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## SEIKO to lead the watch industry by switching to mercury-free batteries.

With its unique Spring Drive and Kinetic technology and its industry-leading initiatives in compliance with global regulations and standards, (including the EU WEEE, Nickel and RoHS Directives), SEIKO has always been at the forefront of environmental actions in the watch industry.

In 2007/08, SEIKO will again reduce the environmental impact of its products by converting to the use of mercury-free batteries in advance of changes in button battery regulations in the world.

## Mercury: A dangerous element

It has long been recognised that mercury is a noxious and dangerous substance and the usage of mercury batteries has been banned for many years in most countries. However, exceptions have always been made for button-type watch batteries because of the very low levels of mercury they contain and because mercury's anti-corrosion properties contributed to the overall product safety. Mercury has been used to control the corrosion of the zinc within the battery; this was necessary to eliminate the generation of hydrogen gas which could cause the battery to swell and leak. Today, all silver oxide batteries have up to 2% mercury by weight. The introduction of mercury-free batteries could eliminate hundreds of kilograms of this dangerous metal entering the environment every year.



SEIKO Mercury-Free batteries, "0% of HG"



## Challenge of quality

SEIKO has had high and unique quality standards even for batteries. This switching to mercury-free battery installation is not an exception. As a result of passing the series of serious quality tests, SEIKO mercury-free batteries ensure the high quality, keeping a stable voltage with low leakage, they have good preservation longevity even in a wide temperature range. Seiko Instruments Inc., as a battery producer, for example, has developed new mercury-free silver oxide batteries, which are not only more environmentally friendly but performance has also improved. Using a new electrolyte, the new SEIKO batteries work better at low temperatures range to -20°c to 60°c. Furthermore, leakage resistance has been increased by 50%, thanks to the introduction of a new micro-machine 'crimping' manufacturing process.

## Immediate Implementation

SEIKO watches started to install mercury-free batteries from April, 2007 and all SEIKO watches will have mercury-free batteries by June 2008 on production basis. With this action, SEIKO once again is taking the lead in environmental responsibility in watch industry.

For further detail of our environmental/social contribution, please visit our site : http://www.seikowatches.com/corporate/environment.html