

Calibration of 4840 Touch Screen with Windows Operating System

To insure an accurate response from the touch screen on the 4840, it must be calibrated. The calibration parameters are stored in an EEPROM and can be updated as required. Each unit comes from the factory with the specific calibration parameters stored in the EEPROM for that unit. When the user re-calibrates the unit, the prior calibration parameters are overwritten with the new data.

If the operating system is MicroSoft Windows (98/ME/NT/2000), then the touch screen is calibrated via the MicroTouch driver TouchWare. When using TouchWare the new calibration parameters are stored also in the registry of Windows as reference data, to ensure retention of the proper scaling for the particular video mode in use. When the system is booted up, the values in the registry are compared with those in the EEPROM, and if different, the EEPROM is overwritten with the registry values. That is, the registry values for calibration take precedent.

The implications of the above are very ***important***:

1. If the touch screen is replaced, it ***should be re-calibrated from TouchWare***. Do not depend on the calibration that is done from the installation diskette, since they will be overwritten with the values from the registry (from the last calibration on the prior touch screen).
2. If the hard drive is a clone or ghosted image, its registry values will be from the master unit and will overwrite the specific unit values in the EEPROM. In this case, one ***should re-calibrate each unit individually with TouchWare***, since the original calibration values will be lost.

To calibrate the touch screen via TouchWare, one must access the TouchWare utilities from the Windows desktop. This may also be accessed via the Windows Settings. If necessary, contact the application support for instructions on how to access the Windows desktop. Once in the desktop, touch the TouchWare icon twice (may also use an attached mouse), or via an attached keyboard:

1. Press and hold the "Ctrl" key and then press the "Esc" key (this opens the Start menu)
2. Scroll up to "Settings"
3. Scroll right to "Control Panel" and press "Enter"
4. Scroll down to "TouchWare" and press "Enter" (this opens the TouchWare panel)

Once in the TouchWare panel:

1. Initiate calibration by touching the Calibration button, or via keyboard press "Alt" and "C" keys
2. Touch and hold the lower left hand target until the "Touch Enable" display appears (1-2 sec)
3. Touch and hold the upper right hand target until the "Touch Enable" display appears (1-2 sec)
4. Do not touch the screen until panel appears with the options to "Calibrate" or "Done"
5. Touch the screen near an edge and drag your finger around the edges and verify that the cursor follows your finger - this indicates that the screen is calibrated and working well.
6. If the accuracy is unsatisfactory, repeat the calibration (select the "Calibrate" button).
7. If the calibration is satisfactory, then touch the "Done" button to complete the calibration

Note: The calibration option that may appear under the IBM icon at boot up ("touch 3 times to calibrate...") is not the most accurate calibration. It is optimized for the BIOS Setup and Diagnostic utilities, but close enough to access the TouchWare calibration utility for a more accurate setting.