



# Perceptive Pixel by Microsoft

System requirements and setup

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# Introduction

In order to ensure complete functionality of the Perceptive Pixel (PPI) by Microsoft 55" and 82" Touch Devices, specific requirements should be met. Each installation requires the use of an external computer system which is typically provided by the customer.

## PPI by Microsoft Touch Device properties

PPI Touch Devices are available in the following models:

	55" Touch Device	82" Touch Device
Native screen resolution	1920x1080 (1080p)	1920x1080 (1080p)
Native vertical refresh	120 Hz	60 Hz
Supported vertical refresh	60, 120 Hz	60 Hz
Video signal format	Digital only, DVI	Digital only, DVI

## Operating the PPI Touch Device

PPI Touch Devices do not have an embedded operating system, and require an external computer system for operation. Unless the PPI Touch Device is shipped from the Portland, Oregon manufacturing facility for temporary demonstration purposes, this external computer system is provided by the customer. Because the touch experience is based on low-latency responsiveness, a lower quality system may impact functionality. Below are the Recommended System Requirements:

### System Requirements

- Windows 8 for best experience
  - Windows 7 is supported but with reduced OS touch features
- Modern mid-range level processor or better
- 2GB system RAM or better
- Display resolution supporting 1920x1080 (55" & 82") or DisplayPort (with adapter)
  - 120Hz refresh rate recommended for best performance (55" only)
- Digital video output to connect to DVI input
  - Dedicated DirectX 11-capable video adapter recommended for best performance
- Dedicated USB 2.0 port (not a shared port via USB hub)

For the most up-to-date system requirements information please visit:  
<http://support.microsoft.com/kb/2819660>.

## Connectivity to PPI Touch Device

Because legacy analog video formats are not supported, external conversion devices must be used to convert analog to DVI digital format. These external units are not provided and recommendations are not available. Please contact your A/V integrator for assistance with these conversions.

The preference is to maintain a digital-based transmission format to ensure the highest quality video signal integrity. Recommended graphics cards support dual-link DVI digital natively.

Client video card output (1920x1080)	Vertical refresh limits resolution at (1920x1080)	PPI 55" Touch Device (60, 120 Hz)	PPI 82" Touch Device (60 Hz)
VGA (analog) default legacy laptop connector	60 Hz	Analog not supported VGA to DVI-D digital video format converter required	Analog not supported VGA to DVI-D digital video format converter required
HDMI	60 Hz	HDMI to DVI adapter or cable	HDMI to DVI adapter or cable
Single-link DVI-D	60 Hz	Single-link DVI-D cable	Single-link DVI-D cable
Dual-link DVI-D	120 Hz	Dual-link DVI-D cable	N/A

## Connecting the cables to the PPI Touch Device

After mounting the PPI Touch Device, connect the cables to the center rear underside as follows:

1. Insert the DVI cable into the matching connectors on the PPI Touch Device and tighten the thumbscrews. (Although not required, you may want to use a #1 head screwdriver to tighten the thumbscrews.)
2. Insert the B-type (square) end of the USB cable into the square USB connector on the PPI Touch Device, from the back of the device, it is located to the left of the DVI connectors. Connect the USB cable with the beveled side of the cable connector facing the back of the device.
3. Insert the optional CAT5 Ethernet cable into the Ethernet port to the left of the B-type USB connector.
4. Insert the female end of the power cable into the power connector, located to the right of the DVI connectors.
5. Ignore the four A-type USB connectors for now. These can be used to charge the optional PPI by Microsoft Active Stylus.

6. Connect the male end of the power cable to the power source. It is recommended that you use a surge protector for the power cable.

## Connecting the cables to the computer

1. Connect the free end of the DVI cable into the DVI connector of your graphics card and tighten the thumbscrews.
2. Connect the free end of the USB cable from the PPI Touch Device into any of the USB 2.0 ports on the computer.
3. Connect the keyboard and mouse to the computer.
4. Connect the female end of the power cable into the power connection on the back of the computer.
5. Connect the male end of the power cable to the power source. It is recommended that you use a surge protector for the power cable. When you power on the system, make sure you first turn on the power switch next to the PPI Touch Device power connector, in addition to pressing the power button on the front side.

## Software setup and operating system customization

Once the operating system is updated with all applicable Windows Updates, and the latest graphics card drivers have been installed, follow the steps outlined below to maximize your PPI Touch Device experience.

### Machine configuration

#### Install the latest PPI Touch Device Driver

All software is available on our support site: <http://support.microsoft.com/gp/perceptive-pixel>.

Select the **Support options and resources** tab, expand the **Find it myself** section, select **Touch Driver for Windows** and follow the subsequent directions. Newer versions of the software will update previous versions.

## Pair the PPI Active Stylus

To use the PPI Active Stylus, you must first pair it with your PPI Touch Device after the PPI Touch Driver is installed on the computer.

1. Holding the stylus away from the screen, press both ends of the stylus button simultaneously and press the stylus tip with your finger and hold until the LED turns blue. Once the stylus LED turns blue, move the stylus to the screen and move on to step 2. This should take at least one second and may take noticeably longer if other touch devices are nearby. Stylus LED colors during the pairing process are as follows: blue – starting pairing; magenta – ending pairing; green – paired.
  - a. **Note:** On some older versions of the Active Stylus, putting the stylus into pairing mode is slightly different, please follow these steps if the above process does not work:

Press the tip of the stylus to the device screen and press both ends of the stylus button simultaneously until the LED turns blue.

2. Keep the tip of the stylus on the device screen but release the buttons once the LED turns blue.
3. The stylus LED should cycle through magenta and then to green. The stylus LED may also turn blue at times during this process.
4. Once the LED turns green the stylus is paired to the device. If the stylus LED turns red, it means it is paired but the battery is low.

Tip: If there are issues in pairing the stylus, reset the stylus by putting it in its charger until the LED on the charger turns orange, indicating that the reset is complete, then wait 30 seconds and try pairing again.

## Calibrate the PPI Touch Device

Typically, calibration is not a necessary step, but is useful if touches register incorrectly on the PPI Touch Device.

1. From the Start screen, select [Open Touch Control Panel](#).
2. On the Sensors tab, select your device in the [Sensor Devices](#) window.
3. Click [Calibrate...](#)
4. First you will calibrate touch by pressing the tip of your finger in the center of the 9 calibration boxes until each box turns green. After calibrating all 9 points and accuracy = excellent, exit the calibration screen.
5. Again open the calibration screen by clicking [Calibrate...](#)
6. This time, using the stylus, carefully touch the stylus tip to the center of each calibration point until each box turns green. After calibrating all 9 points and accuracy = excellent, exit the calibration screen and the [Touch Control Panel](#).

## Increase the size of the on-screen keyboard

1. Before starting, please close all applications and save your data, as this update requires a reboot.
2. Visit <http://support.microsoft.com/kb/2824027> and follow the instructions to receive and install the update.

## Per user configuration

1. Press the **Windows key + Q**, type "pen and touch".
2. Under Settings, click **Pen and Touch** to open the Pen and Touch control panel.
3. Select the **Flicks** tab.
4. Uncheck **Use flicks to perform common actions quickly and easily**. Click **Apply**.
5. Click **OK** to close the Pen and Touch control panel.

## Calibrate ClearType

1. Press the **Windows key + Q**, type "ClearType".
2. Under Settings, click **Adjust ClearType Text** to open the ClearType Text Tuner.
3. Follow the on-screen instructions through the completion of the ClearType Text Tuner.

## Calibrate the display color

1. Press the **Windows key + Q**, type "calibrate display color".
2. Under settings, click **Calibrate display color** to open the Display Color Calibration application.
3. Follow the on-screen instructions through the completion of the Display Color Calibration application.

## Optimize spacing between commands in Office 2013

At the top of Office 2013 applications, select the menu for optimizing spacing between screens and choose **Touch**, as shown in figure 1.

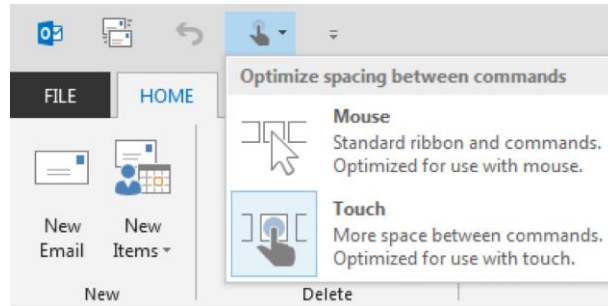


Figure 1. Drop down menu for Office 2013 touch optimization.

## Adjust the text size

1. Press the **Windows key + Q**, type "text size".
2. Under settings, click **Make text size and other items larger or smaller**.
3. Select the **Medium- 125%** radio button under **Change the size of all items**.
4. Click **Apply**.
5. This requires you to sign out and back in so when prompted, click **Sign out now**.

## Support

In the event that your device exhibits issues, please contact the PPI support team via <http://support.microsoft.com/gp/perceptive-pixel> or by calling 1 (800) 642-7676.

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