TouchKit
TouchScreen Utility
User Manual

for MS-DOS
Version: 6.1.0

CONTENT:

CHAPTER 1. QUICK GUIDE 2

1.1 SUPPORTED INTERFACES..... 2

1.2 FEATURES 2

CHAPTER 2. INSTALLING TOUCHKIT 3

CHAPTER 3. CONFIGURATION UTILITY AND RIGHT BUTTON EMULATOR..... 4

CHAPTER 4. UNINSTALLING TOUCHKIT 8

Chapter 1. Quick Guide

1.1 Supported Interfaces

Touch Controller	RS232	PS/2
4-wire	Ready	Ready
5-wire	Ready	Ready
8-wire	Ready	Ready
S. Capacitive	Ready	X
SAW	Ready	X

1.2 Features

Features	
Calibration	Fast full oriental 4 points position
Compensation	Accurate 25 points linearity compensation.
Draw Test	Position and linearity verification
Language	Support 10 languages on Windows
Advanced Feature	1. Support monitor / display rotation 2. Support multiple monitor / display 3. Support QVGA and Half-VGA function 4. Support edge compensation 5. Support constant touch
Controller Setting	1. Support multiple controllers 2. Dynamical add / remove controllers 3. Change Controller interface without reboot.
Mouse Emulator	1. Right / Left button emulation 2. Normal / Click on touch / Click on release mode 3. Auto right button
Sound Notification	1. Sound option (No Sound / Touch Down / Lift Up) 2. Frequency adjustment 3. Duration adjustment 4. Beep from sound card
Double Click	1. Configurable double click speed 2. Configurable double click area
OS support	1. Windows 7 / Vista / XP / 2000 /NT4 /ME / 98 /95 Windows Embedded / Windows XP Tablet PC Edition 2. Windows CE 2.12 / 3.0 / .NET (4.0 / 5.0) / 6.0 3. Linux (Most Kernel 2.4.x / 2.6.x distributions on 32/64 bit versions) 4. iMac. OS9.X / OS X 5. MS-DOS 6.22 6. QNX Neutrino RTOS v6.3
COM port support	1. Support COM 1 ~ COM 256 for Windows and Linux 2. Support COM 1 ~ COM 8 for DOS

Chapter 2. Installing TouchKit

TouchKit is software, which contains drivers of the touch panel controllers for RS232 and PS/2, and utilities for controller configuration:

- **Configuration support**
  Touchkit provides three program utilities for calibration and draw test. They are
  a.) **tp4pcal.exe** for 4 points calibration
  b.) **tp25pcal.exe** for 25 points calibration
  c.) **tpdraw.exe** for draw test

- **Right button support**
  This is utility for emulating the right and left button of mouse through controlling touch panel. Users can toggle between right or left mouse buttons with this utility. This utility supports only video mode three.

Follow these steps to install **TouchKit.**

1. Put the **TouchKit** CD to CD-ROM.
2. Change directory to **<CD-ROM drive>:\DOS**
3. Execute the installation program: **INSTALL.BAT**
   For example:

   syntax: install <path of destination directory>

   ```
   E:\DOS>install c:\
   Destination C:\ does not exist; shall I create it? (Y/n)
   Change directory to C:\
   Copy files...
   Copy files...Done
   Append settings to C:\AUTOEXEC.BAT...
   (Original C:\AUTOEXEC.BAT is saved as*.TKT)
   Do you want to activate Right Button Tool? (Y,N)
   ```

4. Reboot computer.

Chapter 3. Configuration Utility and Right Button Emulator

After installation **TouchKit** and rebooting system, the device driver will probe all communication devices by default. Execute **TPANEL -?** for more options.

```
TouchKit for DOS Version 1.00.02.0904

Test TKT1...no panel found
Test TKT2...no panel found
Test  PS2...Loopback OK

Read settings from PS2...OK
Driver installed
```

Note: If users attach **TouchKit** controller to another communication port, please reboot computer.

To avoid confusing the end-user, **TouchKit** driver use **the virtual TKT** port name instead of **the com** port name. In order version driver, **TouchKit** driver parsers the com1 and com2 from the system environment. **If the users need another com port, for example com5**, all the end-user to do is **set the environment variables as set COM1 = IOADDR, IRQ**. However, this new driver package **use TKT instead of com**.

This suit supports at most two serial ports; which are **TKT1 (IO:0x3F8 IRQ:4)** and **TKT2 (IO:0x2F8 IRQ:3)** by default. **If BIOS settings differ (ex. COM1 is of IO addr 3E8 and IRQ 4), add one more line (before TPANEL.EXE) in AUTOEXEC.BAT to redirect:**

SET TKT1 = 3E8 4

Also, If the users need the controller at another serial port (for example, com5 where IO address is 4F8, IRQ is 4), it need to redirect the system environment variable by

SET TKT1 = 4F8 4

before launch TPANEL.EXE in the AUTOEXEC.BAT

TouchKit for DOS supports three Sound Modes: **NONE, UP and DOWN** and also supports **Constant Touch** to force driver to stop reporting touch point when the movement is within the range which users can adjust. Therefore, the user can see a stabilized cursor instead of a chattering cursor when users touch the same point with unwanted noise.
Please go to **C:\TouchKit\tpanel.ini** to change the sound mode and constant value.

< tpanel.ini >
Beep = None 1322
Constant = 10

〔promptBegin〕
TouchKit for DOS Version 1.00.02.0904
〔promptEnd〕

Beep = none | down | up [frequency]
Constant = [value]

none: no sound; keep silent
down: beep when you touch down
up: beep when you touch up

value = 0 : disable constant touch function
[value] : cursor keep stabled when touch movement within [value] pixel.

After saving new **tpanel.ini**, users can force the driver to reload the new **tpanel.ini** by executing **C:\TouchKit\>tpanel -r** Other adjustment can be checked by **C:\TouchKit\> tpanel -?**

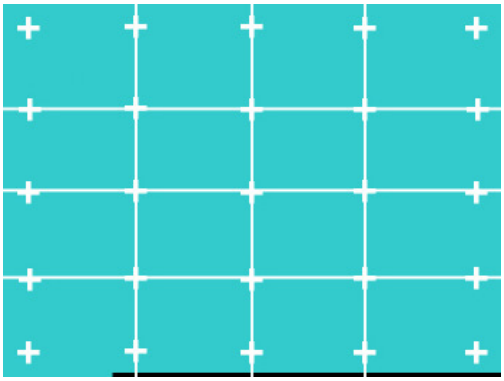
There are three utilities: **TPDRAW**, **TP4PCAL** and **TP25PCAL** to calibrate touch panel. They all support extra command-line arguments such as **-g 1024x768** behind to specify screen resolution on action.

Resolutions supported: (use 640x480 by default)
320x200, 640x200, 640x350, 640x480, 800x600, 1024x768 and 1280x1024

<TPDRAW>

Test the drawing position related to the display screen on panel.

E.g. C:\>tpdraw tkt2



Try to write or draw on it to verify the touch position.

Press **<ESC>** button to exit.

<TP4PCAL>

Correct 4 point locations on screen with the panel.

E.g. C:\>tp4pcal tkt2

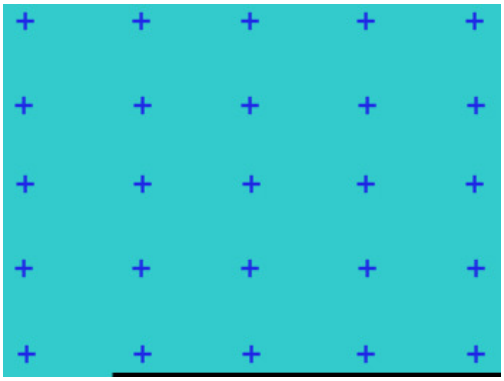


Touch the blinking symbol on panel until beep or stop blinking.

<TP25PCAL>

Correct 25 point locations on screen with the panel.

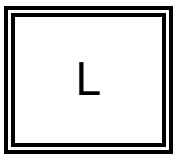
E.g. C:\>tp25pcal tkt2



Touch the blinking symbol on panel until beep or stop blinking.

After the calibration, the new record will overwrite the old one.

Right Button Emulator supports only video mode 3 and must start after the driver being installed; users may edit **C:\>AUTOEXEC.BAT** to toggle it on/off. If it is turned on a button will appear in the right-bottom corner of screen when mouse pointer is turned on.



The label of button, which is **[L]** by default and becomes **[R]** after button being clicked, indicates that next **touching down on panel** will be reported as **left (or right) mouse button click**.

Chapter 4. Uninstalling TouchKit

Follow these steps to uninstall **TouchKit.**

For example:

```
C:\>deltree touchkit
Delete directory "touchkit" and all its subdirectories? [yn] y
Deleting touchkit...
C:\>edit autoexec.bat
```

Then delete the following sentence:

```
set path=%path%;C:\touchkit
rem Add your own serial port configuration here, ex. SET TKT1=3E8 4
TPANEL.EXE
rem Execute "TPANEL /?" to list options
RCLICK.COM
rem Right Button Tool
```

Reboot computer.