

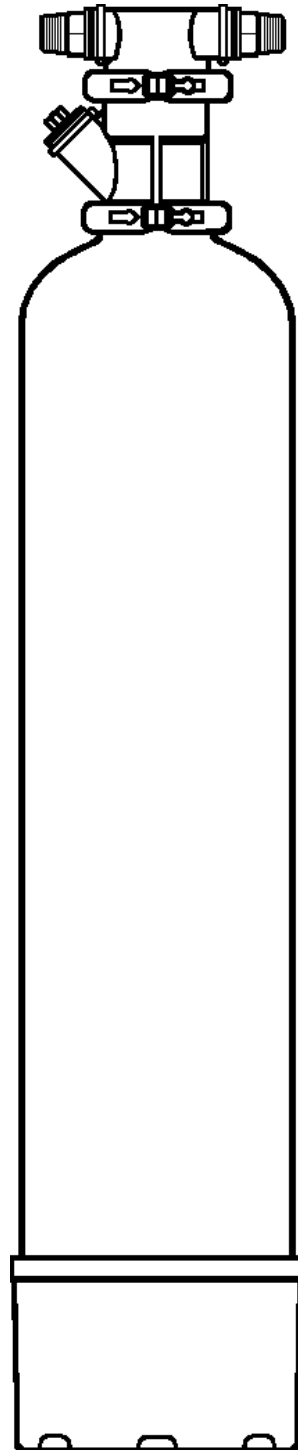
Aqua-Pure®

INSTALLATION AND OPERATING INSTRUCTIONS

APUN Series Upflow Acid Neutralizer

MODELS:

APUN101
APUN201
APUN301



WaterGroup

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HOW A NEUTRALIZER WORKS:

The low pH (acid) water passes through a special limestone neutralizing media and slowly dissolves the media raising the pH to approximately 7 (neutral). Periodic media replenishment is therefore required. The frequency and amount of media replenishment depends on the volume of water used and how acidic the water is before treatment. Your dealer can provide an estimate of your replenishment requirements.

APUN Series Upflow Neutralizers virtually eliminate the possibility of media bed "cementing" because the water to be treated actually "upflows" through the neutralizer media bed! This procedure requires **NO** electricity or backwashing.

A large fillport permits easy replenishment of the "sacrificial" neutralizing media by the homeowner rather than having to call a service man.

INSTALLATION:

ALL PLUMBING MUST CONFORM TO LOCAL CODES.

- (1) Refer to TYPICAL INSTALLATION SEQUENCE (Figure 1) for correct placement of neutralizer in relationship to other water treatment devices.
- (2) Shut off all water at main supply. On a PRIVATE WELL SYSTEM, turn off power to pump and drain pressure tank. Make certain pressure is relieved from complete system by opening nearest faucet to drain system. SHUT OFF FUEL SUPPLY TO HOT WATER HEATER.
- (3) A Flow Control has been provided with your unit. We recommend the Flow Control be installed to reduce or eliminate the possibility of a malfunction should the recommended flow rate be exceeded. To install the Flow Control, lubricate its o-ring with silicon grease and press it into the nipple (See Figure 2). Install quick connect nipples (packaged separately) into head. Be certain that nipple with Flow Control installed is connected to the Outlet of the unit. O-rings on nipples should be lubricated with silicone grease. Make sure nipples are fully inserted into head prior to installing quick connect clips.
- (4) Gently rock tank from side to side in order to make sure the gravel shipped inside the tank is spread across the bottom of the tank. Gravel may have shifted during shipping and handling.
- (5) Refer to diagram (Figure 3) for recommended plumbing procedure. Cut main supply line as required to fit plumbing to the inlet and outlet of neutralizer. Use thread tape on nipple threads, as most pipe thread pastes will cause deterioration of plastic fittings. Hold nipples with wrench while attaching plumbing. DO NOT OVERTIGHTEN. Be sure to install boiler drain (provided) on the outlet side of filter. A three valve bypass should be installed as shown.

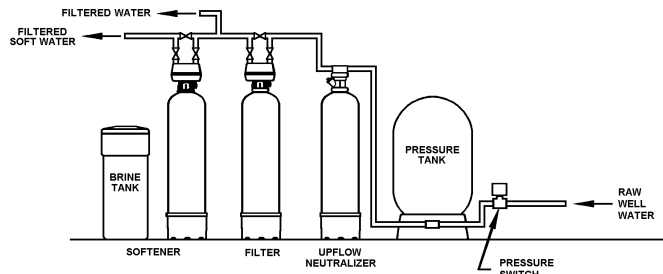
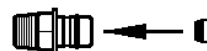


Figure 1. TYPICAL INSTALLATION SEQUENCE

INSTALL FLOW CONTROL INTO NIPPLE AS INSTRUCTED



INSTALL NIPPLE INTO UPFLOW HEAD AS INSTRUCTED

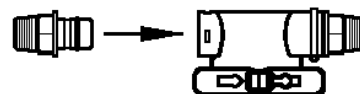


Figure 2. FLOW CONTROL INSTALLATION

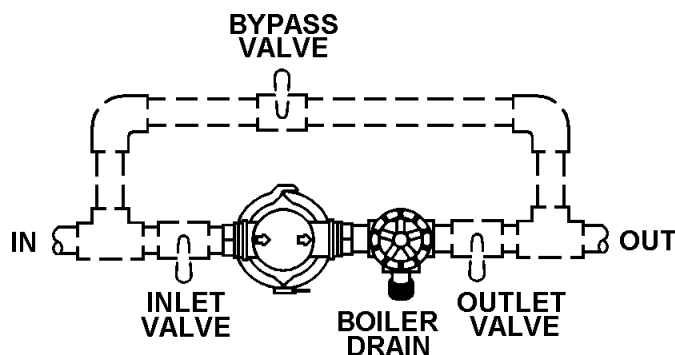


Figure 3. RECOMMENDED PLUMBING PROCEDURE

NOTES:

- (1) Allow work space around system and minimum of 24 inches above tank units for loading media.
- (2) Solid lines (————) indicate furnished by Cuno Inc.
- (3) Phantom Lines (— -- —) indicate furnished by customer.
- (4) Installation of plumbing must be as shown on drawing to insure correct flow through filter system.

- (6) After completion of plumbing connections, remove fillport cap (Figure 4) and pour filter media into mineral tank using funnel provided (Figure 5). DO NOT fill tank above the line on the side of the mineral tank. Overfilling the tank can result in filter media entering the service lines. You may have been provided more media than is required for the initial fill. Save this extra media for future replenishment.

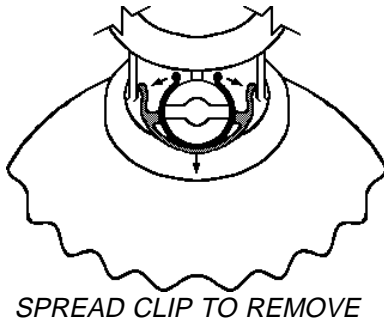


Figure 4. FILLPORT CAP REMOVAL

- (7) Close inlet and outlet valves and then turn water supply back on. Using a garden hose or bucket, fill unit with water through fillport. Replace fillport cap.
- (8) Attach a garden hose to boiler drain installed on outlet of filter. Discharge of hose should be into a bucket or drain. Open boiler drain and slowly open inlet valve to flush filter. Discharge water from hose will be milky white due to fines generated during shipping and handling. Very fine particles of filter media may also be observed in the water. If "sand" like particles are observed, reduce flush flow rate and then gradually increase. Continue to flush until discharge water runs clear.
- (9) Upon completion of flushing, close boiler drain and bypass valve and open outlet valve.
- (10) Installation is now complete. Turn water heater back on and test treated water.

IMPORTANT NOTES:

1. If the home utilizes a tankless water heater, a water softener must be installed following the filter.
2. If the pH is initially over corrected, the bypass valve can be opened slightly to mix untreated water with treated water to achieve the desired level.

MAINTENANCE:

The media in this filter is sacrificial, therefore it must be replenished periodically. The media level can be checked by placing a bright light behind the tank. When the media level is more than two inches below the original level, add the required media to return it to its original level.

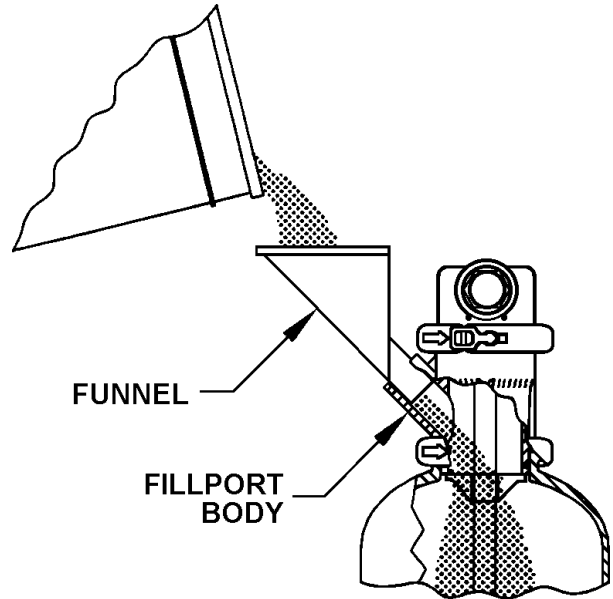


Figure 5. ADDITION OF FILTER MEDIA

REPLENISHING MEDIA:

- (1) Close INLET and OUTLET valves and open BYPASS valve so untreated water can still be used during the replenishment operation.
- (2) Open boiler drain to relieve pressure. Remove fillport cap, some water will drain out of the fillport opening. Use a tube to siphon approximately two gallons of water from the tank.
- (3) Using a funnel, add the required amount of media. NEVER fill to a level above the indicated line on the media tank. A bright light may be placed behind the tank to observe the media level.
- (4) Refer to Step 8 for flushing instructions to complete the replenishment operation.

TROUBLESHOOTING

PROBLEM	SOLUTION
A. Neutralizer overcorrects upon installation or after replenishment	1. Slightly open bypass valve to allow untreated and treated water to mix to obtain desired pH level. Periodically test treated water pH and close bypass valve when pH begins to drop.
B. Neutralizer fails to increase pH upon installation.	1. Make sure bypass valve is closed. 2. Test water. If high hardness or total dissolved solids (TDS), seek alternate means of adjustment such as feeding a solution of soda ash or caustic soda.
C. Neutralizer fails to increase pH after being in Service.	1. Sacrificial media requires replenishment.
D. Excessive pressure drop.	1. Check untreated water for sediment, silt or sand. Install sand trap or multiple cartridge filter prior to neutralizer.

IMPORTANT SERVICING NOTE:

Under normal conditions, the head and fillport assembly should never require disassembly. However, should circumstances require disassembly, the clamp may be removed by removing latch. Pressure should be relieved before attempting any disassembly.

Upon reassembly, all o-rings should be lubricated with silicone grease. Reassemble clamp as shown in Figure 6.

MAKE SURE ARROWS ON LATCH SIDE OF CLAMP ARE ALIGNED.

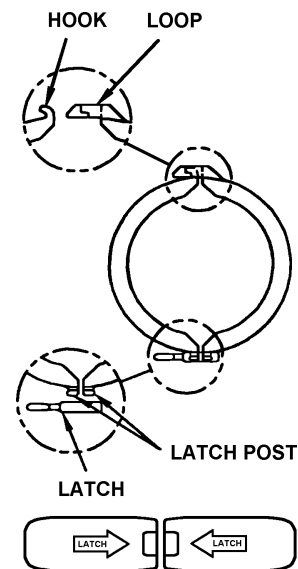
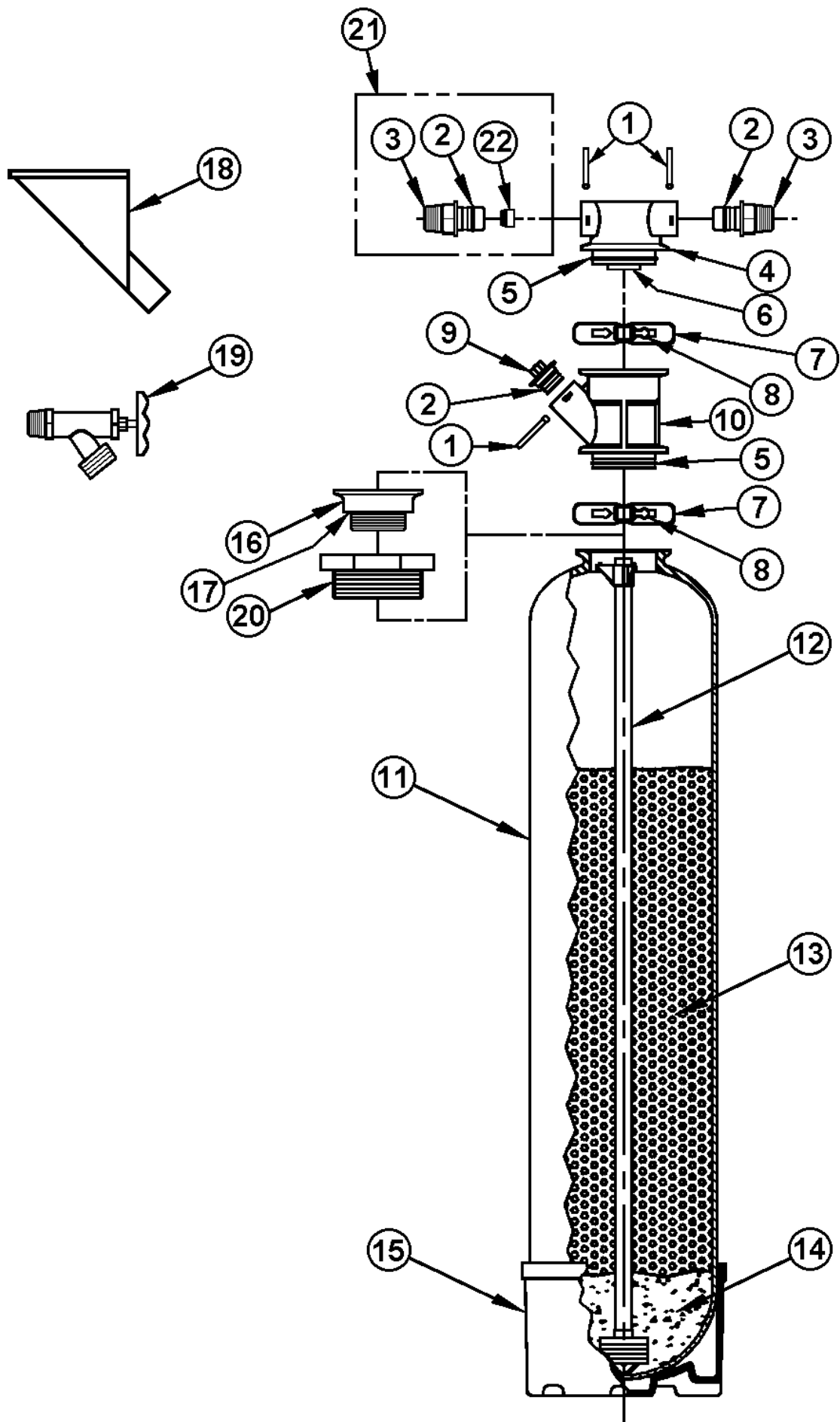


Figure 6. CLAMP REMOVAL

SPECIFICATIONS

Model No.	Media (cu.ft.)	Pipe Size (inches)	Dimensions (inches)		Flow Rates (gpm)*	
			Diameter	Height	Continuous	Service
APUN101	1.0	1	10	52	3	6
APUN201	2.0	1	12	61	5	7
APUN301	3.0	1	14	74	7	10

*The lower the pH (acidity) of the water being treated is, the more rapid will be the attrition rate of the media and the slower it should pass through the bed, increase unit size accordingly.



COMPONENT PARTS

Ref. No.	Description	APUN101	APUN201	APUN301
1	Quick Release Clip	QRC-20	QRC-20	QRC-20
2	O-ring	ORG-214	ORG-214	ORG-214
3	Nipple Kit, 1" NPT (Incl. 2 ea. Ref. 1, 2 & 3) Nipple Kit, 3/4" NPT (Incl. 2 ea. Ref. 1, 2 & 3) Nipple Kit, 1.5" NPT (Incl. 2 ea. Ref. 1, 2 & 3)	PKNPL100* PKNPL075** PKNPL150**	PKNPL100* PKNPL075** PKNPL150**	PKNPL100* PKNPL075** PKNPL150**
4	Upflow Flange Head (Incl. 1 ea. Ref. 4, 5 & 6)	FH45UX	FH45UX	FH45UX
5	O-ring	ORG-234	ORG-234	ORG-234
6	Inside Tube O-ring	11710	11710	11710
7	Clamp, Flange (Incl. 1 ea. Ref. 7 & 8)	FC45X	FC45X	FC45X
8	Latch, Clamp	FC45C	FC45C	FC45C
9	Fillport Cap Assy. (Incl. 1 ea. Ref. 1, 2 & 9)	FF45CX	FF45CX	FF45CX
10	Fillport Adapter Assy. (Incl. 1 ea. Ref. 1, 2, 5, 9 & 10)	FF45BX	FF45BX	FF45BX
11	Mineral Tank w/Base (Incl. Ref. 15)	MTP1044FB	MTP1254FB	MTP1465B
12	Upflow Distributor Tube	DF37-48	DF37-58	DF37-69
13	Media, Calcite	C-10P	C-10P (x2)	C-10P (x3)
14	Gravel, 1/4 x 1/8	QC-18	QC-22	QC-25
15	Tank Base	T06-10P	T06A-12P	T06A-14P
16	Flange Adapter Assy. (Incl. Ref. 16 & 17)	---	---	FA45RX
17	O-ring	---	---	10381
18	Funnel	FNL-1	FNL-1	FNL-1
19	Boiler Drain	VLVBRZ0001	VLVBRZ0001	VLVBRZ0001
20	Bushing, 2 1/2-8 x 4-8	---	---	2752-2
21	Flow Control Assy. (Incl. Ref. 1, 2, 3 & 22)	UNPARTS-07	UNPARTS-12	UNPARTS-00
22	Flow Control Retainer	***	***	***

* Standard

** May be purchased separately

*** Contact dealer

