Boxlight P5 WX31NST
Interactive Calibration and Troubleshooting
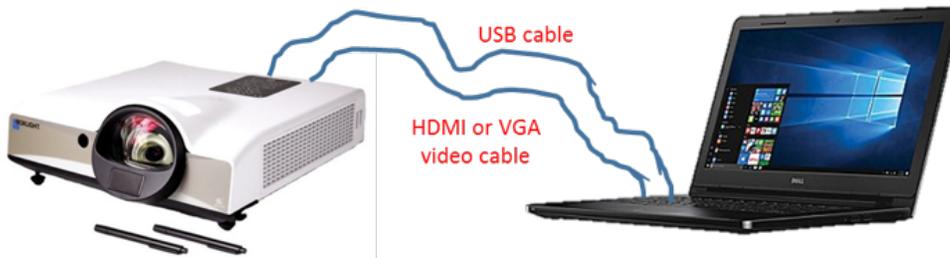
Materials Needed (Minimum)

Windows 7 or higher; Mac Leopard (10.5) or higher	USB 2.0 rated cable
P5 WX31nst projector	SP5 driver software version v5.0.0005
VGA or HDMI cable	

CALIBRATION

Connections:

Connect HDMI or VGA cable between computer and projector.
Connect USB cable between projector and computer.

Calibration Process:

1. Turn on projector and make sure it is in the correct source input (HDMI or VGA).
2. Start the SP5 driver—this should be installed and automatically start when the computer boots up. The SP5 driver icon will look red if not connected and green if connected by USB.

3. Click the SP5 icon and select calibration. This will turn the screen white and display a calibration target in the upper left corner of the screen as shown to the right.
4. Use the LightPen to touch this first target on the projected image to start the process. Continue to likewise touch the remaining three targets.
5. Once all four targets have been touched, the system will take a few seconds to interpolate the data, then will be ready to use.
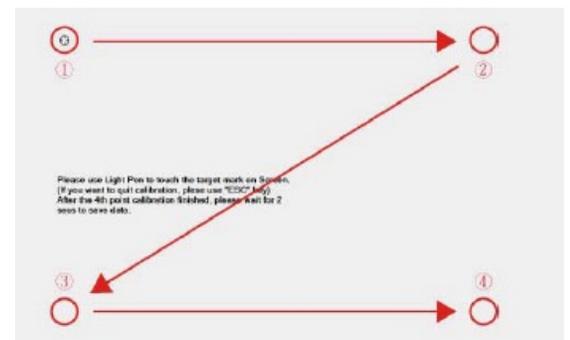
# Boxlight P5 WX31NST Interactive Calibration and Troubleshooting

TROUBLESHOOTING

SP5 driver icon is red and not green.
1. Verify that the USB cable is properly seated at both the projector and computer ends.
2. Try a different USB cable.
3. Shut down the SP5 Driver Software and restart the computer.

Cannot calibrate:
1. Are the projector and computer connected by verifying the SP5 icon is green (see above).
2. Is the pen on? Touch the tip of the pen—the tip will light up if the pen is on. Press the end button to turn on/off.
3. Check that there are no external light on or near the screen or near it (light from a window, desk lamp, Christmas lights near/around the screen). Remove or turn these off as the light will affect the performance of the system.
4. Ensure you are not blocking the projector's internal IR tracking camera from "seeing" the screen. The camera is located as shown to the right.
5. If a bright spot is visible within the black field, please work to remove/block the light.

CMOS Sensor
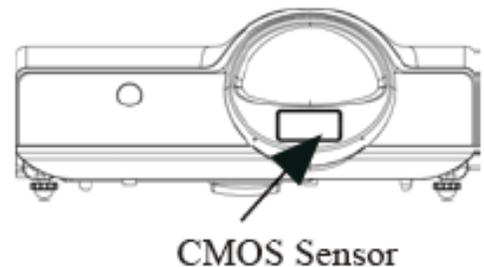
Calibration is not linear. Calibration is good in the center of the screen, but declines as you travel to the edge of the screen.
1. Verify that the computer's resolution it is set to 1280x800 or the closest option available.
2. Make sure the projector is set to 16:10 display mode in the projector's menu (Advanced/Resize).
3. Re-calibrate and pay close attention to getting as close the center of each target as possible.
4. Ensure that no other light sources are interfering with the calibration process.
   a. Click the SP5 icon and select Preview to open a window showing what the camera of the projector is "seeing."
   b. This window should be uniformly black, indicating no outside IR sources being detected.
   c. If a bright spot is visible within the black field, please work to remove/block the light.
5. If you have a Windows PC with a touch screen, please do a touch screen calibration in Windows. This will help ensure the computer knows the correct screen points.
   a. Go to Control Panel and select Hardware and Sound.
   b. Scroll down and select PC tablet settings. This will bring up a dialog box.
   c. Select Setup and touch the computer screen to designate it as a touch screen.
   d. Now touch Calibrate to display the touch calibration points (either 4 or 6 depending on OS version).
   e. Touch your finger to each calibration point on the PC screen (not the projection surface, the PC's own display).

Cursor is jumping with no LightPen interaction:
1. Ensure there are no other light sources that may be interfering (see above).
2. Exit the SP5 driver and restart.

This message appears: "Strong lighting in the environment may cause light pen to stop functioning normally."
1. If this window is shown automatically after you start the LightPen software, it is because the ambient light is too strong.
2. The ambient light is shown as white in the window, but should normally be uniformly black.
3. If a bright spot is visible within the black field, please work to remove/block the light.

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**Interactivity is spotty and sometimes not responsive.**
1. Check the way you are holding the pen. The system is line-of-sight between the tip of the pen and the camera, and as such if your hand is holding the pen and blocking the camera from seeing the tip, the system cannot recognize the operation of the pen.
2. Hold pen as shown below.

Keep fingers away from tip

Do not write in shadowed areas   Hold LightPen at 25° or greater angle
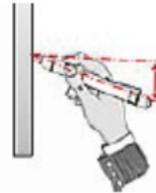
3. Verify the pen's batteries are working.
4. Test using a different pen to verify the pen is working properly.