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Cat® Simulators

Large Wheel Loader Controls Calibration



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Initial Steps

1. Connect all Large Wheel Loader simulator components to your computer as outlined in the “Hardware Assembly ” on page 6.
2. Install the Large Wheel Loader Simulator Software on your computer.
3. For Windows XP or Vista Operating Systems: From your Windows Desktop, Click “Start” – “Control Panel” – “Game Controllers.”
4. Three identical entries will appear in the “Game Controls” Window:
 - A. S/A Combo Sim Controller
 - B. S/A Combo Sim Controller
 - C. S/A Combo Sim Controller – will not use these calibration functions.

Note: For Windows 7 Operating Systems: From your Windows Desktop, Click “Start” — “Devices & Printers.” Right click on the “S/A Combo. Sim Controllers” listed.

The Large Wheel Loader Simulator calibration procedure will use only the top two calibration functions.

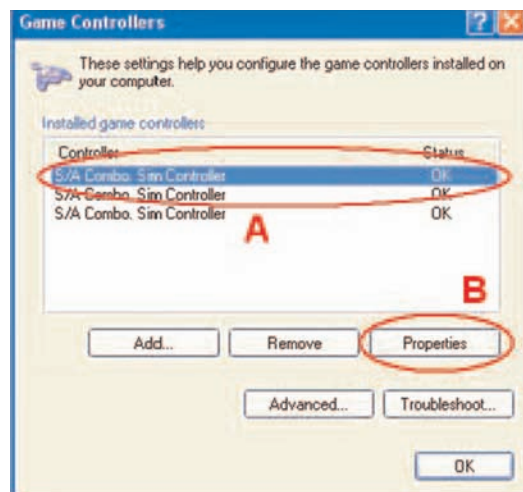
Controls Calibration Procedure

Follow each set of steps in the sequence shown to calibrate each simulator input device.

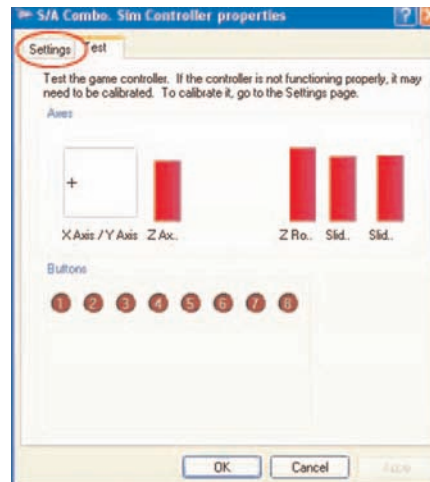
The First Group

The first group of control devices that you will calibrate is the Left Joystick functions, the Middle Pedal and the Right Pedal. These functions are calibrated under the first “S/A Combo Sim Controller.” Start this process by following these seven steps:

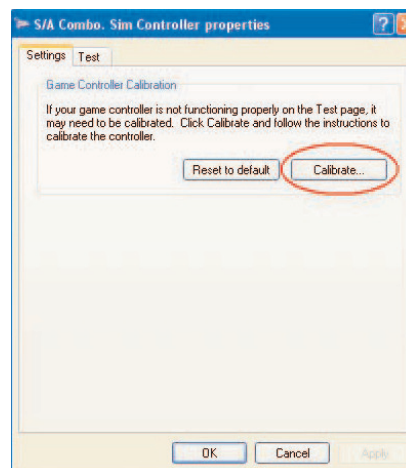
1. Select the first “S/A Combo Sim Controller” line (A).
2. Click on the “Properties” button (B).



3. Select the “Settings” tab.



4. Click on the “Calibrate” Button.

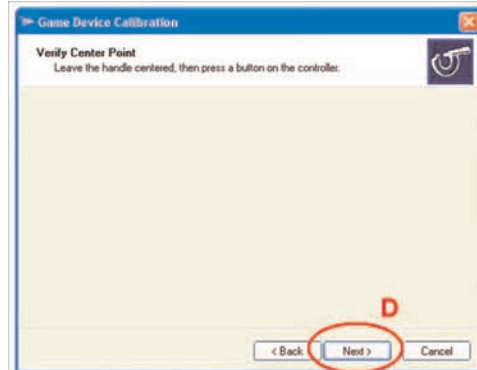
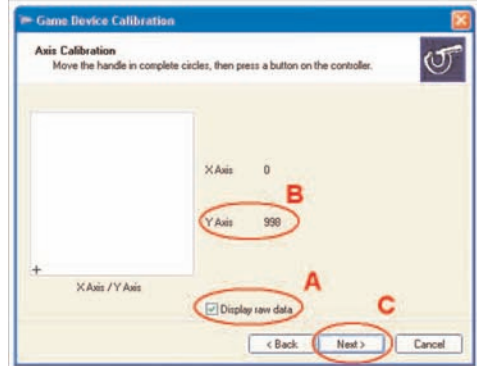


5. The “Welcome to the Device Calibration Wizard” will appear.



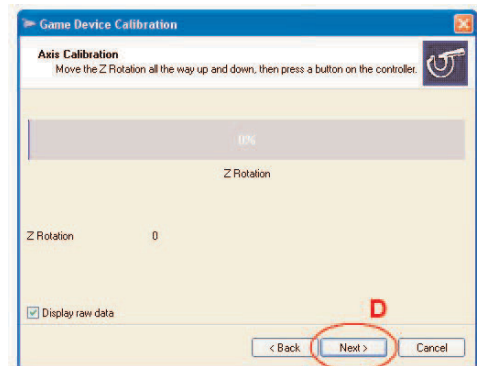
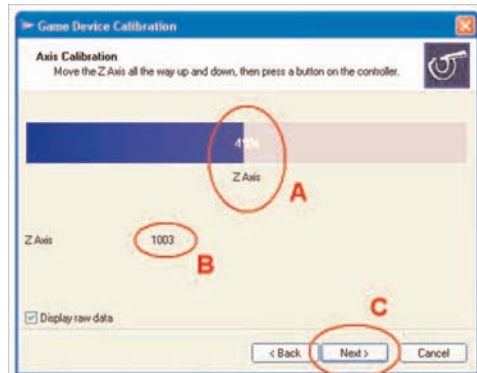
Calibrate Steering

1. Click on the “Display Raw Data” button.
2. The first function to be calibrated is the Left Joystick – Steering.
3. Watch the display while moving the Left Joystick left to right through its full range of travel.
4. The “+” cursor should move within the box and “Y Axis” numerical values should change to the right of the box. *Note:* There will be no change to the “X Axis” number.
5. Click “Next” until you are at the Axis Calibration for the Z Axis screen.



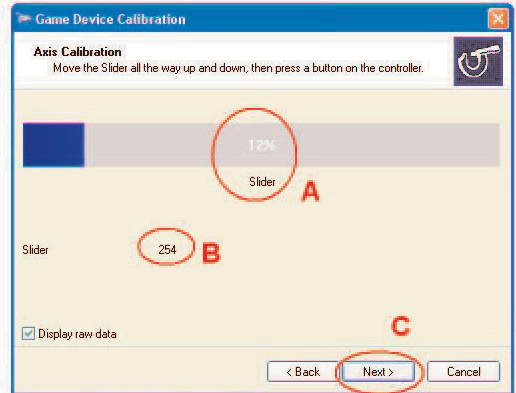
Calibrate Transmission Control

1. The second function is the Transmission Selector Switch (“Z” Axis) located on the Left Joystick (A).
2. Cycle the Switch forward and backward through its full range of movement.
3. You should see the “Raw Data” values change as you move the lever. The horizontal bar may not move to the left and right (B).
4. Return the Transmission Selector Switch to the center (neutral) position.
5. Click “Next” until you are at the Axis Calibration for the Slider screen (C and D).



Calibrate Service Brake

1. The third function to be calibrated is the Brake Pedal function – middle pedal on the Pedal Assembly (A).
2. Press (cycle) the middle pedal several times.
3. You should see the “Raw Data” values change as you move the lever. The horizontal bar may not move to the left and right (B).
4. Click “Next” (C).

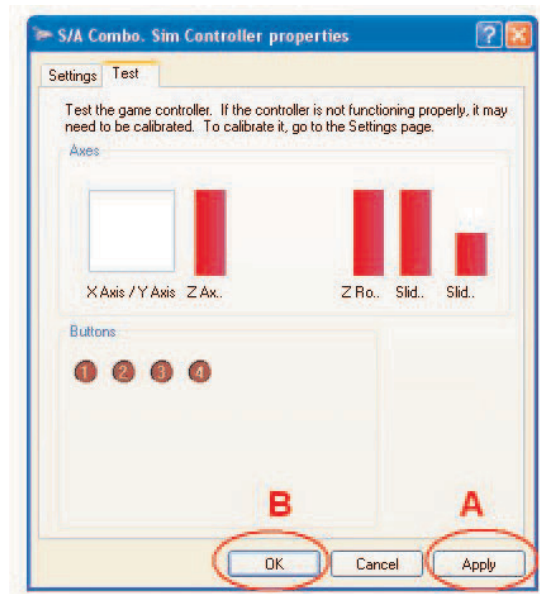


Calibrate Engine Throttle

1. The forth and final function to be calibrated under the first “S/A Combo Sim Controller” is the Throttle function – the right pedal on the Pedal Assembly.
2. Press (cycle) the right pedal several times.
3. You should see the “Raw Data” values change as you move the lever. The horizontal bar may not move to the left and right.
4. Click “Next.”
5. Click “Finish.”



6. Click the “Apply Button” (A) and then the “OK” button (B) on the S/A Properties Panel this locks the calibrations just set for these functions. *Note:* If you do not press the "OK" button, then your calibration settings will be lost.

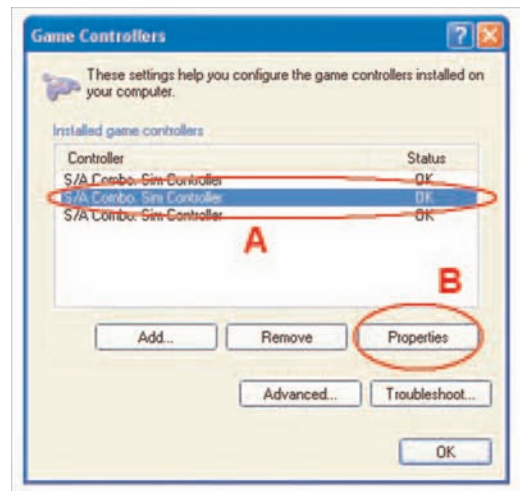


The Second Group

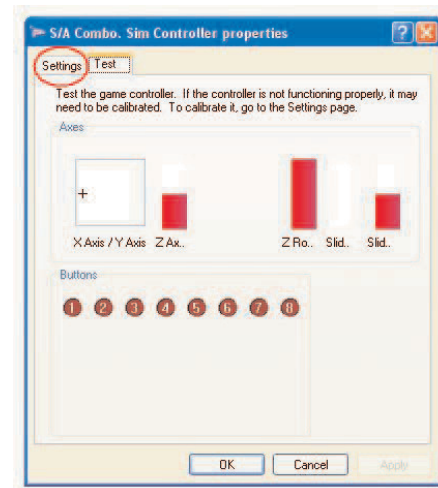
The second group of control devices that you will calibrate is the Right Control Pod functions and the Left Pedal. These functions are calibrated under the second “S/A Combo Sim Controller”.

Start this process by following these seven steps:

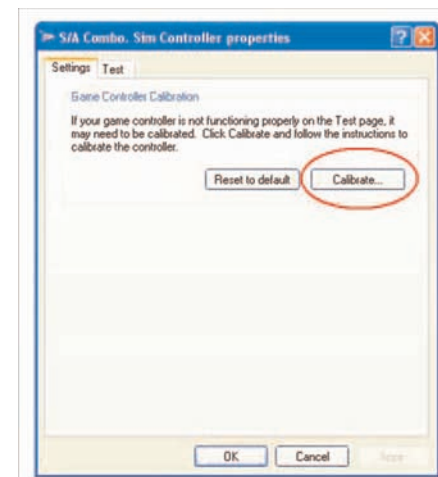
1. Select the second “S/A Combo Sim Controller” line (A).
2. Click on the “Properties” button (B).



3. Select the “Settings” tab.



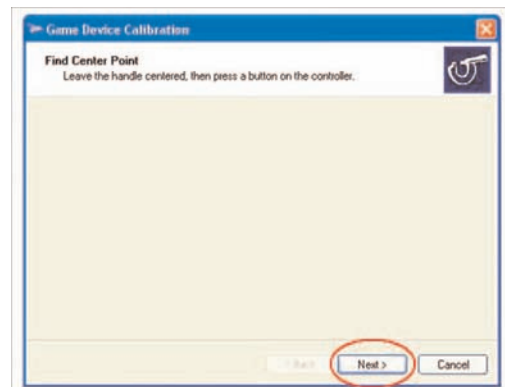
4. Click on the “Calibrate” Button.



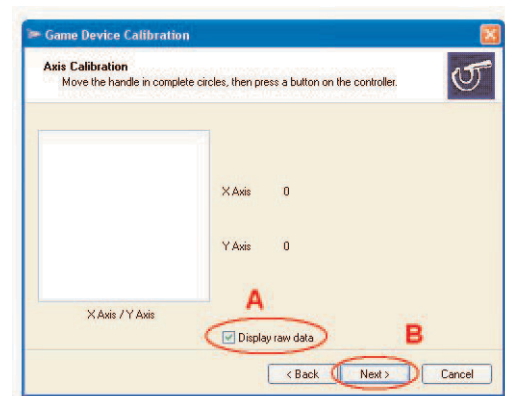
5. The “Welcome to the Device Calibration Wizard” will appear.



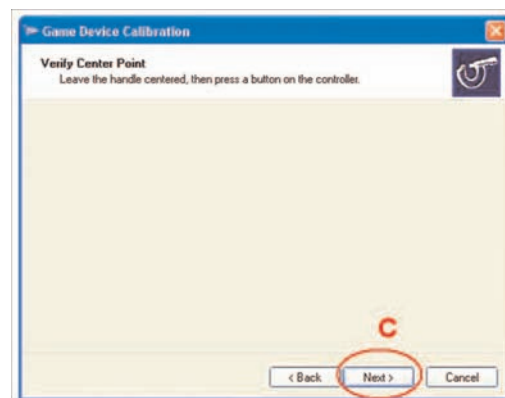
6. Click “Next” until you are at the “Axis Calibration” screen.



7. Click on the “Display Raw Data” button (A).

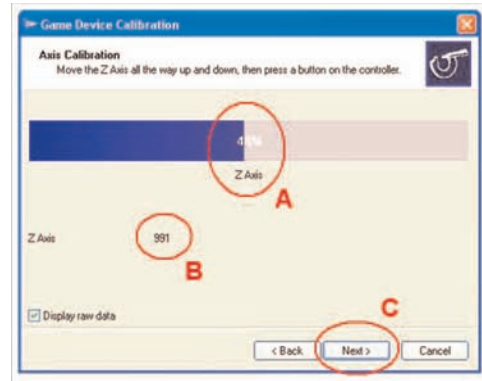


8. Click “Next” until you are at the Axis Calibration for the Z Axis screen (B and C).



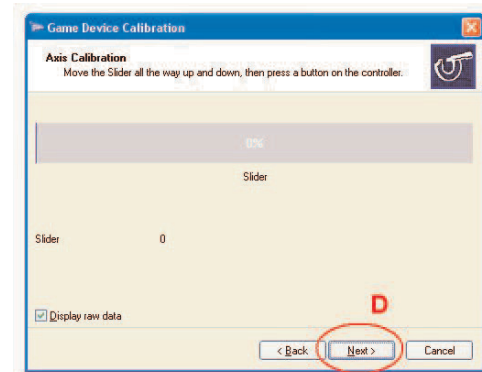
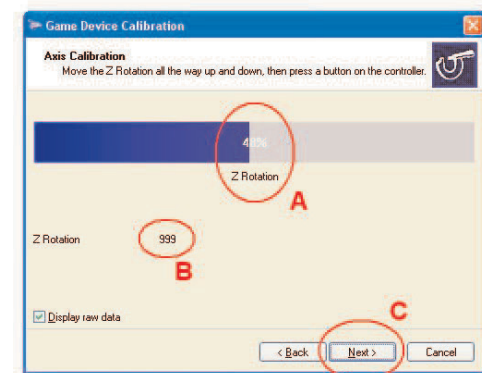
Calibrate Lift Lever (Z Axis)

1. The first device to be calibrated is the Implement Lever (Right Lever on the Right Control Pod) (A).
2. Move the Lift Lever to the full forward and backward positions.
3. You should see the “Raw Data” values change as you move the lever. The horizontal bar may not move to the left and right (B).
4. Click “Next” (C).



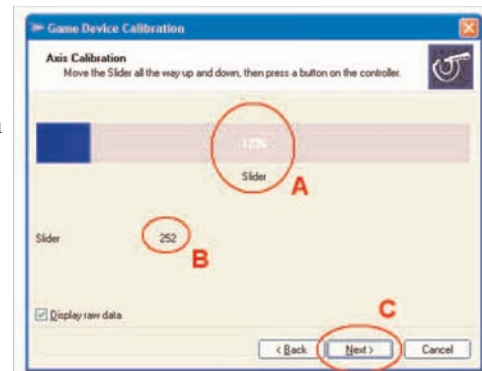
Calibrate Bucket Lever (Z Rotation)

1. The second function to be calibrated is the Implement Tilt Lever (Left Lever on the Right Control Pod) (A).
2. Move the Tilt Lever to the full forward and backward positions.
3. You should see the “Raw Data” values change as you move the lever. The horizontal bar may not move to the left and right (B).
4. Click “Next” until you see the second “Axis Calibration” slider function (C and D).

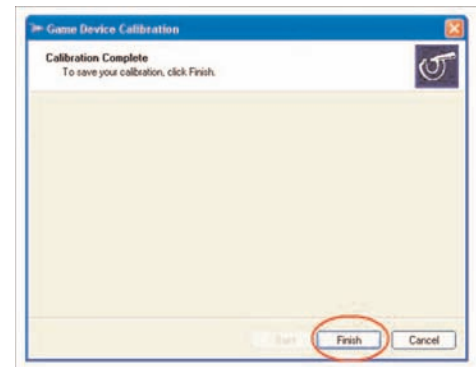


Calibrate Transmission Neutralizer Pedal

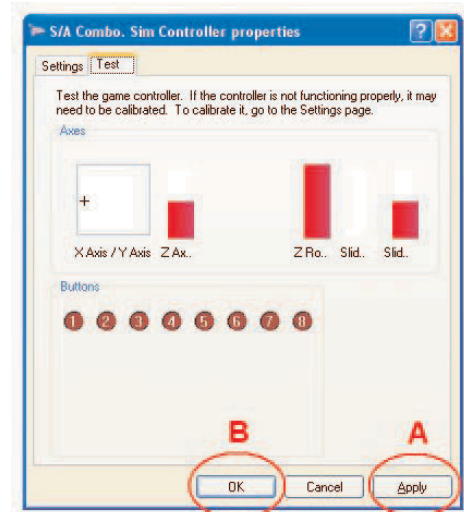
1. The third and final function to be calibrated under the second “S/A Combo Sim Controller” is the Transmission Neutralizer Pedal function – the left pedal on the Pedal Assembly (A).
2. Press (cycle) the right pedal several times.
3. You should see the “Raw Data” values change as you move the lever. The horizontal bar may not move to the left and right (B).



5. Click “Finish.”

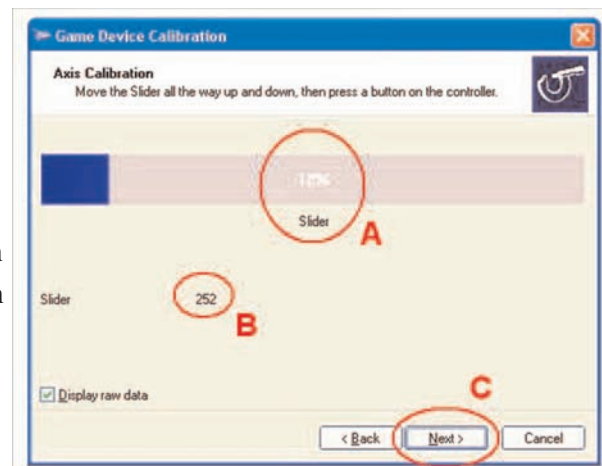


6. Click the “Apply Button” (A) and then the “OK” button (B) on the S/A Properties Panel – this locks the calibrations just set for these functions. *Note:* If you do not press the "OK" button, then your calibration settings will be lost.



Finished

Click the “OK” button to close the calibration window. The calibration procedure is done only once unless a simulator component is replaced. You are ready to use your Large Wheel Loader Simulator. Click on the Large Wheel Loader icon on the Windows Desktop to start your Simulation software.



Client Services Support

Cat Simulators come with support services for the first year (nominal subscription fee applied after the first year). Technical support is included (in English) Monday-Friday 6 a.m. to 7 p.m. CST. The support staff will answer any questions, trouble-shooting needs, warranty requests or relicense and transfer needs.

- Call 1.877.434.7467 (inside the U.S.); 1.309.266.2640; or e-mail support@catsimulators.com
- On-site set up and installation of the simulator is available. Call for quote.
- Simulator instruction is available by a trained simulator operator on-site or over the Internet. Call for quote.

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