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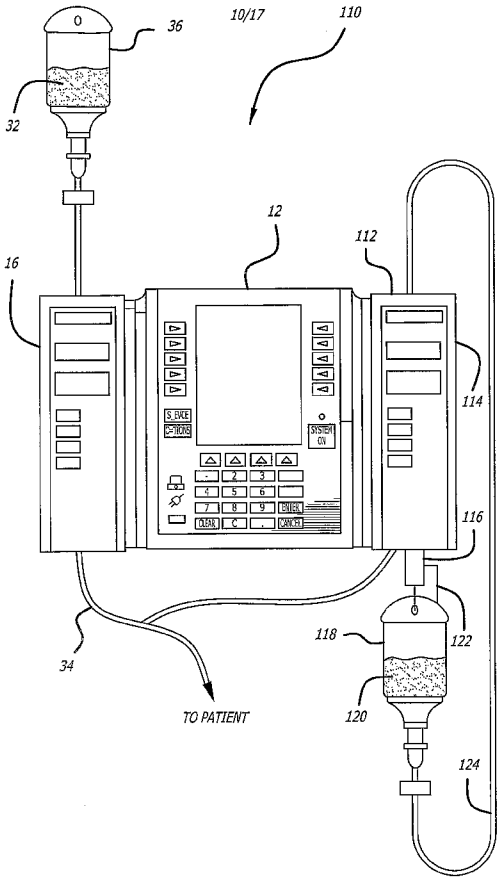
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(54) Title: MULTICHANNEL COORDINATED INFUSION SYSTEM



(57) Abstract: An infusion system comprises a first pump device that delivers a first infusate, preferably a medication, to an IV infusion line and a second pump device that delivers a second infusate, preferably a neutral carrying solution, to the IV line. The infusion system also includes a measurement device that determines an amount of undelivered first infusate remaining in a receptacle. Furthermore, the infusion system includes a control system that communicates with the first and second delivery devices and the measurement device to determine an optimum first infusate infusion flow rate based on the determined amount of undelivered first infusate remaining in the system, a predetermined volume of fluid to be infused, and a predetermined infusion time period, and for controlling the first delivery unit accordingly. The present invention also provides methods for infusing a medication into a patient.

WO 2006/034178 A2

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