The Concept: Model K marine toilets are designed and built for years of dependable service. Commercial users, live-aboards, and frequent boaters will appreciate the durability and rugged construction. Waste is pumped manually or electrically from the bowl with a 3" bronze piston with replaceable rings.

Installation: Fasten the pump securely to the floor or mount platform. Assure that there is sufficient room to operate the manual pump handle, and to completely open the seat and cover.

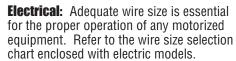
Plumbing: The inlet is at the back of the toilet. To make a connection straight back use 1" ID hose or GROCO® TP-750 for 3/4" ID hose. To make a 90-degree connection use $GROCO_{\mathbb{R}}$ TPC-750 for 3/4" ID hose.

The toilet discharge is the swivel fitting at the left and below the bowl. Loosen the hex nuts and screws that secure the swivel and point it to the desired direction. Retighten (do not overtighten) the swivel screws. Connect 1-1/2" ID sanitation hose.

Vented Loops: The 1-1/2" plumbing line between the toilet discharge and the holding tank or treatment device should be fitted with a GROCO_® HVL-1500 vented loop to prevent waste from flowing back to the toilet after pumping has stopped or while the boat is moving, especially in sailboats. A vented loop will help to maintain an odorfree toilet compartment.

Service Notes:

- The manufacture date is stamped on the mount pad for the electric drive motor. If there is no date stamp the manufacture date is prior to 11/92.
- 4985 series bowl is standard after 6/94; 4978 bowl is no longer available. When replacing 4978 with 4985, the seat must be replaced with 500-D.
- Replacement bowls and seats are available in standard white, bone and gray.
- K-32 is standard after 10/91. It replaces K-3 and K-2, and enables the piston rings to be ALL replaced from the top of the pump without S. removing K-2.
- The replacement of HT-6566-K is recommended after eight (8) years of use.
- Special-order HA-13 to replace HA-1 if a straight discharge is desired.

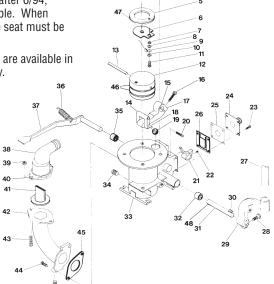


Operation: K toilets have two modes of operation, water-in and waste-out. Each is independantly controlled by the user to suit the desired operation.

While pumping, depress the footpedal to open the inlet valve and allow flush water to enter. Release the footpedal when no more water is needed.

The removal of waste and tissue is controlled by the action of the pump handle. As long as pumping takes place the contents of the bowl will be removed. The footpedal does not need to be depressed to remove waste.

To dry-flush or to reduce the amount of water in the bowl after a flush, pump the handle without depressing the footpedal. A small amount of water should





Winterization: Freezing water will damage the toilet pump. Remove two (2) drain plugs to drain water before freezing weather. One is located of the bottom of the discharge elbow as its exits the toilet body: the other is at the bottom of the toilet body on the left side below the footpedal.

Disconnect inlet and discharge hoses before draining.

remain in the bowl after flushing.					Model K Regular
Note: Once the bowl has been	Item	Part Number	Description	Qty	Kit
cleared pump an additional five	1	4985-0	Bowl (White color)	1	
strokes to clear the toilet		4985-1	Bowl (Bone color)		
discharge arm and joker valve.		4985-2	Bowl (Grey color)		
discharge arm and joker valve.	2	51618x2HB	Bolts	4	
Note: Do not flush cigarette butts	3	20LP	Washers	4	
or trash.	4	HT-52-A	Gasket	1	Х
o	5	K-4	Plate	1	
Maintenance: Periodic	6-7	HT-26-A	Gasket	1	Х
lubrication of the pump's piston	8-11	HT-84-A	Spring Assembly	1	Х
and rings will prevent salt build-	12-18	K-32	Piston & Crank	1	
up. Pour 1/4 cup of vegetable oil	12	K-92	Piston & Rings	1	
into the bowl and flush normally.	13	K-3-P	Piston Pin	1	
into the som and hadn hormany.	14-18	K-2	Crank Assembly	1	
	19	HT-56	Check Ball	1	Х
2	20	1024X1RB	Screw	1	
13	21-22	K-1	Cam	1	
	23	1024x12HB	Screws	4	
4	24	HT-3556	Inlet	1	
(0.09)	25	HT-3557-A	Gasket	1	Х
	26	HT-3557	Gasket	1	Х
47	27	HT-3560-C	Handle	1	
6	28	51618x1HB	Bolt	1	
80	29	HT-3560-D	Arm	1	
13	30, 31	HT-6566-K	Shaft	1	
12	30, 48	KS	Key Set	1	
16	32	WS-2422	Seal	1	Х
46	33	K-A	Pump Housing	1	
14 17 25 23	34	1827HB	Drain Plug	2	
35 18 26 23	35	HT-3564	Seal	1	Х
19 20	36	S-72587	Spring	1	
	37	HT-3570-A	Pedal	1	
	38	HA-1	Discharge	1	
27	40	HA-11	Bracket	1	
21 22	41	H-27-A	Joker Valve	1	Х
34	42	K-8	Discharge	1	
30	45	K-7-A	Gasket	1	Х
33 32	46	K-3-R	Piston Rings Set (2)	1	Х
33 32 48 31 28	47	2-041	0-Ring	1	Х
29	NS	500-D-0	Seat (White color)	1	
		500-D-1	Seat (Bone color)		
	NO.	500-D-2	Seat (Grey color)		
	NS	TT-50 NLA	Seat for 4978 bowl	1	
7			1	1	