INSTALLATION, OPERATING AND SERVICE MANUAL

FOR NEUTRALIZERS AND FILTERS WITH NO. 1500M MANUAL TOP MOUNT VALVE

LANCASTER WATER TREATMENT

PACKAGING:

All filters are shipped from the factory in cartons, complete with fiberglass mineral tank, main valve, mineral, and gravel.

INSTALLATION:

Remove valve and add gravel and mineral. Allow 12″ free board between mineral and top of tank. *Do not overfill.*

Facing the unit, the inlet is the ¾″ opening (Marked "IN") on the rear of the valve. The outlet is the ¾″ opening (Marked "OUT") on the top. The ½″ opening is the drain line.

If possible, the drain pipe should slope down and run into an open floor drain or laundry tub. If it is necessary to run the drain pipe overhead (not to exceed 5 ft.), be sure to increase the pipe size to follow all plumbing procedures to hold friction and restriction to a minimum.

Manually index the filter control into the service position and let the water flow into the mineral tank. When the water flow stops, open a water tap until all air is released from the lines, then close the tap.

NOTE: The various positions may be selected by positioning the lever on the front of the control until the indicator shows the filter is in the desired position.

Manually index the control to the backwash position and allow water to flow at the drain for 3 to 4 minutes. Manually index the control to rapid rinse, then to the service position.

PROGRAMING INSTRUCTIONS:

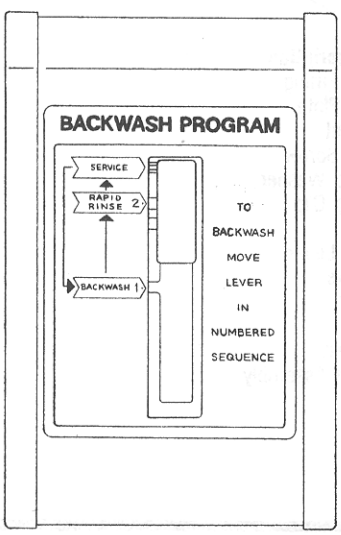
Backwash frequency will vary with the amount of dirt or sediment in the water. Iron or sediment filters should be backwashed at least once a week, more often if pressure drop occurs. If water is clean, a neutralizer requires backwash only to remove fine material that results from the calcite dissolving. Carbon filters require backwash only if pressure drop occurs. All units should be backwashed on installation until dust clears at the drain.

Valve Positions

Service—Filtered water to household
Backwash—Reverse flow of water to clean out mineral bed. Time required: 10–15 min.
Rapid Rinse—Down flow purge to flush dirty water out of mineral. Time required: 10–15 min.

COLOR, TASTE AND ODOR FILTERS

Used for removal of sulphur, chlorine, etc., except taste caused by iron. In rare conditions a white film may be noticed immediately after installation. If this should occur, flushing the filter for several hours will clear the water and once clear, the condition will not re-occur.



SEDIMENT AND TURBIDITY FILTERS:

This filter will filter out dirt, silica, etc. It has a lifetime fill and should be backwashed semi-weekly or weekly depending on local conditions. Head loss is very low.

ACID NEUTRALIZERS:

The mineral used is CALCITE and will dissolve in proportion to the amount of acid in the raw water. When the unit is installed measure the distance from the top of the tank to the mineral bed. Every four to six months, the mineral should be measured and the mineral used should be replaced. (Dome plug)

This unit will add approximately 6 grains per gallon to the original hardness of the raw water. This should be kept in mind when figuring regeneration for a water softener.

The acid neutralizer will precipitate iron and filter it up to several ppm, but the unit is not meant to be an iron filter and should be followed by a softener or iron filter to insure complete iron removal.

IRON FILTERS:

This filter is the most efficient for general iron removal, and will not add hardness to the water. These filters will normally be shipped with birm fill unless ordered otherwise. If the mineral ordered is birm, no regeneration is required; just periodic backwash.

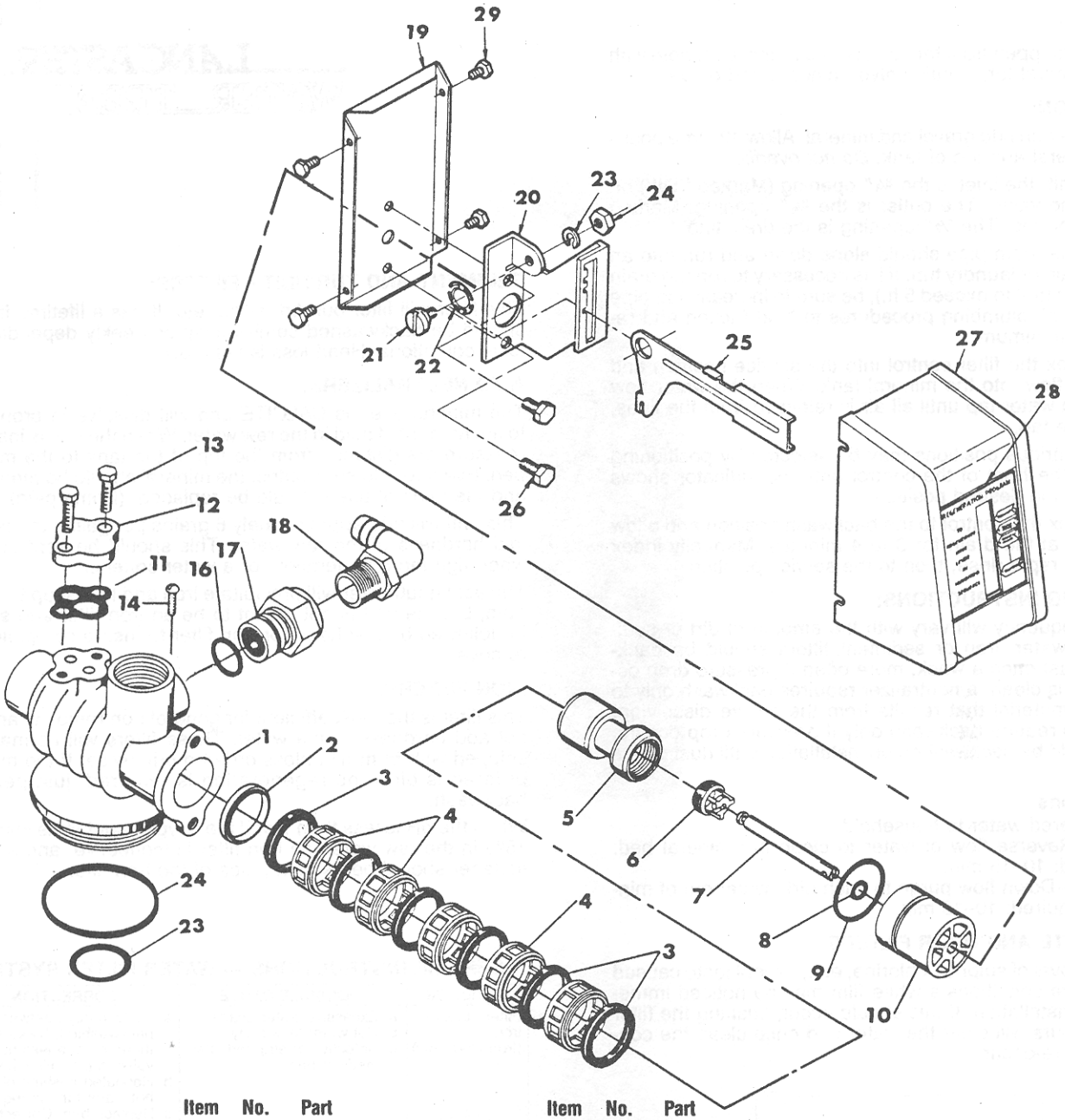
When the pH is less than 7 or if the oxygen content is less than 15% in the raw water, an iron filter is ineffective, and a water softener should be used in place of the iron filter.

SERVICE INSTRUCTIONS — WATER FILTER SYSTEM

PROBLEM	POSSIBLE CAUSE	CORRECTION
Filter "bleeds" iron. (Iron filter only)	a. Excessive water usage b. Hot water tank rusty c. Defective or stripped filter medium bed.	a. Reduce days between backwashing. Make sure there is not a leaking valve in the toilet/sinks. b. Repeated flushing of the hot water tank is required. c. Replace bed. Correct pH or hydrocarbon level of water.
Loss of water pressure	a. Iron or turbidity buildup in water filter b. Inlet of control plugged due to foreign material broken loose from pipes by recent work done on plumbing system c. Inadequate backwash flow rate	a. Reduce days between backwashing so filter backwashes more often. Note: make sure filter is sized large enough to handle water usage. b. Remove piston and clean control. c. Make sure filter has correct drain flow control. Be sure flow control is not clogged or drain line restricted. Be sure water pressure has not dropped.
Drain flows continuously	a. Foreign material in control. b. Internal control leak c. Control valve jammed in backwash.	a. Remove piston assembly and inspect bore, remove foreign material and check control in various cycle positions. b. Replace seals and/or piston assembly. c. Replace piston, seals, and spacers.

PARTS LIST

1500 MANUAL TOP MOUNT VALVE



Item No.	No. Req'd.	Part No.	Description
1	1	10680	Valve Body
2	1	10757	End Spacer
3	6	10545	Seal Rings
4	5	11451	Spacers
5	1	15168	Piston
6	1	14309	Retainer
7	1	14452	Piston Rod
8	1	10209	Quad Ring
9	1	10234	Seal "O" Ring
10	1	10598	End Plug Assy.
11	1	11475	Gasket
12	1	11893	Flat Cap
13	2	12112	Screws
14	1	11180	Screw
16	1	11183	"O" Ring
17	1	11385	Drain Flow Control .5 GPM for –1 Series .7 GPM for –2 Series

Item No.	No. Req'd.	Part No.	Description
18	1	12338	Drain Fitting
19	1	12593	Back Plate
20	1	12592	Bracket
21	1	12596	Pivot Screw
22	1	12707	Spring Washer
23	1	10909	Spring Clip
24	1	11235	Nut
25	1	12594	Valve Lever
26	2	10231	Screws
27	1	60224	Cover
28	1	14219	Label
2 thru 4		60121	Seal Kit
5 thru 10		60090	Piston Assembly

LANCASTER WATER TREATMENT A DIVISION OF C-B TOOL CO.
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