

ABSTRACT OF THE INVENTION
PROGRAMMABLE DISPENSOR

The present invention is a programmable dispenser for dispensing the
5 appropriate amount of cleansing agents during peak period and adequate
amount of cleansing agents during off-peak period without comprising the
overall bacteria kill rate. The dispenser features a microcontroller coupled to
a solenoid valve for allowing users to program the dispensing of cleansing
agents over a predetermined number of peak-hour intervals and at least one
10 cut-off period. The dispenser of the present invention also incorporates a
float subassembly within a bucket for receiving measured amounts of
cleansing agents and accomplishing two important functions in response to
the actual usage of urinal: (1) dosing the urinal upon demand when the
urinal is flushed, and (2) dosing the urinal directly when the urinal is either
15 not flushed or flushed infrequently. Dosing on demand is carried out when a
portion of the flushed liquid from the flush pipe is diverted to the bucket over
a connecting pipe and an elbow channel. A float compartment of the float
subassembly topples the subassembly which is pivoted over a hinge in the
bucket. The cleansing agents mixes with the flush liquid before returning to
20 the flush pipe. Direct dosing results from the overflow of cleansing agents
from a tongue portion of the float subassembly through the elbow channel
and connecting pipe into a discharge tube within the flush pipe. As such, a
given supply of cleansing agents is guranteed to meet the pattern of actual
urinal usage without comprising the overall bacteria kill rate in urinals.

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Figure 1.