Are You Getting The Performance You Deserve From Your Building Door Controls?

Controls to open doors in your facility may include:
• tactile “paddle” switches (with the symbol of a wheelchair or the word “EXIT”) that people hit or punch
• identification card readers combined with tactile switches
• tactile keypads
• card readers or key pads paired with fingerprint or retinal scanners

What problems have you experienced with tactile components of these controls?
The fact is tactile switches and key pads with moving, mechanical parts are prone to failure under moderate to heavy use or abuse – busy, impatient people simply damage or destroy them. Besides, any controls people must touch present cross-contamination issues; there are almost never effective cleaning protocols in place for controls people have to touch. Plus clean hands in public entry and exit situations is exceedingly rare. Even the ubiquitous squirt bottles of disinfectants we see everywhere are only effective if filled with proper solutions and used under circumstances most people cannot or will not follow.

Since you have to live within a budget, how do you compute the actual cost of tactile switches and key pads over time?

In addition to cost of original units, related parts and their installation, you should consider including in that assessment:
• delay, inconvenience, safety and security costs and risks caused by inoperative units, for example, failure of critical entry/exit controls during a weekend or other inconvenient time
• greater than replacement unit expense of having technicians install and test them
• time spent arranging for disposition of broken units along with attendant distractions and expense
• the burden of being not sufficiently “green” - broken tactile switches and key pads require more frequent disposition and add more junk to landfills than more durable, touchless devices
• harder to measure problems caused by contamination transfer of whatever each user left on tactile keys or buttons for all subsequent users to experience as well as stress and injuries to fingers caused by hitting or pushing switch plates and other controls or even missing them by mistake and striking whatever is nearby

Do you have an effective alternative?
One practical and economical approach involves human-machine interfaces with no moving parts and all sensitive components sealed inside an enclosure beyond public reach, where people have to actually touch nothing to achieve the desired

result.

R. Douglas McPheters (picture at right), President of HoloTouch, Inc.

(www.holotouch.com [1]), owner of HoloTouch® touchless, holographic HMI technology, suggests an effective and inexpensive alternative to traditional tactile human-machine interfaces, whether switches, key pads or other multiple input controls, including these principal components:
• a simple transmission hologram of what would otherwise be a device's keys or buttons
• the hologram's image reproduced by an LED or laser diode so that it floats freely in the air
• an infrared sensor positioned behind the hologram to detect choices people make, without anyone's actually touching anything

One iteration of this innovative technology powers touchless switches (picture at the left) with no moving parts which have been operating without a hiccup at Yale-New Haven Hospital, in New Haven, Connecticut, for nearly two years, in an area where hospital security administrators experience failure of tactile switches every 6 to 8 weeks from use or abuse. To operate a human-machine interface using HoloTouch technology, people need only pass a finger through a holographic image of its keys or buttons, floating freely in the air – no moving parts to fail and no hygiene issues because there's nothing to actually touch in using them.

HoloTouch technology is easily and inexpensively customized to a wide variety of human-machine interfaces, in part due to the rapidly increasing sophistication of touchless, infrared sensors capable of accurately mapping planes in the air and innovative holographic recording techniques.

Posted by Janine E. Mooney, Editor

March 27, 2012

Source URL (retrieved on *07/28/2014 - 6:34pm*):
http://www.wirelessdesignmag.com/blogs/2012/03/are-you-getting-performance-you-deserve-your-building-door-controls?qt-blogs=0

Links:
[1] http://www.holotouch.com/