

PenMount Helps with Touchscreen Linearity Rectification

With touch products gaining popularity, almost all operating systems present themselves in graphic interface. Within such graphic interface, some graphics, however, are usually smaller. Taking Windows for example, the icons in the notification area and the minimize/maximize/close buttons at the upper right corner of an open window are all smaller than most of the others in the same operating system. These smaller images are quite easily clickable when you are using a mouse while it would usually take you great effort to precisely tap on it on a touchscreen. Hence, when you are using a touchscreen for input device, the precision of touchscreen plays an important role for your efficient work. Precision makes you operate fast and correctly.

Since the resistive touchscreens of 4-, 8-, and 5-wired are slightly different from each other as circuiting is concerned, and also due to the difficulty in making ITO evenness equal on each touchscreen to make them have the same linearity, we suggest that you execute 4- or 9-point calibration for each new item that you are starting to use for the first time, so as to make the linearity and the precision of the action area of the whole touchscreen accurate. PenMount makes the calibration points move inward due to the following considerations:

1. For 4- and 8-wired resistive touchscreens, due to the theory, material and design, it is very likely for un-linearity to come up if users operate along the area between the viewing area and the silver trace area at the frame. Such un-linearity is the so-called “edge effect” . For prevention, we move the calibration points inward to reduce the occurrence.
2. For 5-wired resistive touchscreen, the edge linearity differs from brand to brand due to different circuit designs. On certain 5- wired products, their edge linearity appears curving inward which leads to the inaccuracy when calibration value is accessed. Since this would rather deteriorate the precision of the whole touch screen, we move the calibration points inward to make each calibration point we reach more equal.
3. If all calibration points locate around the edge of the viewing area, the bezel on and around touchscreen will obstruct users from accurately tapping on the points. Moving the calibration points inward can avoid such annoyance.

For resistive touchscreens, the situation of touchscreen drift caused by the aging of touchscreen due to environment temperature changes and long time work can be improved through your execution of 16- or 25-point calibration. The more points you pick for calibration reference, the more accuracy the touchscreen will achieve. Starting from version V2.1.0.187, PenMount Windows Universal Driver moves the calibration points inward while the accuracy for outer edge is maintained by the edge compensation through the calculation of mathematical algorithm. Our newest driver V2.2.0.283 can fit all resistive touchscreen brands from various manufacturers and helps your touchscreen reach the best linearity. Your downloading is welcome.

PenMount series of touch software and hardware are designed to meet market demands. If customized specifications are needed, we are always ready and available to help customer to complete their project. For more PenMount controllers and drivers information, please visit our websites, www.amtouch.com.tw or www.penmount.com. If you have any suggestions or comments please feel free to email us at penmount_service@amtouch.com.tw or amt1@amtouch.com.tw.

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