TITLE OF INVENTION

AUTHENTICATING OF WATER PURIFIER FILTER AND METHOD TO DETERMINE THE LIFE SPAN OF THE WATER FILTER

BACKGROUND OF THE INVENTION

A. Field of The Invention

The present invention relates to a water purifier, and in particular, by employing circuitry and a meter to verify authenticity of the water purifier filter and method for checking the life span of the water purifier filter.

B. Background Art

Water filters available in the market suffer from the drawback that they are cumbersome to use and to replace after a period of time of usage since there is no way to find out the efficacy of the filter and the life span of the filters, and whether it is time to get a change in the filter in order to obtain purified water. Currently, the available practise to determine the lifespan of a filter in a water purifier is by recording the number of days, or number of litres, or monitoring slow flowrate or blockages, and/or visual checking for brown stains. In these practises, the water purifier unit and the filter work independently and there is no communications between the filter and the water purifier. The filter usage data is stored in the water purifier and not in the filter itself, and this means that the exhausted filter may be a brand new filter when it is used on another water purifier. This will allow the user to reset filter to continue using the exhausted filter even though the exhausted filter is inefficient. As a result, based on current filter lifespan monitoring methods, the filter usage monitoring is not accurate nor complete. This brings a risk of compromising the filter's performance and defeated the purposed of having one in the water purifier. The prolong-continual usage of exhausted filter may lead to poor chlorine removal, poor sediments removal, poor VOC removal, poor microorganism removal, and contaminants breeding due to exhausted anti-bacteria properties.

Filters used in water purifiers are manufactured by companies producing the purifiers in consideration of physical and chemical properties suitable for the environment of the purifiers. The filters are consumable in the water purifier and are in general supplied with by the water purifiers companies for each model of the water purifier. Thus, it is important to have the right