

# ViewSonic®



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## **PJ-vTouch-50s**

### **Projector Interactive Kits**

### **User Guide**

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**IMPORTANT:** Please read this User Guide to obtain important information on installing and using your product in a safe manner, as well as registering your product for future service. Warranty information contained in this User Guide will describe your limited coverage from ViewSonic Corporation, which is also found on our web site at <http://www.viewsonic.com> in English, or in specific languages using the Regional selection box in the upper right corner of our website. "Antes de operar su equipo lea cuidadosamente las instrucciones en este manual"

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Model No. VS16953

## **Thank you for choosing ViewSonic**

As a world leading provider of visual solutions, ViewSonic is dedicated to exceeding the world's expectations for technological evolution, innovation, and simplicity. At ViewSonic, we believe that our products have the potential to make a positive impact in the world, and we are confident that the ViewSonic product you have chosen will serve you well.

Once again, thank you for choosing ViewSonic !



# Compliance Information

## Please read before proceeding

- Use only the batteries and power adapter provided by the manufacturer. The use of unauthorized accessories may void your warranty.
- Do not store your device in temperatures higher than 50°C (122°F).
- The operating temperature for this device is from 0°C (32°F) to 35°C (95°F).

## FCC Notice

The following statement applies to all products that have received FCC approval. Applicable products bear the FCC logo, and/or an FCC ID in the format FCC ID: GSS-VS15180 on the product label. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. This mobile device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The antenna(s) used for this transmitter must not be colocated or operating in conjunction with any other antenna or transmitter.

The device was tested and complies to measurement standards and procedures specified in FCC OET Bulletin 65, Supplement C

## FCC SAR Information

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## CE Conformity for European Countries

**CE** The device complies with the EMC Directive 2014/30/EU and Low Voltage Directive 2014/35/EU, R&TTE Directive 1999/5/EC.

## Following information is only for EU-member states:

The mark shown to the right is in compliance with the Waste Electrical and Electronic Equipment Directive 2012/19/EU (WEEE).



The mark indicates the requirement NOT to dispose the equipment as unsorted municipal waste, but use the return and collection systems according to local law.

If the batteries, accumulators and button cells included with this equipment, display the chemical symbol Hg, Cd, or Pb, then it means that the battery has a heavy metal content of more than 0.0005% Mercury, or more than 0.002% Cadmium, or more than 0.004% Lead.



## European Union Regulatory Conformance

The equipment complies with the RF Exposure Requirement 1999/519/EC, Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0-300 GHz). This equipment meets the following conformance standards: EN301489-1, EN301489-17, EN55032/24, EN60950-1, EN300328, EN301893.

We, hereby, declare that this Wi-Fi radio is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

## Declaration of RoHS2 Compliance

This product has been designed and manufactured in compliance with Directive 2011/65/EU of the European Parliament and the Council on restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS2 Directive) and is deemed to comply with the maximum concentration values issued by the European Technical Adaptation Committee (TAC) as shown below:

Substance	Proposed Maximum Concentration	Actual Concentration
Lead (Pb)	0.1%	< 0.1%
Mercury (Hg)	0.1%	< 0.1%
Cadmium (Cd)	0.01%	< 0.01%
Hexavalent Chromium (Cr <sup>6+</sup> )	0.1%	< 0.1%
Polybrominated biphenyls (PBB)	0.1%	< 0.1%
Polybrominated diphenyl ethers (PBDE)	0.1%	< 0.1%

Certain components of products as stated above are exempted under the Annex III of the RoHS2 Directives as noted below:

Examples of exempted components are:

1. Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp):
  - (1) Short length ( $\leq 500$  mm): maximum 3.5 mg per lamp.
  - (2) Medium length ( $> 500$  mm and  $\leq 1,500$  mm): maximum 5 mg per lamp.
  - (3) Long length ( $> 1,500$  mm): maximum 13 mg per lamp.
2. Lead in glass of cathode ray tubes.
3. Lead in glass of fluorescent tubes not exceeding 0.2% by weight.
4. Lead as an alloying element in aluminium containing up to 0.4% lead by weight.
5. Copper alloy containing up to 4% lead by weight.
6. Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead).
7. Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound.

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In the interest of continuing product improvement, ViewSonic® Corporation reserves the right to change product specifications without notice. Information in this document may change without notice.

No part of this document may be copied, reproduced, or transmitted by any means, for any purpose without prior written permission from ViewSonic® Corporation.

## Product Registration

To meet your future needs, and to receive any additional product information as it becomes available, please register your product on the Internet at: [www.viewsonic.com](http://www.viewsonic.com).

### For Your Records

<b>Product Name:</b>	PJ-vTouch-50s Projector Interactive Kit
<b>Model Number:</b>	VS16953
<b>Document Number:</b>	PJ-vTouch-50s_UG_ENG Rev. 1A 07-14-17
<b>Serial Number:</b>	_____
<b>Purchase Date:</b>	_____

### Product disposal at end of product life

ViewSonic respects the environment and is committed to working and living green. Thank you for being part of Smarter, Greener Computing. Please visit ViewSonic website to learn more.

USA & Canada: <http://www.viewsonic.com/company/green/recycle-program/>

Europe: <http://www.viewsoniceurope.com/eu/support/call-desk/>

Taiwan: <http://recycle.epa.gov.tw/recycle/index2.aspx>

# Contents

## Compliance Information

Please read before proceeding .....	i
FCC Notice .....	i
FCC SAR Information .....	ii
CE Conformity for European Countries .....	ii
Following information is only for EU-member states: .....	ii
European Union Regulatory Conformance .....	ii
Declaration of RoHS2 Compliance .....	iii

## Copyright Information

Product Registration .....	iv
For Your Records .....	iv

## Before Setting Up

### Packaged Items

IR Pen Battery Installation .....	2
Notes for Using IR Pen .....	2

### Setup Procedure

Laser Module Installation .....	3
Connect Computer to Projector .....	4
Connect Laser Module to Projector .....	5
Adjust Laser Module .....	6
PJ-vTouch-50S Software Installation .....	8

### Startup Calibration Software

Calibration Menu Display .....	10
Automatic Calibration .....	14
Manual Calibration .....	14

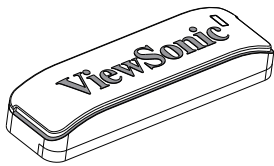
## Troubleshooting Guide

## Customer Support

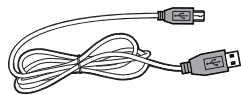
# Before Setting Up

- Install the projector, white board, and laser module in a location away from bright light sources such as windows with exposure to direct sunlight.
- Choose a location to install the projector, white board, and laser module away from other electrical equipment to avoid interference.
- Make sure your box contains all the items listed in the packaged items list. If any items are missing, please contact your dealer.

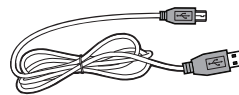
# Packaged Items



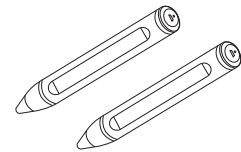
Laser Module unit  
x 1



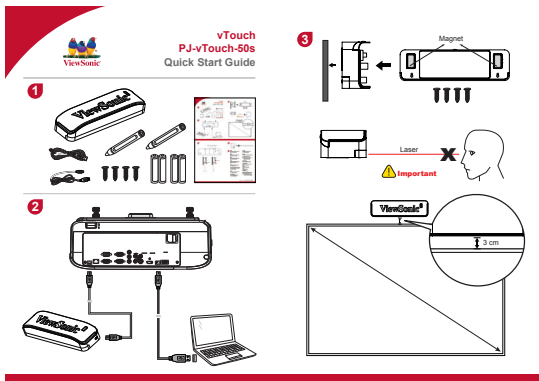
Mini USB (6m) x 1



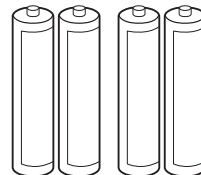
Mini USB (2m) x 1



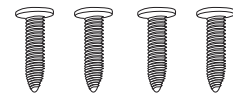
IR Pen x 2



Quick start guide



Battery



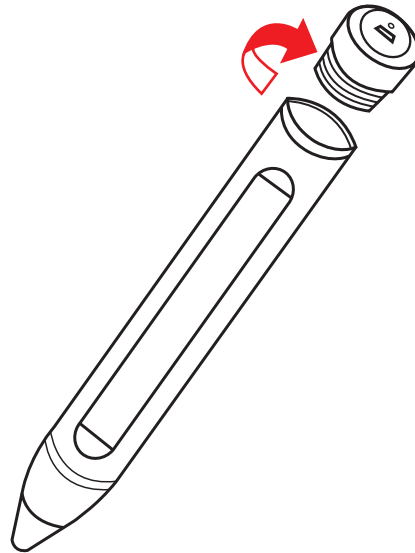
Screws



## IR Pen Battery Installation

IR Pen uses two AAA batteries.

1. Twist off the top cover of the pen.
2. Insert two AAA batteries into the pen.
3. Twist the top cover of the pen back on.



Replace the battery when the pen begins to function incorrectly.

## Notes for Using IR Pen

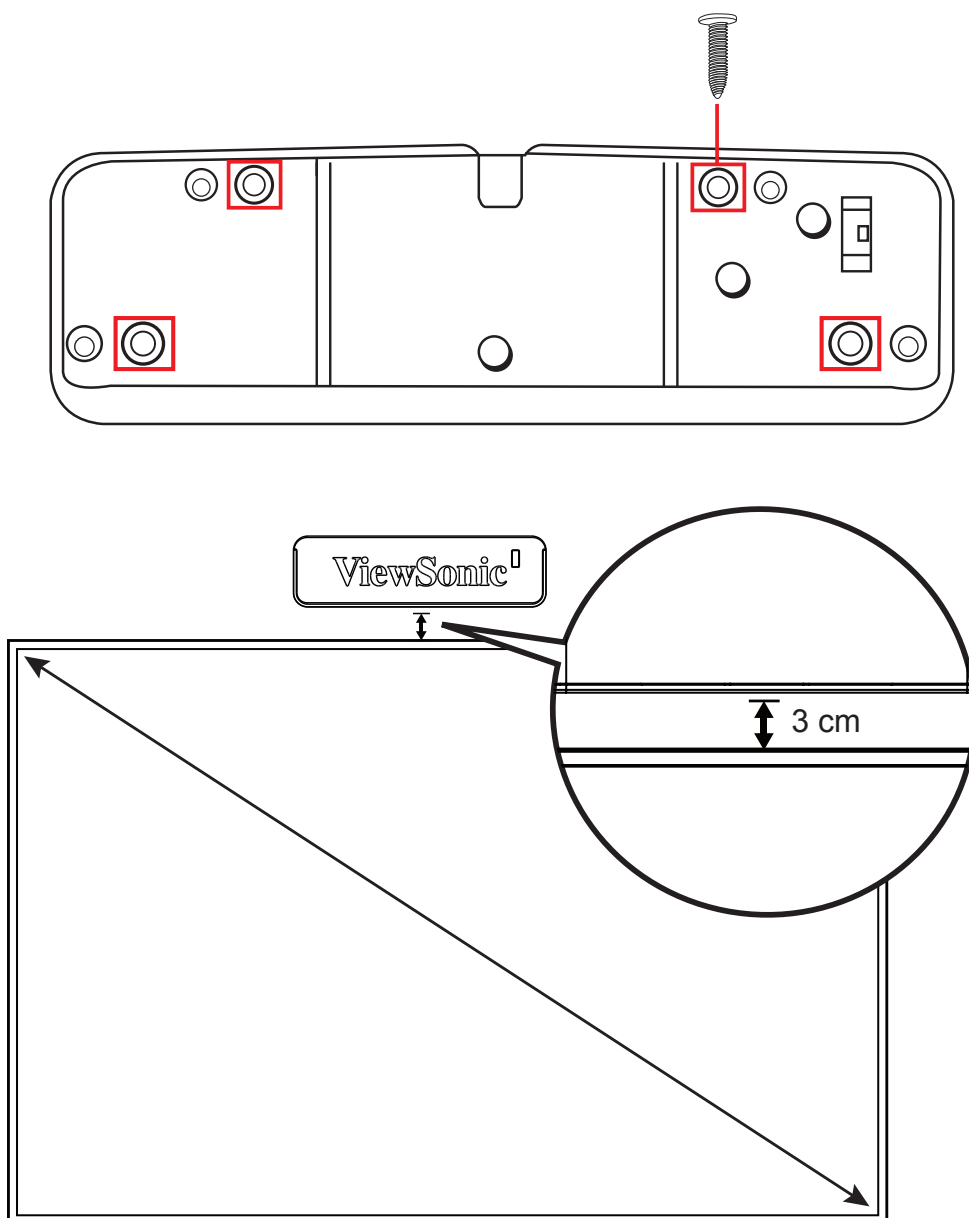
- Improper usage of the IR Pen may lead to malfunction; please avoid dropping or disassembling the IR Pen.
- If the IR Pen comes in contact with water or any other type of liquid, switch the IR Pen off immediately and wipe it dry.
- Avoid exposing the IR Pen to high temperatures or humidity.

# Setup Procedure

## Laser Module Installation

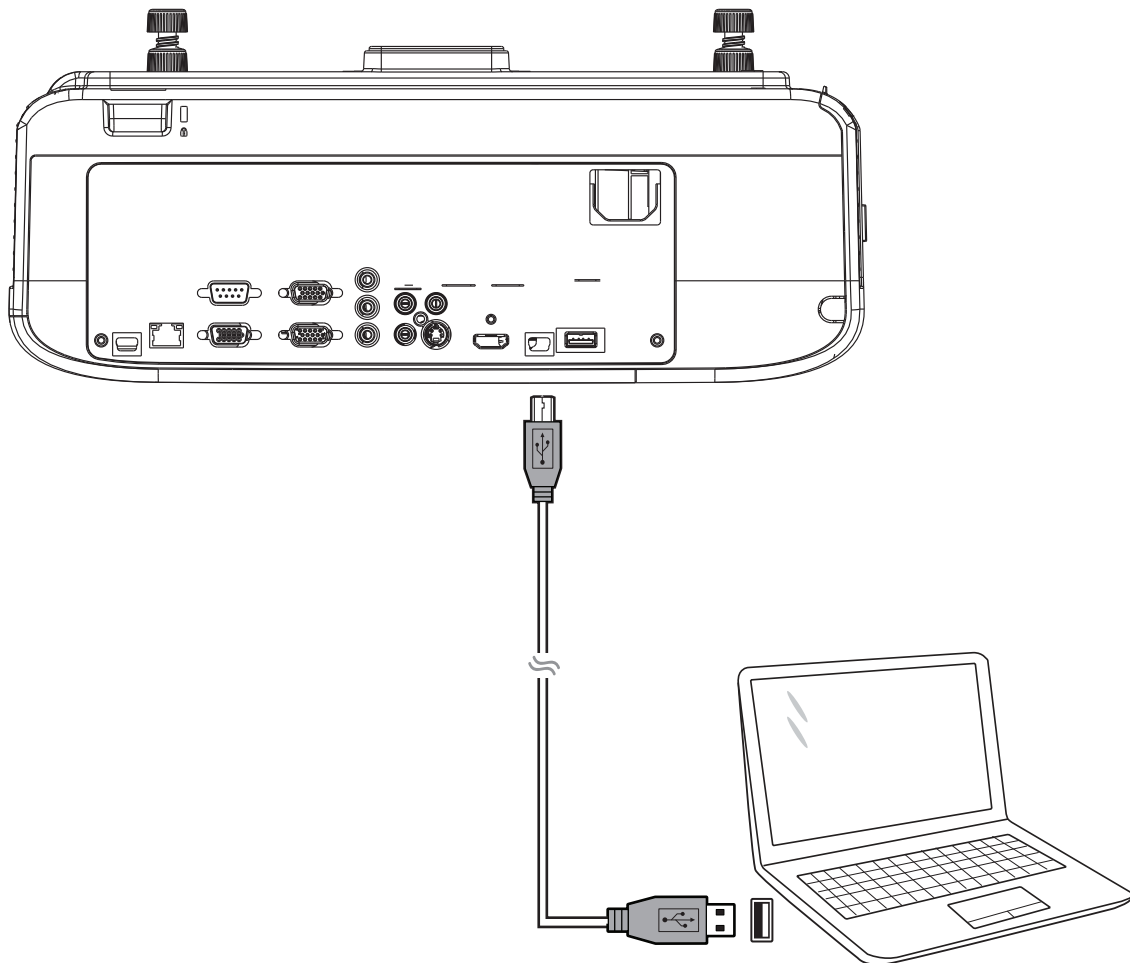
Install the Laser module approximately 3~5 centimeters above the projection surface and align it with the center of the image. This product is equipped with magnets that allow it to be attached to a whiteboard directly. If the module needs to be installed in a location where magnets cannot be used to attach it, it can be fixed into place using screws.

**Notice:** For best results, do not install the module more than 5 centimeters higher than the projection surface.



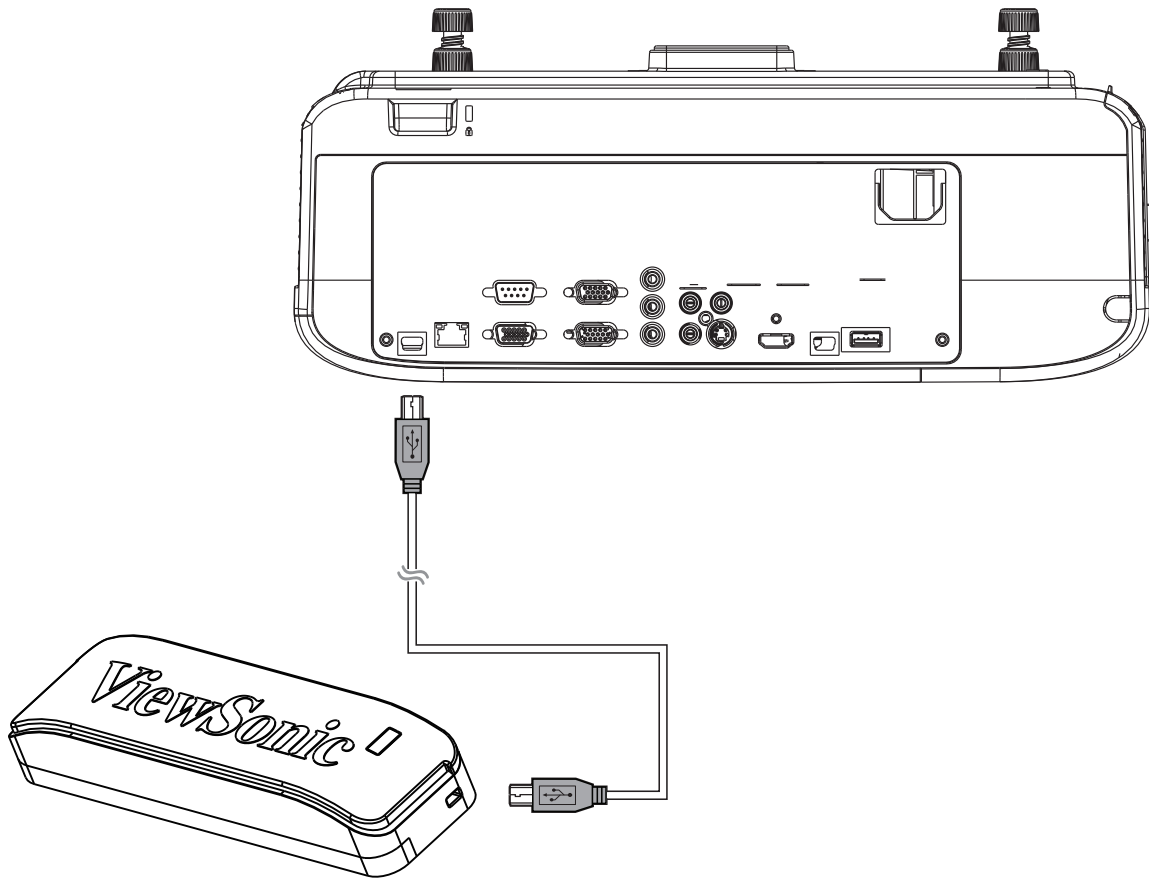
## Connect Computer to Projector

Connect a computer to the projector via a VGA or HDMI cable for image display. Use the 6m standard USB cable to connect the computer (USB) and projector (mini USB) for positioning and focus adjustment.



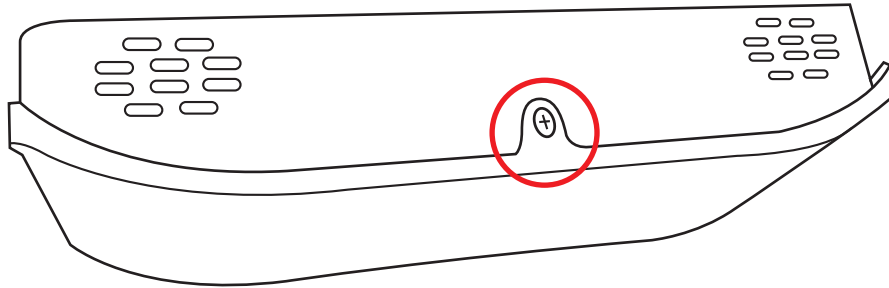
## Connect Laser Module to Projector

Connect the Laser Module (mini USB) to the projector (mini USB) using the included 2m USB cable. The indicator light will turn red once the Laser Module is working correctly; if the indicator light has not turned red, this means that the Laser Module is still not connected.

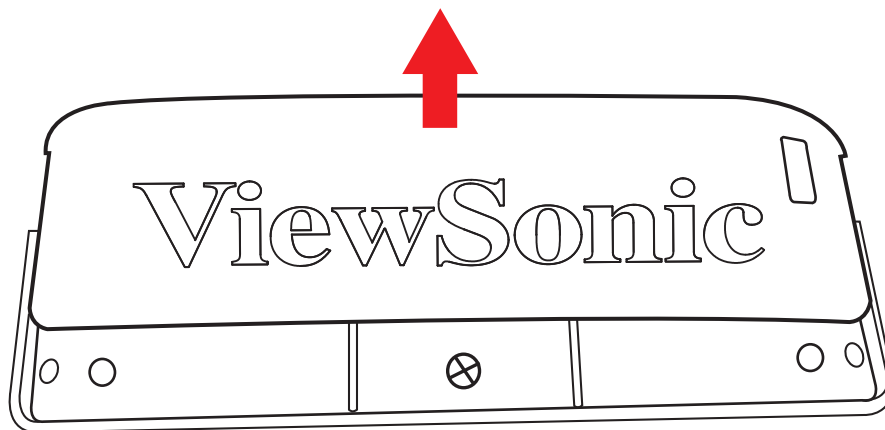


## Adjust Laser Module

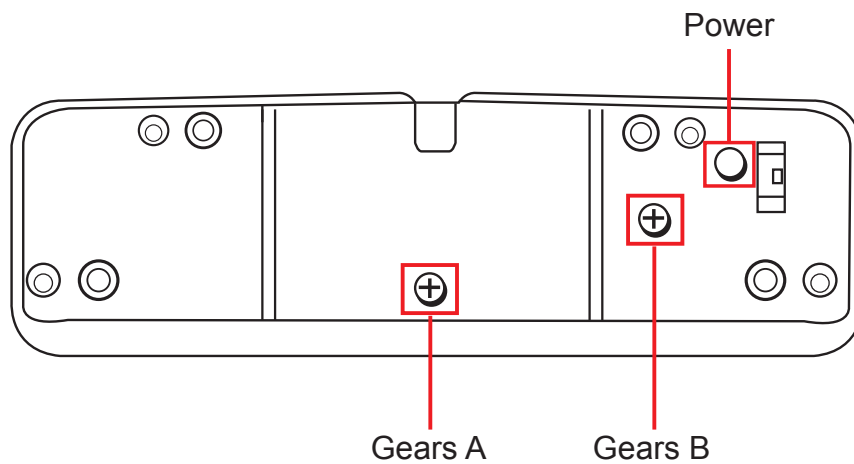
1. Loosen the screw on the laser module



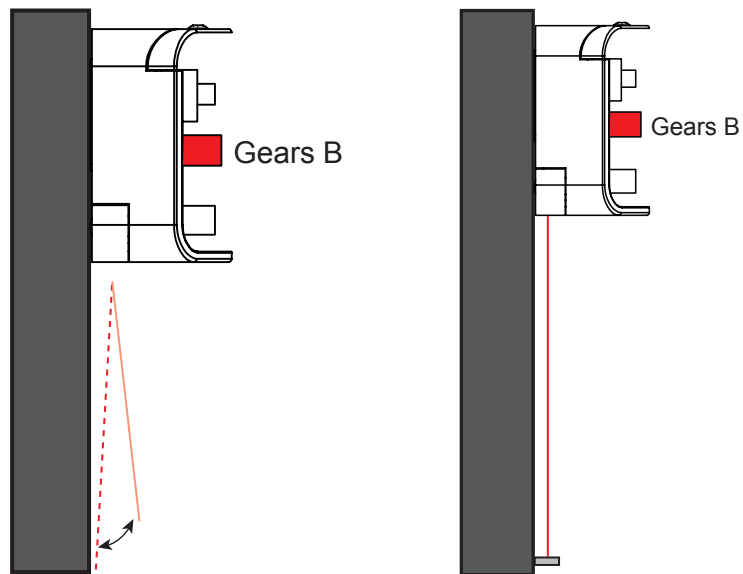
2. Slide the top cover off of the laser module.



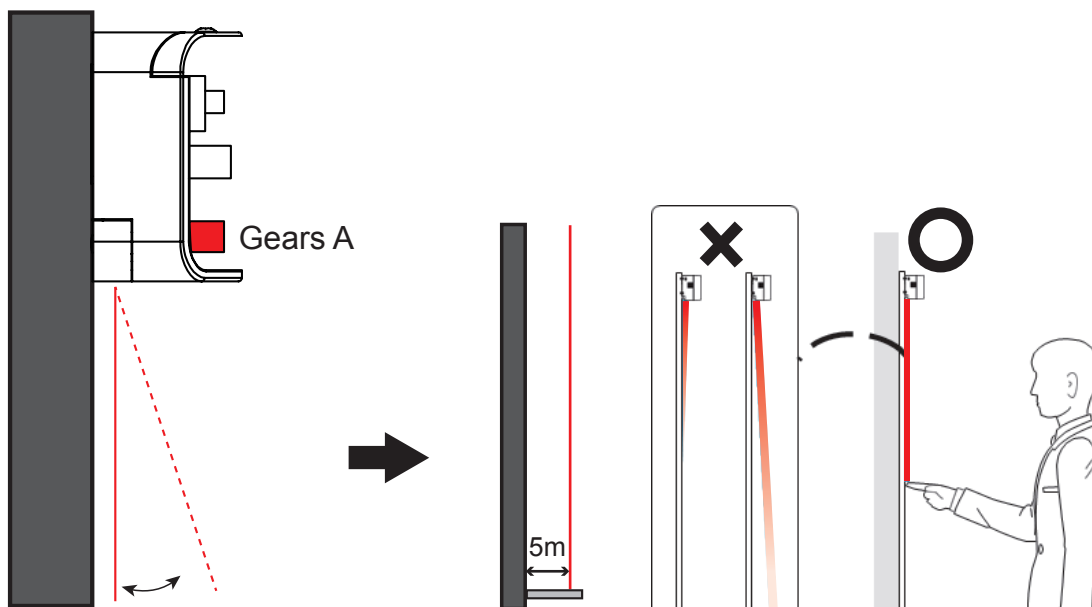
3. Press the Laser button to switch the module on. A horizontal beam of laser light will appear to be used for calibration.



4. Check the distance between the whiteboard and the laser light. Use Gear B to adjust the distance between the laser beam and the whiteboard to ensure that the two are parallel.



5. Use Gear A to adjust the laser beam until the laser beam and the whiteboard are approximately 5mm apart.

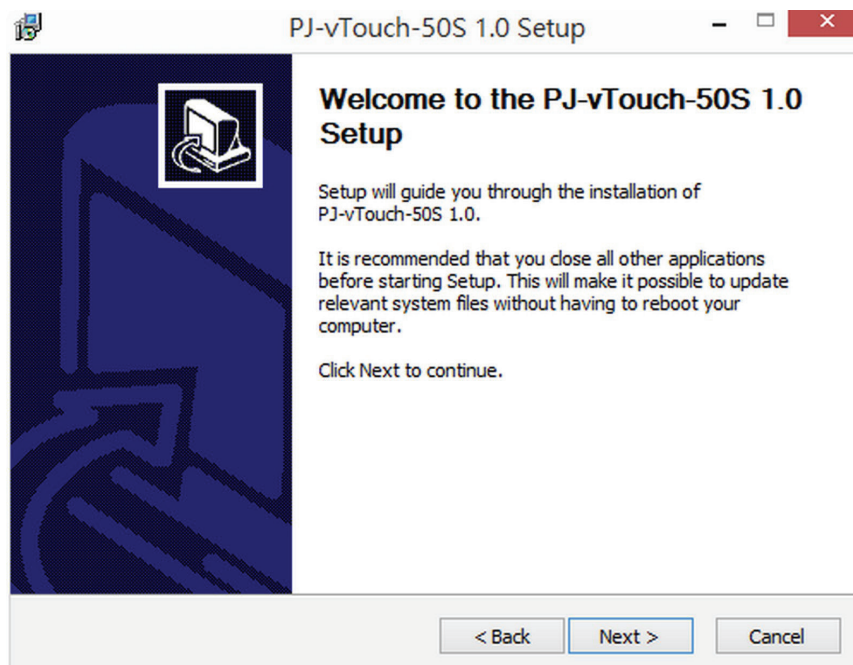
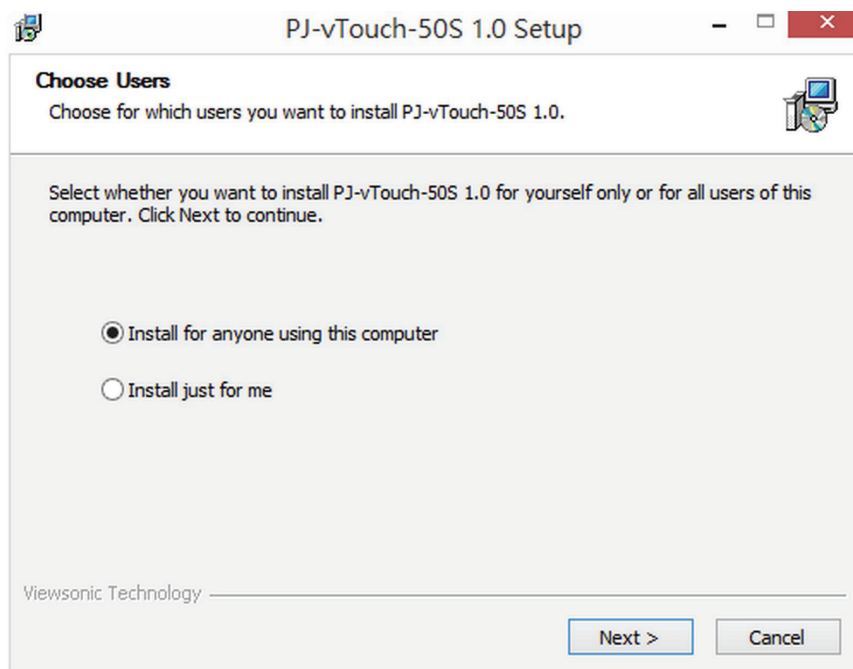


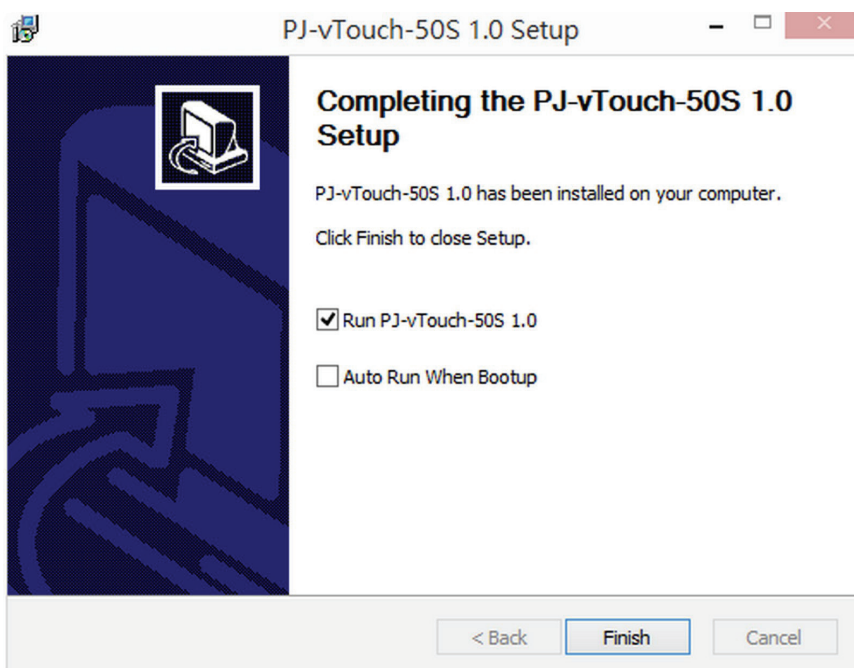
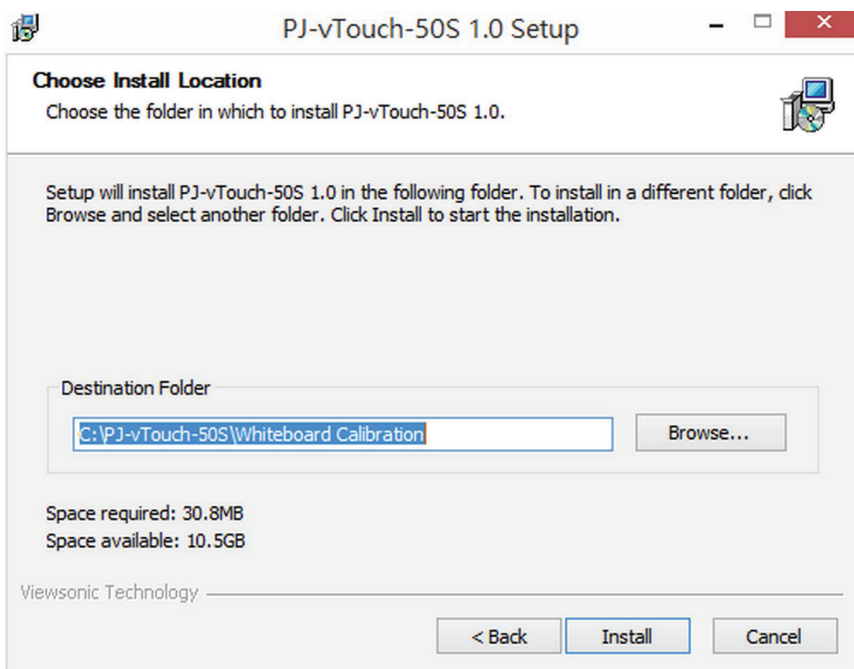
6. Turn the laser button off once calibration has been completed.

# PJ-vTouch-50S Software Installation

OS required: Windows 7, Windows 8.1 or Windows 10.

1. Download the calibration software driver that corresponds to your projector via the following website links.
  - PS750W: <http://vsweb.us/ps750w>
  - PS750X: <http://vsweb.us/ps750x>
  - PS750HD: <http://vsweb.us/ps750hd>
2. Double click “PJ-vTouch-50S.exe” and follow the instructions below to complete the installation.





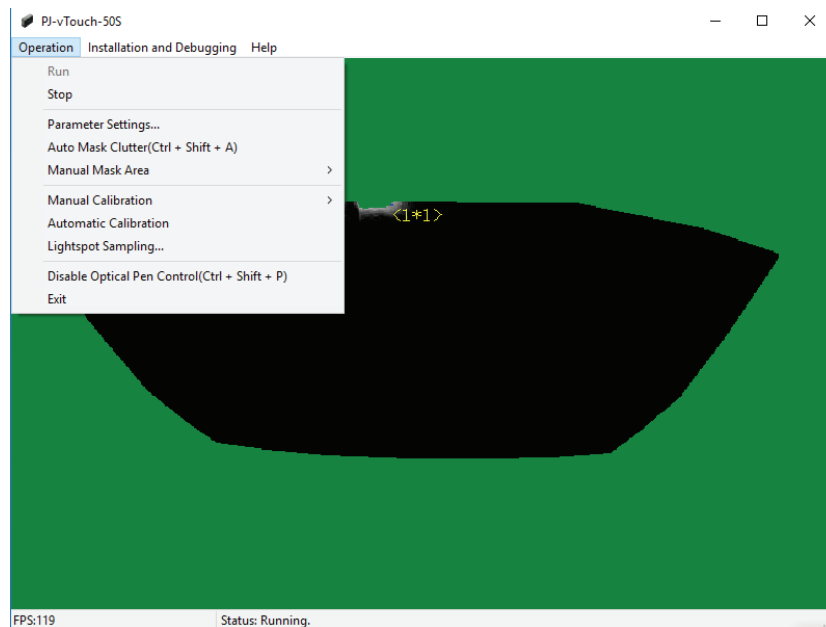


# Startup Calibration Software

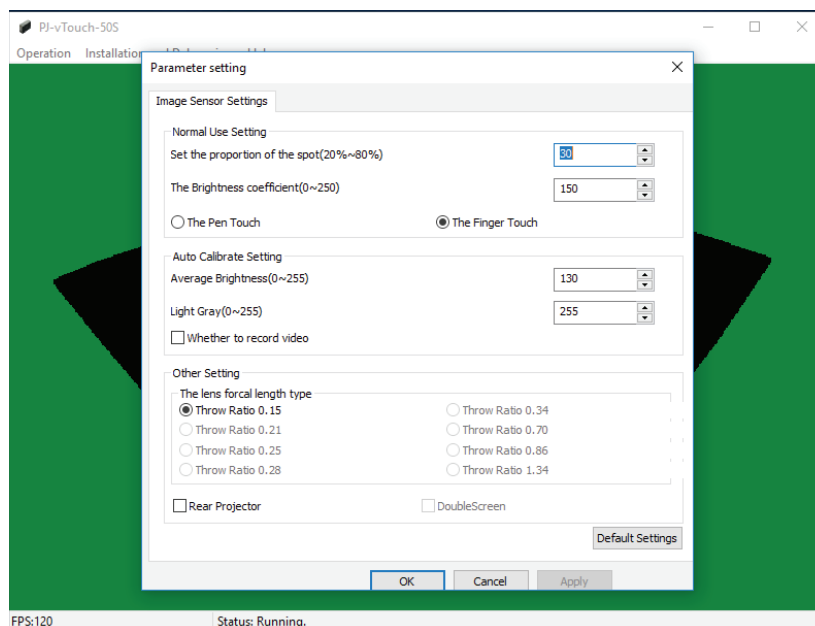
Double click the IWB icon to run PJ-vTouch-50S software

## Calibration Menu Display

### Operation Menu List



1. Run: Turn on the camera
2. Stop: Turn the camera off
3. Parameter Settings: Image sensor setting



### 3.1 Normal Use Setting

- Set the proportion of the spot (20%~80%): Refers to the sensitivity of touch reaction. The larger the value is, the lower the sensitivity becomes.
- The brightness coefficient (0~250): Refers to the sensitivity of camera CCD sensor. The larger the value is, the higher the sensitive becomes.
- Pen touch: Only IR pens will be recognized by the touch screen.
- Finger touch: IR pens and fingers will both be recognized by the touch screen.

**Note:** The default values for proportion of the spot and brightness coefficient are different under pen touch mode and finger touch mode. Users can adjust these values according to their preferences.

### 3.2 Auto Calibrate Setting

- Average brightness (0~255): Adjusts the brightness of camera images. Refers to the sensor's measurement of overall brightness from the "black and white checkerboard" used during the automatic calibration process. The larger the value is, the brighter the image will be.
- Light gray (0~255): Adjusts the contrast of camera images. Refers to the overall contrast of the "black and white checkerboard" used by the calibration software during the automatic calibration process. The larger the value is, the greater the contrast between the black area and the white area in the "black and white checkerboard" will be.
- Recording video: Record the auto calibration progress and save the file. In the event that auto-calibration fails, users can provide this recorded video to customer service.

### 3.3 Other Setting

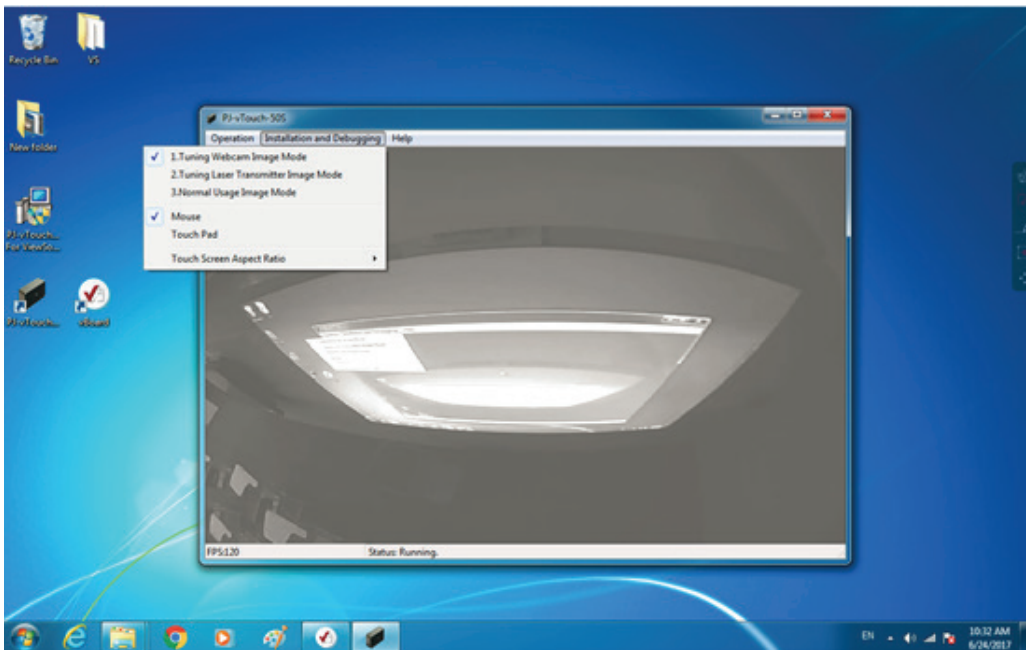
- Focal length: For PS750 series, the default throw ratio is 0.15:1.
  - Rear projector: If your projector is a rear projector, please choose this setting. (Not for PS750 series)
4. Auto Mask Clutter (Ctrl + Shift + A): The program will mask all interfering light automatically. When the single touch (mouse) is functioning abnormally, Auto Mask Clutter will mask all interfering light.
  5. Manual Mask Area: Click Manual Mask Area when the curser is functioning abnormally. When the single touch (mouse) is functioning abnormally, Manual Mask Area will mask interference spots.
  6. Manual Calibration: Execute calibration manually when Automatic Calibration fails or the cursor location and IR pen/finger position are not aligned.
  7. Automatic Calibration: Execute calibration automatically.

8. Lightspot Sampling: Lightspot sampling collection is to be performed after calibration has been completed. Use finger or IR pen to touch the red square until it turns green; repeat this until the process has been completed. Once the cursor is working smoothly, execute Lightspot Sampling.



9. Disable Optical Pen Control (Ctrl + Shift + p): Enable and disable the touch function.
10. 10.Exit: Exit the OSD

## Installation and Debugging




1. Tuning Webcam Image Mode: Select this mode before calibration to see the screen more clearly and make sure that the camera covers the entire screen image.
2. Tuning Laser Transmitter Image Mode: Detect the sensitivity of lightspots. Emitter emits an invisible laser film 5mm above the whiteboard. The size of lightspot should be over 3\*3mm.
3. Normal Usage Image Mode: After calibration, all operations can be done by finger instead of the mouse.
4. Mouse: Only supports single touch.
5. Touch Pad: Supports up to 10-point simultaneous touch.
6. Touch Screen Aspect Ratio: Auto / 4:3/ 16:10/ 16:9. This setting needs to be the same as the signal output resolution.

## Automatic Calibration

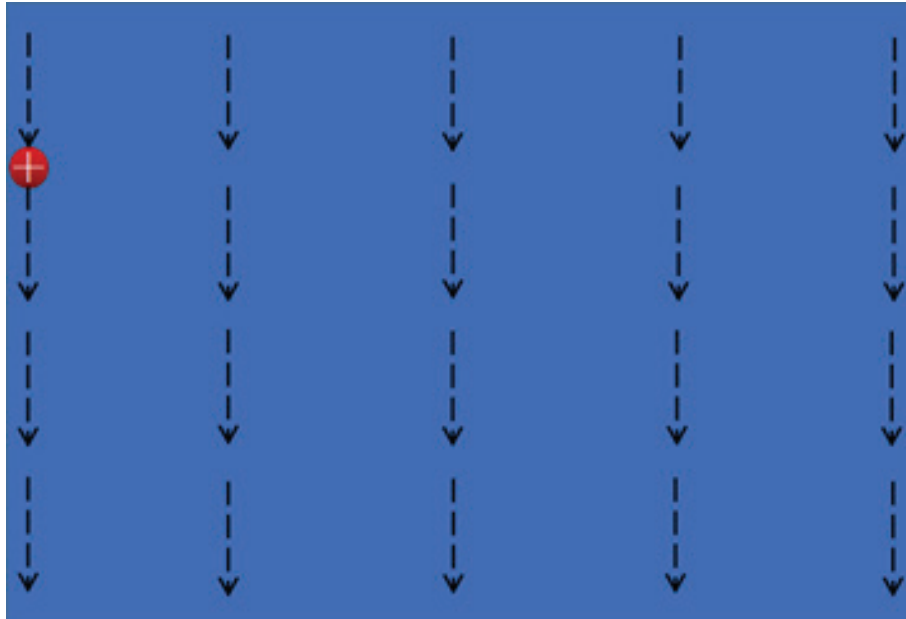
Click “Automatic Calibration” from operation menu. The image will be calibrated automatically; the “Auto Calibrate Succeed” message will appear once Automatic Calibration has been completed; if Automatic Calibration has failed, the “Auto Calibrate Failed” message will appear. In this event, please refer to the Troubleshooting Guide.

## Manual Calibration

1. Touch the four corners of the projection screen with your finger or the IR Pen. Make sure the light spots are positioned correctly on the four corners of screen and that the size of each spot is over 3x3 pixels.
2. Select “Manual Calibration” (25 dots/36 dots) from operation menu. The projected image on the screen will switch to the Manual Calibration screen and the  icon will be displayed at the top left of the screen.



3. Press 25 or 36 calibration dots on the screen using your finger or the IR Pen and press the cross in the middle of each dot.



4. Once calibration has been completed successfully, the calibration software will minimize onto the task tray; if the Manual Calibration has failed, please refer to Troubleshooting Guide.

# Troubleshooting Guide

## 1. Finger touch operation is not working properly

- (1) While using the calibration software, if the “Not a valid USB Key for finger touch whiteboard” error message appears, please follow these steps: Open “Device Management” and click the “Image Device” option. Check for a hardware device named “TouchScreen Device”.
- (2) If you can recognize this device, please contact your dealer.
- (3) If you cannot recognize this device, please check the connections for the projector camera and the computer.
- (4) If there is no problem with the connection, please reconnect to another USB port.

## 2. After auto-calibration, the cursor’s position does not align with finger position

Adjust the position of the laser module, Gear A and Gear B, and then do the auto-calibration again.

## 3. Automatic Calibration process failure

- (1) Select “Tuning Webcam Image Mode” from the “Installation and Debugging” menu. Check if the webcam image is being displayable on the dazzling screen, white screen, black screen, and flickering screen.
- (2) If the webcam image is not being displayed properly, please contact your dealer.
- (3) If the webcam image status is showing up as normal, please make sure there are no objects between the projection screen and the projector camera during the Automatic Calibration process.
- (4) Check that the IR-CUT switcher function is working properly.
- (5) Adjust the image brightness accordingly and retry the Automatic Calibration.
- (6) Ensure that there isn’t any strong ambient light interfering with the projector camera or screen.

## 4. Inaccurate Calibration

- (1) Check that the Laser Module installation and adjustments have been done correctly.
- (2) Redo Automatic Calibration.
- (3) Redo Manual Calibration.

## 5. Manual Calibration failure

- (1) If light spots are not shown in the four corners of projected screen after “Auto Mask Clutter”, manually select “Mask Bitmap Edit” --> “Erase Mask Area” and erase the area where there are no light spots being displayed until they appear.
- (2) Check that there are no other light spots on the projection screen while in the “Auto Mask Clutter” process.
- (3) The size of the light spot must be bigger than 3x3 pixels. If not, please redo the manual calibration process with the IR Pen.

# Customer Support

For technical support or product service, see the table below or contact your reseller.

**Note :** You will need the product serial number.

Country/Region	Website	T= Telephone C = CHAT ONLINE	Email
Australia New Zealand	www.viewsonic.com.au	AUS= 1800 880 818 NZ= 0800 008 822	service@au.viewsonic.com
Canada	www.viewsonic.com	T= 1-866-463-4775	service.ca@viewsonic.com
Europe	www.viewsoniceurope.com	<a href="http://www.viewsoniceurope.com/eu/support/call-desk/">http://www.viewsoniceurope.com/eu/support/call-desk/</a>	
Hong Kong	www.hk.viewsonic.com	T= 852 3102 2900	service@hk.viewsonic.com
India	www.in.viewsonic.com	T= 1800 419 0959	service@in.viewsonic.com
Korea	ap.viewsonic.com/kr/	T= 080 333 2131	service@kr.viewsonic.com
Latin America (Argentina)	www.viewsonic.com/la/	C= <a href="http://www.viewsonic.com/la/soporte/servicio-tecnico">http://www.viewsonic.com/la/soporte/servicio-tecnico</a>	soporte@viewsonic.com
Latin America (Chile)	www.viewsonic.com/la/	C= <a href="http://www.viewsonic.com/la/soporte/servicio-tecnico">http://www.viewsonic.com/la/soporte/servicio-tecnico</a>	soporte@viewsonic.com
Latin America (Columbia)	www.viewsonic.com/la/	C= <a href="http://www.viewsonic.com/la/soporte/servicio-tecnico">http://www.viewsonic.com/la/soporte/servicio-tecnico</a>	soporte@viewsonic.com
Latin America (Mexico)	www.viewsonic.com/la/	C= <a href="http://www.viewsonic.com/la/soporte/servicio-tecnico">http://www.viewsonic.com/la/soporte/servicio-tecnico</a>	soporte@viewsonic.com
Nexus Hightech Solutions, Cincinnati #40 Desp. 1 Col. De los Deportes Mexico D.F. Tel: 55) 6547-6454 55)6547-6484 Other places please refer to <a href="http://www.viewsonic.com/la/soporte/servicio-tecnico#mexico">http://www.viewsonic.com/la/soporte/servicio-tecnico#mexico</a>			
Latin America (Peru)	www.viewsonic.com/la/	C= <a href="http://www.viewsonic.com/la/soporte/servicio-tecnico">http://www.viewsonic.com/la/soporte/servicio-tecnico</a>	soporte@viewsonic.com
Macau	www.hk.viewsonic.com	T= 853 2870 0303	service@hk.viewsonic.com
Middle East	ap.viewsonic.com/me/	Contact your reseller	service@ap.viewsonic.com
Puerto Rico & Virgin Islands	www.viewsonic.com	T= 1-800-688-6688 (English) C = <a href="http://www.viewsonic.com/la/soporte/servicio-tecnico">http://www.viewsonic.com/la/soporte/servicio-tecnico</a>	service.us@viewsonic.com soporte@viewsonic.com
Singapore/ Malaysia/ Thailand	www.viewsonic.com.sg	T= 65 6461 6044	service@sg.viewsonic.com
South Africa	ap.viewsonic.com/za/	Contact your reseller	service@ap.viewsonic.com
United States	www.viewsonic.com	T = 1-800-688-6688	service.us@viewsonic.com





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