (SOLDERED COPPER OR CPVC PIPE), PAGE 11.

FIG. 11 BYPASS VALVES



11. INSTALL GROUNDING WIRE BETWEEN THE FILTER IN AND OUT PIPES

The house cold water pipe (iron or copper) is often used to ground all electric outlets in the home. Outlets are grounded to protect you from shock when you touch any electric appliance plugged into the outlet. If you didn't install a 3-valve bypass, or a brass single bypass valve (FIG. 11), the cold water pipe ground is broken.

- ▲ To restore the ground, take the clamps (2), screws (2), nuts (2) and ground wire that were in the small parts bag. Install across the iron or copper in and out pipes as shown in FIG. 12. Be sure good contact is made between the pipe and the clamps. Fasten the ground wire tightly between the clamps.

IMPORTANT: Be sure the cold water pipe has direct metal to metal contact all the way to the ground. Plastic, rubber or other electrically insulating parts such as hoses, fittings, washers or gaskets can break the direct metal to metal contact. Also check the water meter (city water) or the well pump. Install #4 copper jumper wires, clamped tightly on both ends, across insulated parts (FIG. 13).

FIG. 12 COLD WATER PIPE GROUND

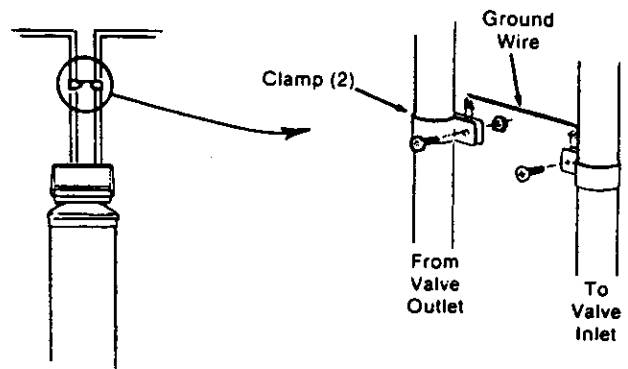
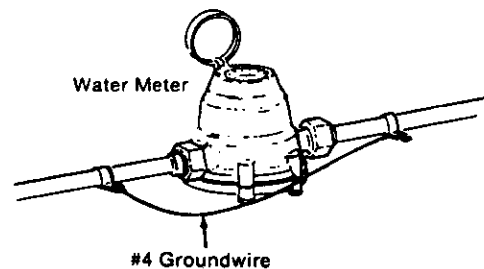


FIG. 13 WATER METER JUMPER WIRE



SECTION 3

STEP BY STEP GUIDES TO INSTALL

12. ELECTRIC POWER OUTLET FOR YOUR FILTER

The filter works on 24 volt, 60 Hz electric power. The included transformer changes standard 120 volt AC

house power to 24 volts. You must plug the transformer into a 120 volt outlet only. Be sure the outlet is always "live" so someone cannot turn it off by mistake.

13. FASTEN THE POWER CABLE AND PLUG IN THE TRANSFORMER

Looking at FIG. 14, fasten the 2 power cable lugs (1 under each screw) to the transformer as shown. Tighten both screws, then plug the transformer into the outlet.

NOTE: When you plug in the transformer, 12:00 AM and SU begin to flash in the face plate display.

14. SANITIZING THE WATER FILTER

Care is taken at the factory to keep your filter clean and sanitary. Materials used to make the filter will not infect or contaminate your water supply, and will not cause bacteria to form and grow. However, if sanitizing is needed, do the following.

- a. Press and hold button **5** on the face plate until RCHG begins to flash in the face plate display, starting a backwash.

After 5 to 10 minutes, press button **5** again to start fast

rinse. Wait about 1 minute, THEN TURN OFF WATER TO THE FILTER AT THE MAIN SUPPLY VALVE. Press button **5** once more to return the valve to service.

AM
RCHG 12:00
SU

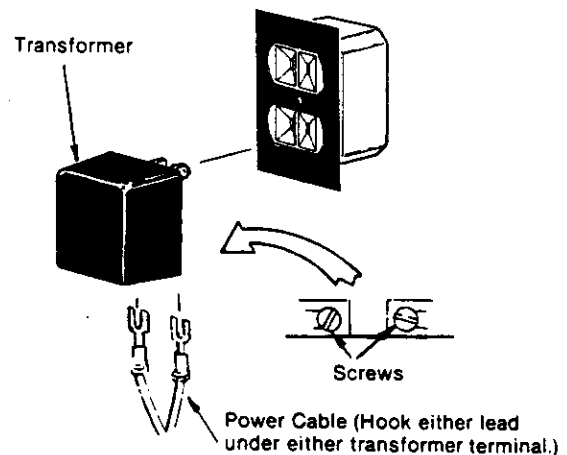
- b. Carefully remove the large plastic clip at the filter valve inlet (FIG. 7, page 10) and pull the adaptor out.

NOTE: If bypass valve, Item No. 42/65-3437 is installed, or if plumbing is too rigid to move, also disconnect the outlet side and move the filter away from plumbing.

- c. Put 1 teaspoon (0.1 ounce) of calcium hypochlorite into the valve inlet as far as possible.

NOTE: You can buy calcium hypochlorite in tablet or granular form using trade names such as Perchloron and HTH.

FIG. 14 CONNECTING TRANSFORMER



- d. Carefully reconnect the plumbing.
- e. Turn on the water supply.
- f. Open the nearest filtered water faucet until you can smell chlorine, then close the faucet. DO NOT USE WATER FOR ABOUT 45 MINUTES.
- g. After the 45 minutes, see step a to start a backwash. The filter will complete this backwash in about 35 minutes.

While the filter is backwashing, do step 15. Then make the timer settings beginning on page 15.

- h. When the backwash is over, open filtered water faucets until chlorine odor is gone, then close.

15. TURN ON THE GAS (OR ELECTRIC) SUPPLY TO THE WATER HEATER AND LIGHT THE PILOT.

SECTION 4

WATER FILTER TIMER/RECHARGE SETUP

1. SET THE TIMER

After the transformer is plugged into the electrical outlet (step 13, page 14), 12:00 AM SUn day began to flash in the time display. Set the **time of day**, **present day of week**, **days** and/or **time of recharge**.

A. SET TIME OF DAY

1. Press the PRESENT TIME AND DAY button [1] once. The hour display flashes.
2. Press the SET/CLEAR button [4] until the present hour of the day shows in the display. Be sure AM for morning hours, or PM for afternoon and evening hours shows.

NOTE: Press button [4] and quickly release to move the hour display ahead 1 at a time to the correct hour. Or, hold button [4] to move the display ahead 2 hours each second, to the correct hour.

B. SET PRESENT DAY OF WEEK

1. Press the SET/CLEAR button [4] to set the present day of the week in the display.

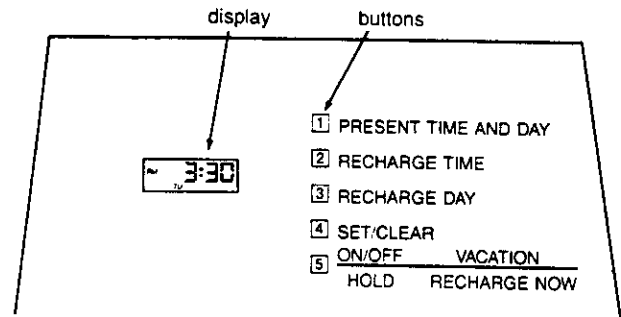
NOTE: Press button [4] and quickly release to move the day display 1 at a time. Or, hold button [4] to move

C. SET DAYS OF RECHARGE (BACKWASH)-

NOTE, IF YOU HAVE A WATER SOFTENER OR OTHER AUTOMATIC FILTER: A good water flow rate is needed for proper recharging and/or backwashing of all water conditioners. To help assure good water flow, you should offset the timers on each conditioner so recharges do not occur on the same days, or at the same time.

- ...Most Sears water softeners are factory set (many are adjustable) to recharge from 2:00 to 4:00 AM.
- ...Set the clarifying filter to recharge on different days, or...
- ...Set the clarifying filter to recharge either 2 hours before or after other equipment, or...
- ...Offset the timers on all equipment to begin recharging at 12:00, 2:00 and 4:00 AM, or 1:00, 3:00 and 5:00 AM, etc.

FIG. 15



3. Press button [1] once to steady the hour display, and minutes begin to flash. Repeat step 2 to set the correct minutes.
4. Press button [1] again to steady the minute display (day will begin flashing). Figure 15 shows the timer set at 3:30 PM.

the day display ahead 2 days each second.

2. Press button [1] again to steady the entire display. Figure 15 shows the timer set at TUESday.

1. Read, "HOW OFTEN SHOULD YOU RECHARGE (BACKWASH) THE FILTER", page 16.

NOTE: The timer is factory programmed to recharge on Monday, Wednesday and Saturday.

2. Press the RECHARGE DAY button [3] and SUn day begins to flash.

...If you want recharges on Sunday (from table), press the SET/CLEAR button [4] to display ON.

...If you do not want Sunday recharges, press button [4] to display OFF.

3. Press button [3] again to display a flashing MOn day. As you did in step 2 above, press button [4] to display ON for recharge on Monday, or OFF for no recharge on Monday.

continued

SECTION 4

WATER FILTER TIMER/RECHARGE SETUP

- Press button [3] for every day of the week, each time using button [4] to display ON (for recharge) or OFF (no recharge) as needed.
- After setting ON or OFF for Saturday, press button [1] to return the present time in the display.

D. SET TIME OF RECHARGE (BACKWASH)

The filter is factory set to begin recharge at 2:00 AM, ending at about 2:40 AM. If a different recharge time is desired, or needed (see note under step C, page 15) do the following.

- Press the RECHARGE TIME button [2] once, to display a flashing 2:00 AM, the factory setting.

- Press the SET/CLEAR button [4] until the desired recharge starting time shows in the display.

NOTE: Press button [4] and quickly release to move the display ahead 1 hour at a time. Or, hold button [4] to move the display ahead 2 hours each second.

- Press button [1] to return the present time.

HOW OFTEN SHOULD YOU RECHARGE (BACKWASH) THE FILTER?

The clarifier needs backwashing when you can see sediments in the water, or when faucet water pressure drops. When that happens depends on how much sediment is in the water supply, and how much water your household uses. You can use the following table as a guide.

RECHARGE (BACKWASH) GUIDE

WATER CONDITION	RECHARGES PER WEEK
normal sediments, dirt, etc.	1
normal sediments, dirt, etc., WITH iron	2-3
high sediments, dirt, etc.	2
high sediments, dirt, etc., WITH iron	3-4

NOTE: The timer is factory programmed for Monday, Wednesday and Saturday recharge.

SECTION 5

TIMER FEATURES

VACATION

The day you leave on vacation or other long absence, press (DO NOT HOLD) the VACATION ON/OFF button [5]. VAC begins to flash in the display. The timer will keep time but the filter will not recharge and waste water.

When you return, press the VACATION button [5] again to return the filter to service, and the correct time of day in the display. **Remember to do this or**

the filter will not recharge and you will soon have sediments in your water supply.

NOTE: While in VACATION, the filter will go through a recharge if the RECHARGE NOW feature (See below) is used.

NOTE: To shut off the water supply to the filter, use the plumbing bypass valve(s). . . FIG. 11, page 13.

RECHARGE NOW

For times you expect to use more water than usual, use the RECHARGE NOW feature. Press the RECHARGE NOW-HOLD button [5] and hold in for 3

seconds. RCHG begins to flash in the display and a recharge starts right away. You will have filtered water when the recharge is over in about 35 minutes.

SECTION 5 | TIMER FEATURES/HOW THE FILTER WORKS

TIMER "POWER-OUTAGE MEMORY"

If electrical power to the timer goes off, the "memory" built into timer circuitry keeps all settings for 6 hours (minimum) or more. The display is blank and the filter will not recharge. When electrical power comes on, 1 of 2 things will happen.

1. The present time of day will show, meaning the timer memory has kept all settings.
- NOTE: If the filter was in a recharge when power was lost, it will now finish the cycle.

2. The display will show a time, but it will be flashing. The timer memory did not keep the time settings and they must be reset (page 15).
- The flashing display is to remind you to reset the timer.
- NOTES:**
- When power comes on, the flashing display returns to a time of 12:00 AM Sunday, then begins to keep time again. If you do not reset all time settings, the filter will recharge 3 days each week. However, recharges will most likely be on the wrong days and at the wrong time.
- If the filter was in a recharge when power went off, the valve will return to service position without finishing the recharge cycle.

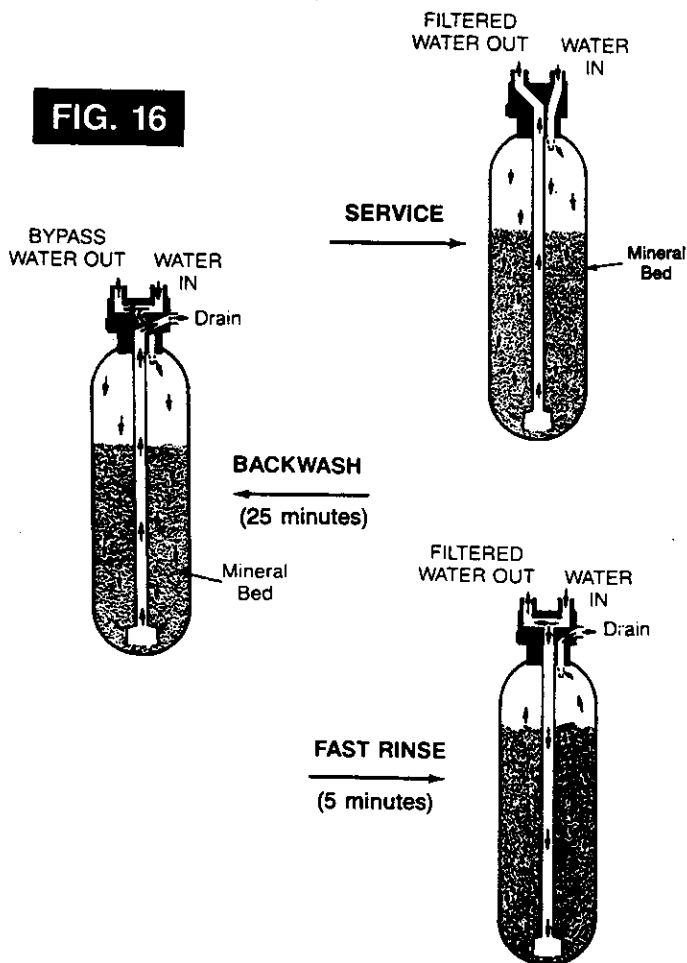
HOW YOUR CLARIFYING FILTER WORKS

The clarifying filter is filled with a mineral called "filter aggregate." This mineral looks something like coarse sand. During service (FIG. 16) water goes into the filter and DOWN through the bed of mineral. The mineral takes the dirt, sand, silt, clay and other sediments out of the water and holds it in the bed. Clear, clean water goes out of the filter and into the house pipes.

RECHARGE

BACKWASH - After a time, the mineral needs cleaning to flush out all the sediments held by the mineral. This cleaning is called backwash. In backwash, water flows UP through the mineral. The dirt and other sediments flush out of the mineral, out the top of the filter, and to the drain. Backwash is about 25 minutes long.

FAST RINSE - After backwash, the water flow changes direction and goes downward through the filter at a fast rate. Dirt and other sediments, left at the bottom of the mineral bed, are flushed to the drain. The fast rinse is about 5 minutes long. Then, the filter returns to service.



SECTION 6

CARE OF YOUR FILTER

BEFORE YOU CALL FOR SERVICE

HELPFUL HINTS CHECKLIST. . .TO HELP YOU SAVE MONEY

By making a few easy checks, you can often avoid an unneeded service call. If your water filter fails to work, check these things. If, after making the checks it still does not work right, call your Sears Service Department.

FILTER WILL NOT BACKWASH

(Water contains sediments, iron, dirt, sand, etc.)

- 1** **MANUAL BYPASS VALVE(S) IN BYPASS POSITION** - See FIG. 11, page 13. Move stem in single bypass valve to **SERVICE**. In a 3-valve bypass, open the inlet and outlet valves, close the bypass valve.
- 2** **TRANSFORMER UNPLUGGED AT THE WALL OUTLET, OR POWER CABLE DISCONNECTED** - Check for loss of power and correct. Reset the times, then use the **RECHARGE NOW** feature (See page 16).
- 3** **FUSE BLOWN, CIRCUIT BREAKER POPPED, OR CIRCUIT SWITCHED OFF** - Replace fuse, reset circuit breaker, or switch circuit on. Reset times and use the **RECHARGE NOW** feature.
NOTE: SEE "TIMER POWER-OUTAGE MEMORY," PAGE 17.
- 4** **TIMER IN THE VACATION (VAC) POSITION** - Press the **VACATION** button once to return the filter to service (page 16).
- 5** **TIMER NOT PROGRAMMED FOR RECHARGES** - See pages 15 and 16 to select and program a schedule. Use the **RECHARGE NOW** feature.
- 6** **VALVE DRAIN HOSE PLUGGED** - Hose must not have kinks, sharp bends, or any water flow blockage. (See page 12.)

HOUSE WATER PRESSURE LOW

- a** **WELL PUMP PRESSURE SET TOO LOW** - Adjust to a **MINIMUM** of 20 psi.
- b** **BACKWASH NEEDED MORE OFTEN TO KEEP FILTER MINERAL BED CLEAN** - Set the timer for more recharges (See pages 15 and 16).

SECTION 6 CARE OF YOUR FILTER

KEEP THE FILTER FROM FREEZING

If the filter is installed where it could freeze (summer cabin, lake home, etc.), you must drain all water from it to stop possible freeze damage. To drain the filter -

1. Close the shut-off valve on the house main water pipe, near the water meter or pressure tank.
2. Open a faucet in the filtered water pipes to vent pressure in the filter.
3. Looking at FIG. 11 on page 13, move the stem in a single bypass valve to bypass. Close the inlet and outlet valve in a 3-valve bypass system, and open the bypass valve.
4. Unplug the transformer at the wall outlet.
5. Pull the holding clip to remove the drain fitting, with drain hose attached, from the valve.
6. Looking at FIG. 5 on page 9, remove the plastic clips and pull the adaptors or bypass valve from the inlet and outlet.
7. Move the filter close to the floor drain. SLOWLY and CAREFULLY (the filter is heavy) tip the filter over so the valve inlet and outlet are over the drain. Allow water to drain from tank. DO NOT REST THE FILTER ON THE INLET AND OUTLET FITTINGS OR THEY WILL BREAK.
8. Tip the bottom of the filter up a few inches and hold until all water has drained. Leave the filter laying like this until you are ready to use it. Plug the inlet and outlet with rags to keep dirt, bugs, etc. out.

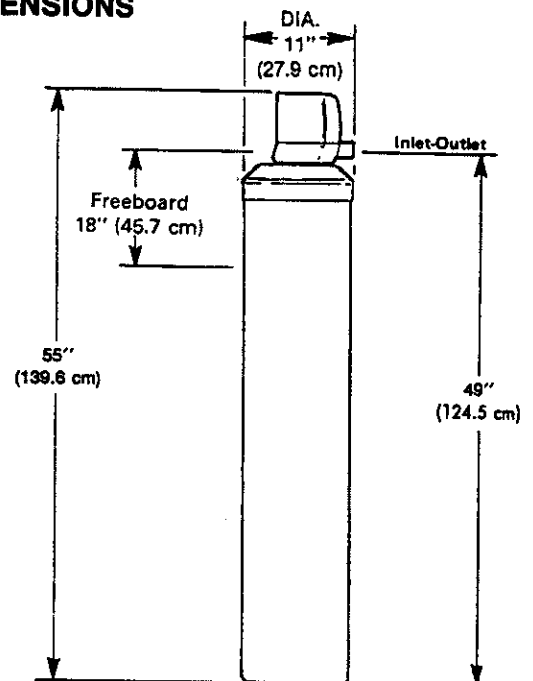
SECTION 7 OTHER THINGS TO KNOW

SPECIFICATIONS

TYPE OF FILTERING MINERAL	Aggregate
AMOUNT OF FILTERING MINERAL	1.0 Cu. Ft. (.028 Cu M)
WATER PRESS. LIMITS (Min.-Max.)	20 to 125 PSI (1.4 to 8.4 Kg/Sq/Cm)
MAXIMUM WATER TEMPERATURE	120 F (48.9 C)
MINIMUM WELL PUMP CAPACITY	270 Gal/Hr (1022 Liter/Hr)
MIN. PIPE SIZE TO FILTER	3/4 In. (19MM)
BACKWASH FLOW RATE*	4.5 Gal/Min (17 Liter/Min)
SERVICE FLOW RATE (at max. pressure drop of 10 psi)	6.6 Gal/Min (25 Liter/Min)
CAPACITY	8600 Gal (32553 Liters)
MICRON RATING	25

*at 35 PSI inlet pressure

DIMENSIONS

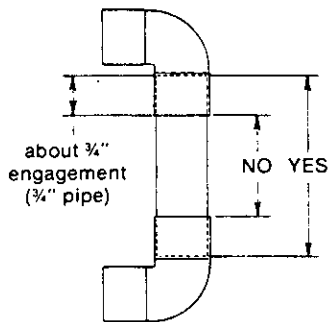


CAPACITY DETERMINED UNDER WQA STANDARD S-200 TEST CONDITIONS FOR FILTER GROUP IV, AND MAY VARY WITH LOCAL WATER CHARACTERISTICS.

SECTION 7 OTHER THINGS TO KNOW

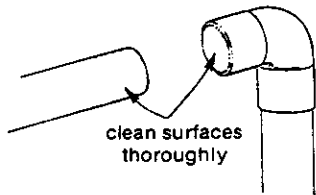
SWEAT SOLDERING TIPS

MEASURING PIPE LENGTHS: Always be sure to include the length of pipe that goes inside the fitting. On $\frac{3}{4}$ " pipe, this length is about $\frac{3}{4}$ ".



CUTTING PIPE: Turn the pipe cutter back and forth around the outside of the pipe. Tighten the pipe cutter slowly with each turn until all the way through the pipe. To keep from crushing or distorting the pipe, do not tighten the cutter too much at a time. File burrs from cut ends.

CLEAN PIPE AND FITTING SOLDERING SURFACES: With emery cloth, fine sandpaper or steel wool, clean the end of the pipe and inside of the fitting. Clean surfaces until they shine. Do not grind off too much material, making the fit too loose.



CHECK THE FIT: Push the pipe into the fitting as far as it will go. Use some force to slip together, but do not hammer or pound. If too tight, clean surfaces until fit is good.

PUT ON PASTE FLUX: Freely apply paste flux on both cleaned surfaces. Place pipe into the fitting and turn to spread the paste around.

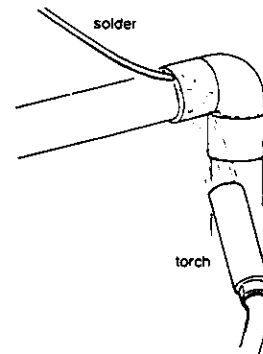
BEFORE SOLDERING, READ THESE SAFETY GUIDES.

- ▲ Keep torch flame away from walls, the water softener, and other materials that will burn.
- ▲ Do not touch newly soldered pipe with your hands.

Wrap nearby, already soldered joints with a wet cloth so solder does not melt.

Let soldered joints cool slowly. Sudden cooling can crack or weaken the solder.

SOLDERING: Light the torch and set to a moderate flame. Move the flame over and around the joint to heat pipe and fitting. In a short time, touch the end of the solder wire to the lip of the fitting. **DO NOT PLACE SOLDER IN THE FLAME.** The solder will melt and draw into the connection when the pipe and fitting are at the right temperature. Run the solder around the lip until the joint is full. Do not overfill as solder will run into and harden inside the fitting. Being careful not to touch the pipe with your hands, make a quick swipe around the joint with a cloth to take off excess solder.

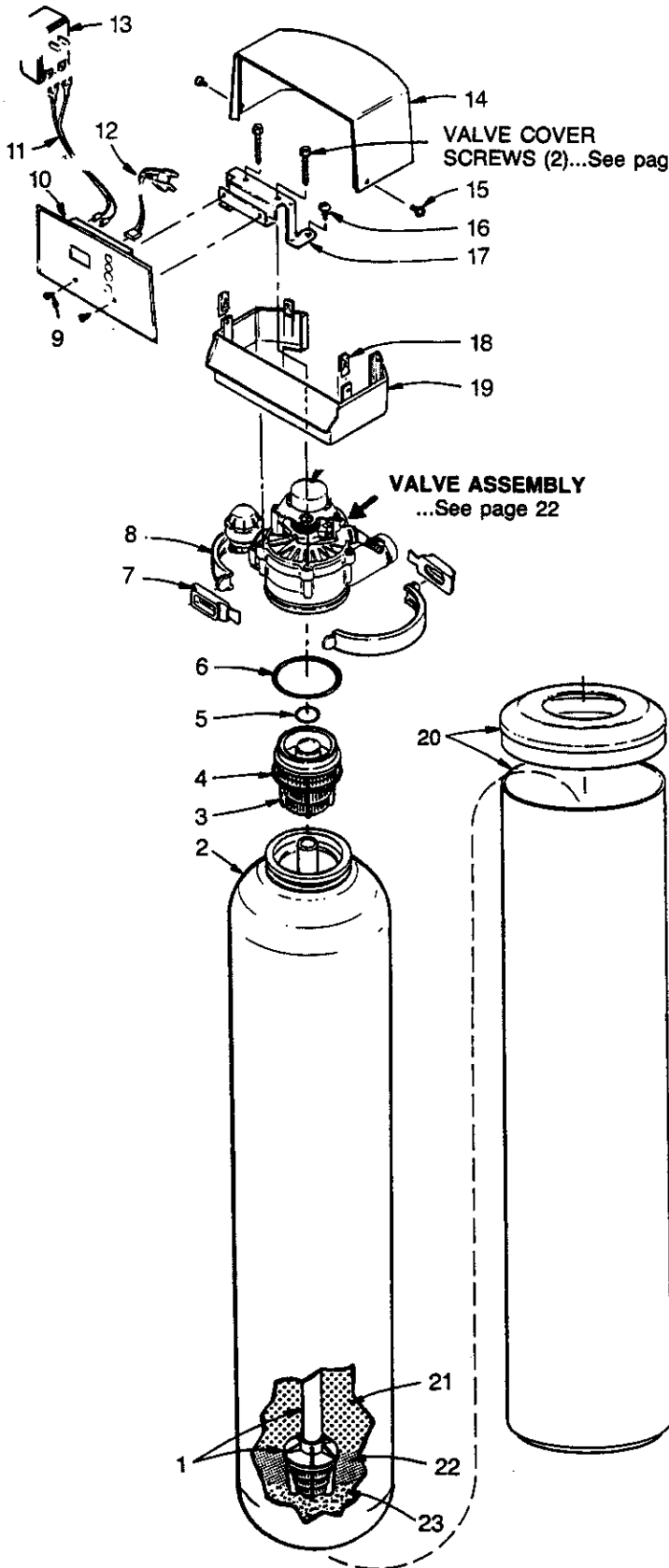


For a good sweat solder joint, the pipe and fitting must not have any water inside them. Water, when heated by the torch, weakens the solder and often the joint will leak. If you can not keep the inside of the pipe dry, wad up a piece of bread into a ball. After putting paste flux on both the pipe and fitting, place the bread wad into the pipe and poke in several inches. Put the pipe and fitting together and solder. The bread absorbs moisture while you are soldering. When the water is turned on, the bread dissolves and is flushed out an open faucet.

LEAKING CONNECTIONS: You can try to reheat and resolder a leaking joint, but it's usually best to start over. Turn off the water, reheat and take the pipe and fitting apart. Take off all old solder, cleaning down to the copper surface. Apply new paste flux and solder again.

SECTION 8

REPAIR PARTS... SEARS WATER FILTER



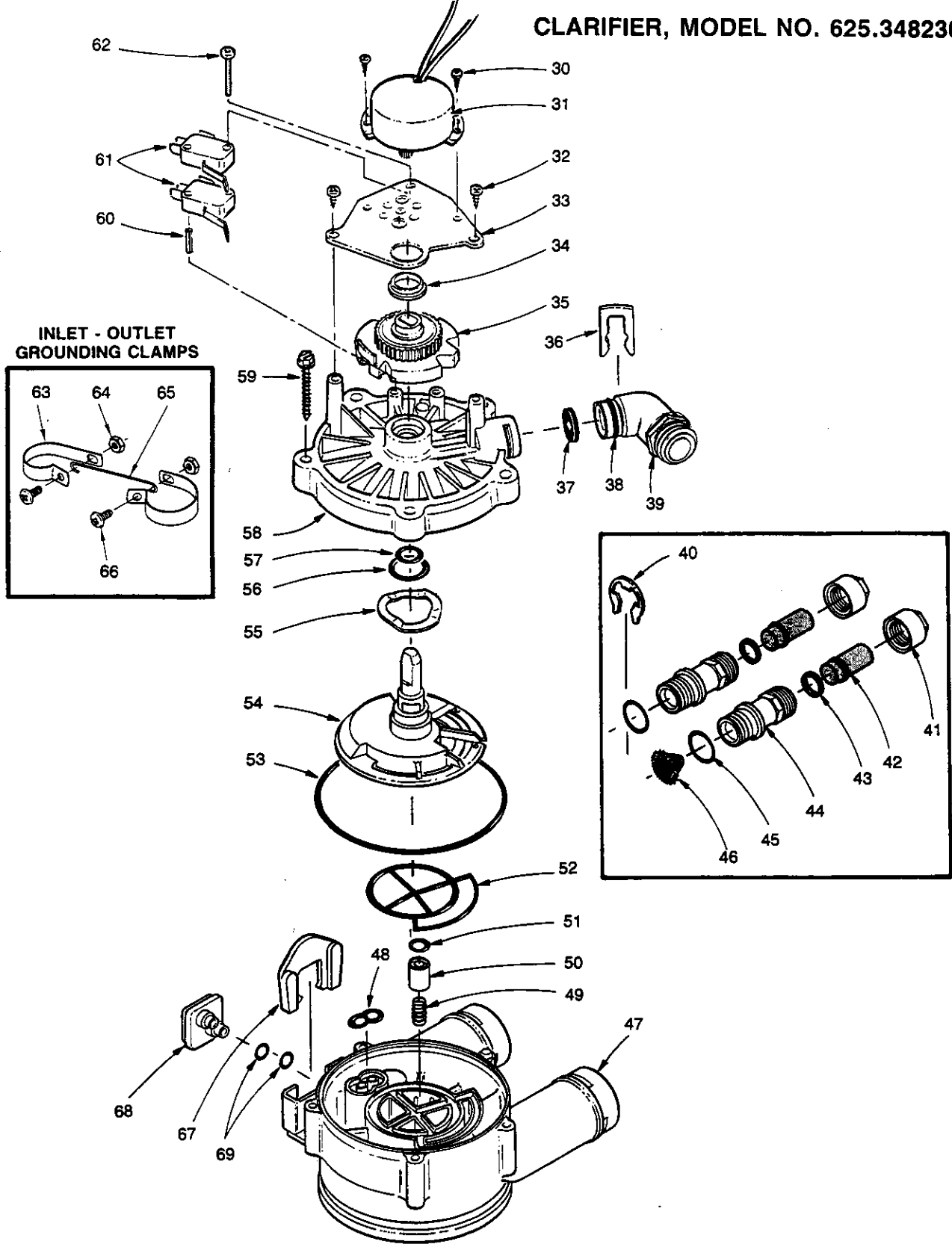
CLARIFIER, MODEL NO. 625.348230

KEY NO.	PART NUMBER	DESCRIPTION
1	7105047	Bottom Distributor & Standpipe
2	7092202	Mineral Tank
3	7088855	Top Distributor
4	7096183	O-Ring, 2-3/4 x 3
5	900039	O-Ring, 1-1/16 x 1-1/14
6	7079092	O-Ring, 2-7/8 x 3-1/4
7	7088033	Clamp Retainer (2 req.)
8	7088041	Clamp Section (2 req.)
9	900300	Screw, #4-40 x 1/4 (2 req.)
10	7108304	Face Plate - Timer
11	7084330	Power Cord
12	7084306	Wire Harness
13	7095373	Transformer, 24V-10VA
14	7090323	Top Cover
15	900562	Screw, #6 x 9/16 (4 req.)
16	9006031	Screw, #8-18 x 1/2 (2 req.)
17	7089047	Cover Bracket
18	900596	Speed Nut
19	7090315	Bottom Cover
20	7092210	Shroud
21	505647	Mineral, 1 cu. ft.
22	501783	Filter Sand, 10 lbs.
23	501782	Gravel, 17 lbs.
◆	7097684	Instruction Card
◆	7097668	Owners Manual (F642-2890)

◆ Not illustrated

SECTION 8 REPAIR PARTS . . SEARS WATER FILTER

CLARIFIER, MODEL NO. 625.348230



SECTION 8 REPAIR PARTS. . . SEARS WATER FILTER

CLARIFIER, MODEL NO. 625.348230

VALVE ASSEMBLY PARTS LIST

KEY NO.	PART NUMBER	DESCRIPTION
30	900120	Screw, #6-18 x 3/8 (2 req.)
31	7070462	Motor
32	900857	Screw, #6-20 x 3/8 (2 req.)
33	7064974	Motor Plate
34	503288	Bearing
35	7066439	Cam and Gear
36	7080653	Clip (Drain)
37	509537	Flow Plug
38	900041	O-Ring, 5/8 x 13/16
39	7077927	Drain Hose Adaptor
40	1205500	Clip (2 req.) •
41	507369	Installation Nut (2 req.) •
42	507615	Installation Tube (2 req.)•
43	900570	Washer (2 req.)•
44	507371	Installation Adaptor (2 req.)•
45	900535	O-Ring, 15/16 x 1-3/16 (2 req.)•
46	900568	Screen (inlet)• 1
47	7082053	Valve Body
48	7081764	Seal
49	1219600	Spring
50	7092642	Plug (Drain Seal)
51	7092634	O-Ring, 3/8 x 9/16
52	7081756	Rotor Seal
53	9001006	O-Ring, 3-3/8 x 3-5/8
54	7103964	Rotor & Disc

KEY NO.	PART NUMBER	DESCRIPTION
55	7082087	Wave Washer
56	7064372	O-Ring, 3/4 x 15/16
57	7064380	O-Ring, 7/16 x 5/8
58	7085263	Valve Cover
59	7074123	Screw, #10-14 x 2 (5 req.)
60	7077472	Expansion Pin
61	7030713	Switch (2 req.)
62	7070412	Screw, #4-24 x 1-1/8
63	900373	"C" Clamp (2 req.)•
64	120375	Nut (2 req.)•
65	500726	Ground Wire•
66	160505	Screw, 1/4-20 (2 req.)•
67	7081201	Clip (Nozzle & Venturi)
68	7100940	Plug
69	900064	O-Ring, 1/4 x 3/8 (2 req.)
◆	4920901	Small Parts Bag (Includes all items marked with •)
◆	7092163	Seal Kit (Incl. Key Nos. 48, 51, 52, 53, 56 and 57)

◆ Not illustrated

1 Although included in the small parts bag, screen is not used on the Clarifying Filter.

SEARS

**OWNERS
MANUAL**

Service

**MODEL NO.
625.348230**

**SEE US TO ORDER
REPAIR PARTS**

**TELL SEARS YOU
WANT IT INSTALLED
THEN RELAX**

Kenmore

CLARIFYING FILTER

Now that you have purchased your clarifying filter, should a need ever exist for repair parts or service, simply contact any Sears Service Center. Be sure to provide all pertinent facts when you call or visit.

The model number of your filter is found on the rating decal. This decal is on backside of the filter top cover.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

- PART NUMBER
- MODEL NUMBER
- PART DESCRIPTION
- NAME OF ITEM

All parts listed may be ordered from any Sears Service Center.

If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution center for handling.

When Sears arranges the installation, you can be sure the job is done right. We will arrange for professional workmanship. . .and we'll take care of the entire project. What's more, during installation you get insured protection. . . against property damage and also against accidents to workmen. All you have to do is talk to your Sears salesperson or call your nearest Sears store today for detailed information.

Sears, Roebuck and Co., Chicago, IL 60684 U.S.A.