ImageCare Technology – How it Works

HITACHI
Inspire the Next

ImageCare is a lamp power control function developed by Philips that will lower the total cost of ownership of a Hitachi projector. ImageCare decreases energy usage, improves contrast ratio and can lengthen lamp life.

In previous Hitachi projectors there are two power options, Normal or Eco mode. With ImageCare you have four settings Normal, Eco, Intelligent Eco, and Saver modes. *Normal mode* is 100% power, and should output the maximum lumens and color light output stated in the specifications. *Eco mode* drops the power by 35% and all images are dimmed. Eco mode saves power and extends lamp life but you may miss detail on images that need to be projected brighter.

Intelligent Eco mode allows the Projector to sense dark and bright projected images. It automatically lowers the power by 35% to 70% depending on how dark the projected images are and raises the power to the lamp as images get brighter. Using Intelligent Eco mode increases the contrast ratio of the projector while it lessens the use of electricity and lengthens lamp life.

Intelligent Eco mode allows the projector to show brighter images like a spread sheet or power point at normal or 100% power. However, most movies and still pictures use darker images as compared to a spread sheet; the projector will then sense the darker image and automatically adjust the power level of the lamp. As the movie scenes change from lighter to darker the projector will sense these changes and adjust the lamp power accordingly.

Saver Mode also senses and adjusts the image brightness the same as Intelligent Eco mode. Additionally if the projected image does not change in a predetermined amount time the projector will automatically drop the power to the lamp by 70% much like the screen saver on your computer. Users have the ability, through the projector menu, to set the amount of time they want to allow a static image to be projected at maximum power, again just like the screen saver on your computer.

A study was conducted by Futuresource Consulting on classroom uses of a projector. It showed that on average, projectors are actively used for 34% of the school day. The other 66% of the school day the projector is on with no input signal or the same image is left on the screen for more than 5 minutes.
What is happening in the classroom during this time?   The teacher may be lecturing, there might be a class discussion.   During these times full lamp power is not necessary; the projector will sense this static image and will reduce power by 70%. This can translate into as much as an overall power savings of 48%.
 ImageCare combines optimal picture performance with maximum energy savings. Image care also has a positive impact on lamp lifetime. Longer lamp life and lower electricity usage means lower total cost of ownership and decrease maintenance cost.

How can you figure the savings with Image Care Technology?
48% x lamp power (215Watts) x 784 lesson hours/year* x 8.77 cents per kWH**
Or
(48% X 0.215kW) x 784=80.90 kWh x .0877=$7.09 yearly saving per projector
***Per Futuresource consulting**
** Average cost per kWh per the Energy Information Agency, cost may vary