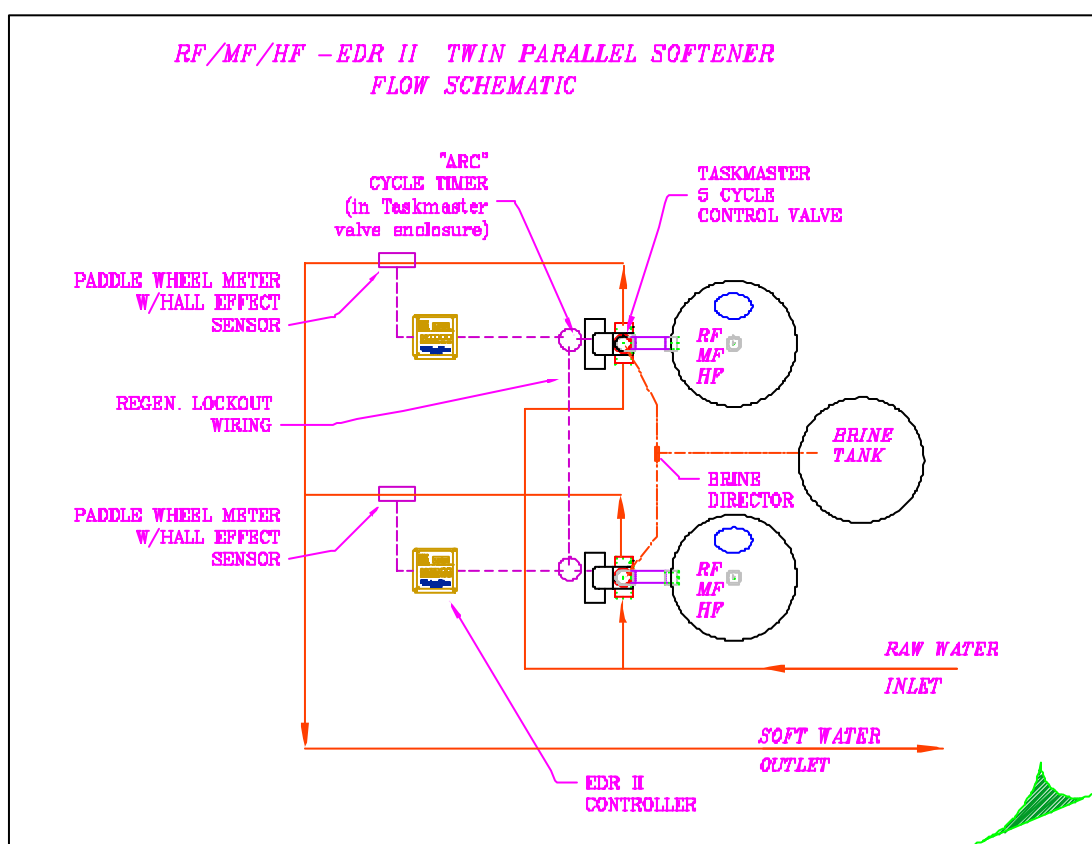


Twin Parallel (-TP) Controls

Definition. A twin parallel system has two demand regenerated mineral vessels with separate meters and controllers. Each unit regenerates when its demand set point is reached and return to service immediately after regeneration. One vessel and usually two are always in service providing a continuous stream of softened water.

Control Scheme. All -TP systems are demand regenerated. Each tank is controlled independently by a separate controller (EDRII or ED520). For each mineral vessel, the separate controllers determine if the resin in the mineral tank is exhausted based on the volume of water treated (or totalized flow) and then signals the cycle timer to regenerate that particular vessel. The vessels operate independently except during regeneration. A connection between the units prevents simultaneous regeneration.

Systems. All of the Water King softeners can be configured in a twin-parallel. The diagram below shows an example of a twin parallel system using the Taskmaster valve and EDRII.



NOTES ON DIAGRAM. The diagram shows a configuration for a Twin Parallel system using Taskmaster valves with internal ejectors, which includes all RF and MF systems and HF systems up to HF 750.

CAT402.2

COMPONENTS OF TWIN PARALLEL (-TP) CONTROL SYSTEM					
	RF, MF, HF	RF, MF, HF Superflow	RF, MF, HF Superflow	VN	VN
Pipe Size	1 ½", 2" & 2 ½"	2 ½" & 3"	4" & 6"	up to 3"	4" & up
Controller (Two)	EDRII	EDRII	ED520	EDRII	ED520
Meters (Two)	PW075, PW150 or PW300 OR TM100 or TM200	PW150 or PW300 OR TM200	PW400S & PW600S Saddle Mounted Meters	PW075, PW150 or PW300 OR TM100 or TM200	PWXXXS Series Saddle Mounted Meters
Cycle Timers (Two)	ARC	ARC	ARC	ARC	ARC
Valves	Taskmaster (One per tank)	Taskmaster (One per tank)	Taskmaster (One per tank)	DM or DP Series Diaphragm (Six per tank)	DM or DP Series Diaphragm (Six per tank)
Stager	NA	NA	NA	Series 48 Stager (Two)	Series 48 Stager (Two)
Auxillary Valves	SOK (One per tank)	2 ½" or 3" SFK (One per tank)	4" or 6" Flanged or Gruvloc SFK (One per tank)	NA	NA

Notes:

SOK – Shut Off Kit to prevent hard water bypass during regeneration.

SFK – Super Flow Kit to allow service flow to bypass Taskmaster also prevents hard water bypass during regeneration.

ADVANTAGES OF EDRII TWIN PARALLEL CONTROL

PROVEN, EXPANDABLE, EFFICIENT, ROBUST, ECONOMICAL

PROVEN. The EDRII has been in production since the mid 80's. There are thousands of successful installations.

EXPANDABLE. The EDRII twin parallel control system allows easy conversion to twin alternating or triplex mode with no new controllers, very little new wiring, and no new technology to learn.

EFFICIENT. The twin and triplex parallel systems allow maximum utilization of capacity. All tanks are on line unless they are in regeneration. Headloss is minimized. Demand regeneration is the best balance of reliability and efficiency of operation. By optimizing the water treated between regenerations, the salt usage can be minimized and hardness breakthrough can be eliminated.

ROBUST. The twin and triplex parallel systems are robust. If one of the EDRII's goes down, the remaining unit(s) will keep working. An electronics malfunction does not cripple the entire system. A separate EDRII and flow meter is provided for each unit. This means you can read the flow through each unit without touching the controls. Redundancy is built into the system.

ECONOMICAL. The EDRII is the most economical controller on the market. Coupled with its other advantages and a top quality Water King system, the EDRII minimizes capital expenditures and O & M costs.