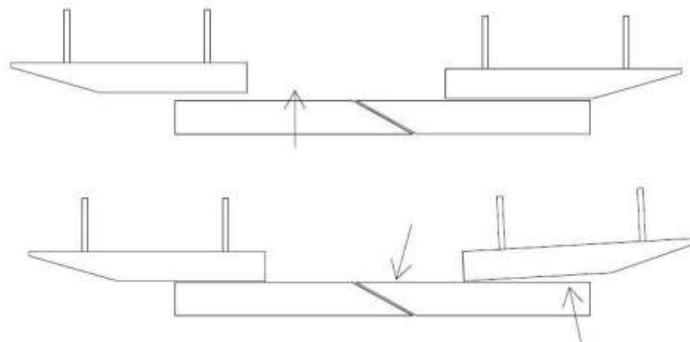


Websaw 1000 - 1150 Calibration

- 1) Rollers should be clean and knurling should be sharp as to grip the wood well



- 2) Make certain that the infeed and outfeed fences are aligned. Fence as shown is misaligned and will cause blade to pinch.



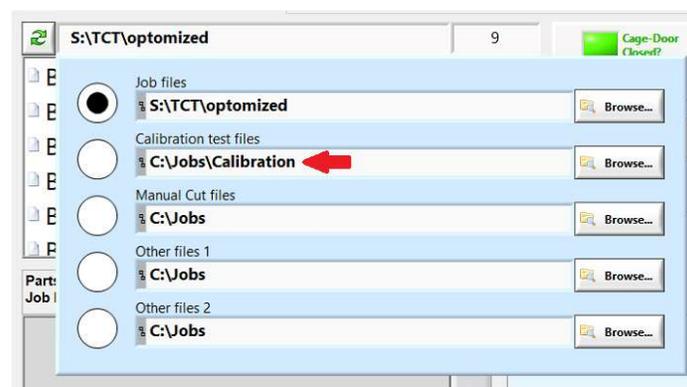
- 3) Jog a 2x4 into both rollers and check the tension on the table springs. Infeed should have 3/16" gap under the adjustment nut washer, under the outfeed adjustment nuts should be free but very little up and down clearance. Make sure the spring studs are not broken.



4) You should be able to jog a straight 16' 2x4 thru the saw and the board will stay tight against the fence. When you back the board up, it should ride away from the fence not more than 1/2" in 10 ft of jogging backwards. If it will not do this, the angle of the bottom rollers must be adjusted. It is best to do this one roller at a time. This can be done by using the wedges from the 100 inch test.

5) Check for mechanical slop between the feed roller and the servo motor. You can do this by jogging a 2x4 into first the infeed roller only and try to push it by hand in and out. It should only move about a quarter inch one way or another and should spring back to the middle position when released. Check the outfeed in the same manner.

Note: Calibration files are found under C:/JOBS/Calibration. Please disregard blade kerf warnings on any calibration file. This will not effect the results of calibration.



6) Use length test file to cut a 90 degree cut on the front of a 2x6. Set temp front cleanup to 1". Confirm cut is 90 degrees with a framing square, see below. If it is out of square, hit 'initialize motors' on the saw screen, and adjust motor homing position. Rehome. Recut. Recheck. Also confirm that take sure that the saw is cutting the proper amount off the front end the board.

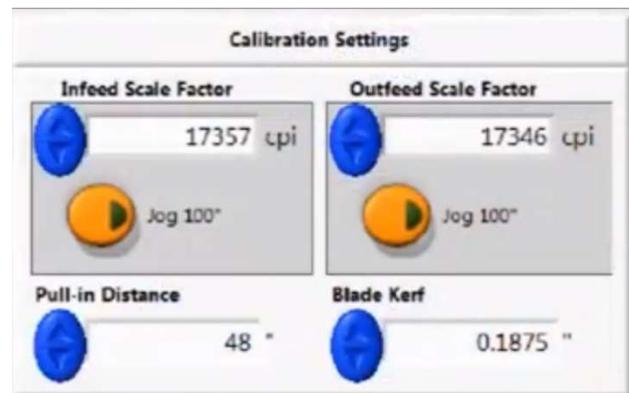


7) Using the same length test file confirm that the saw is only cutting dust off the front of the board, a piece should not fall. Change "front clean up" under the settings screen to adjust this cut. The "front clean up on the main screen is a temporary clean up only. Do not adjust this cut here.

8) Set your scale factors: Release the tension on the roller **not** being tested. This is best done by pushing wood wedges in between the housing and the roller table (see attached picture) the wedges are cut at 90 degree / 80 degree with a 2.5" centerline. Then go to settings on the desktop of the saw operators screen and calibrate infeed and out feed separately.



1. Block up opposite side of table. (IE Infeed)
2. Push board under unused roller (IE Infeed) make sure board moves freely.
3. Jog board through roller being calibrated (IE Outfeed)
4. Press calibrate button (IE Outfeed)
5. Operator will mark the across the board (see photo, use 2x4 as guide to make line across)
6. Jog what is supposed to be 100"
7. Marking a second line on the board (from same side of machine as the first mark)
8. Measure to confirm that it is 100"
9. Enter the number if it is not 100" to recalculate
10. Once 100" exactly is achieved, the test is complete



SCALE FACTOR FOR SAWS WITHOUT CALIBRATION WIZARD ONLY: Roller calibration can be done from Pwin32Pro by using the following commands from the terminal screen. Jog the 16ft 2x4 under the infeed roller, draw a mark on the top of the board using the exterior cabinet as a guide (as in the video) then in the terminal screen type #1hmz (enter) this will set the #1 roller to zero, then type #1J=217700 which will jog the infeed roller 100 inches. Make another mark and check the length. (the number 217700 is just an example, use your own axis scale factor times 100 as show in your setting screen) If the distance between the marks is 100 inches, you are good to go, if not divide the number of counts moved by the actual distance moved to get the new axis scale factor. (example $217700/99.5=2188$ counts per inch of wood movement) Repeat this for the outfeed #2 roller

9) Cut a double 45 degree cut on the front end of a 2x4. Make sure that it is exactly 1.75 inches from the back edge of the board. Adjust the fence as needed to get it perfect. Be careful not to change the angle of the fence or the board will not jog thru correctly as in step 3. If the centerline is off, it may also be that the carriage bearings have failed.

10) Stretch shrink adjustment. Set your length adjustments to zero and cut a 16ft 90/90 board. Slide adjustment to + to add to length and – to subtract from length of lumber you are calibrating. Calibrate 2x4 and 2x6 separately. You can use the same board for subsequent test by cutting it again at 15-11 then 15-10 then 15-9 and so on. You can use the length adjustment to dial in the exact length. If you did everything right, you should get a very consistent length +1/-1 (Screen shows 2x8, 2x10 and 2x12. Not applicable to early Websaw models)

11) The last test is the 30-150 test. It will determine if the saw motor is positioned in the center of the pivot. You can find all these test files in C:\jobs\calibration on the saw. If all 4 boards do not come out the same length as each other, consult the attached Websaw manual under 30-150 test. Keep in mind the length of board is not as critical as the relationship between the 4 boards. Number them 1-4 as they come out.

WEBSAW 30-150 TEST

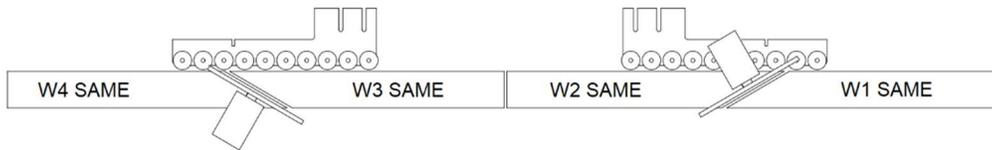
If all other tests were performed correctly, this test should be accurate on first try. Please note that the length of boards is not important, it is the relation of boards to one another that is key.

If the saw can cut the 30-150 cuts and all four boards stack up identical to each other the machine software and hardware dynamics are correctly adjusted. If the cuts do not line up with each other you can diagnose what area of the saw that needs to be adjusted by keeping the 4 boards in **cut order**.

Select the "30-150 Test" file and cut it out of one (8' minimum length) 2x4 board. Select a good straight board for this test cut and also one that 3 1/2" wide. A poor piece of lumber will result in test cuts that may appear to show calibration being incorrect.

SCENARIO #1: Pieces 1, 2, 3 and 4 all have the same angle and overall length. The saw is calibrated correctly.

W1 SAME	
W2 SAME	
W3 SAME	
W4 SAME	

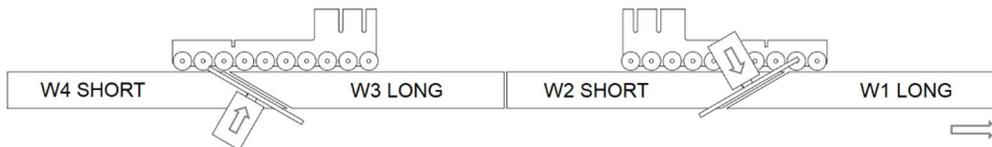


Now stack the 90-30 and the 90-150 boards in the order they were cut (W4 – W3 – W2 – W1) and compare with the following scenarios to determine if any adjustment is needed or what adjustment needs to be made.

SCENARIO #2: Pieces 1 and 3 are long, pieces 2 and 4 are short.

Problem: Blade is off center of towards the motor. Adjustment needed: Slide motor direction of arrow towards blade.

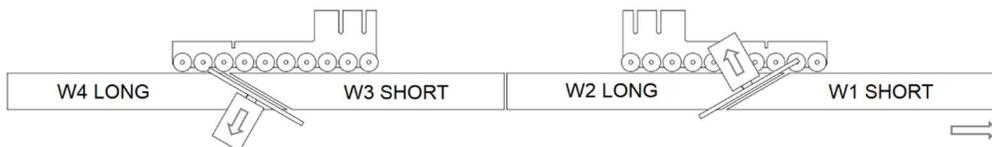
W1 LONG	
W2 SHORT	
W3 LONG	
W4 SHORT	



SCENARIO #3: Pieces 1 and 3 are short, pieces 2 and 4 are long.

Problem: Blade is off center of away from the motor. Adjustment needed: Slide motor direction of arrow away from blade.

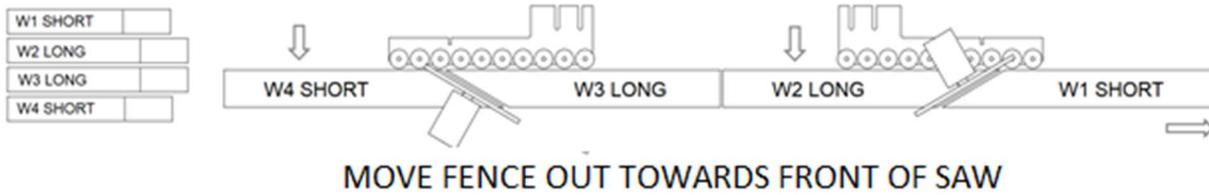
W1 SHORT	
W2 LONG	
W3 SHORT	
W4 LONG	



SCENARIO #4: Pieces 1 and 4 are long, pieces 2 and 3 are short.

Problem: Fence is off towards rear of saw.

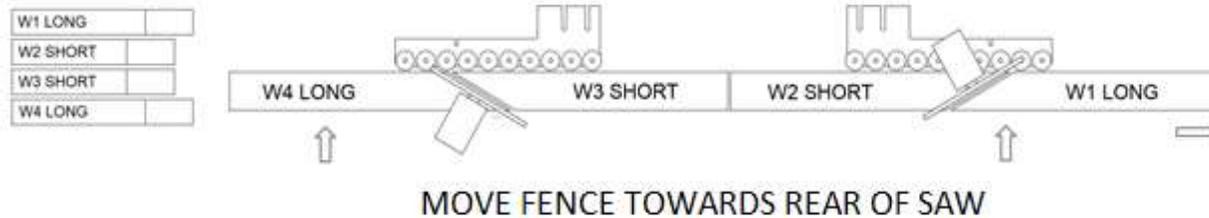
Adjustment needed: Move Fence **outward** towards the front of the saw.



SCENARIO #5: Pieces 1 and 4 are short, pieces 2 and 3 are long.

Problem: Fence is off towards front of saw.

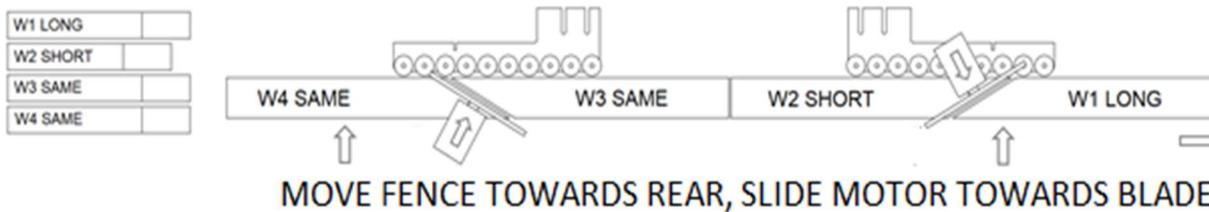
Adjustment needed: Move Fence **inward** towards the rear of the saw.



SCENARIO #6: Piece 1 is long, piece 2 is short, and pieces 3 and 4 are the same.

Problem: Fence is too far forwards and blade is off center toward motor.

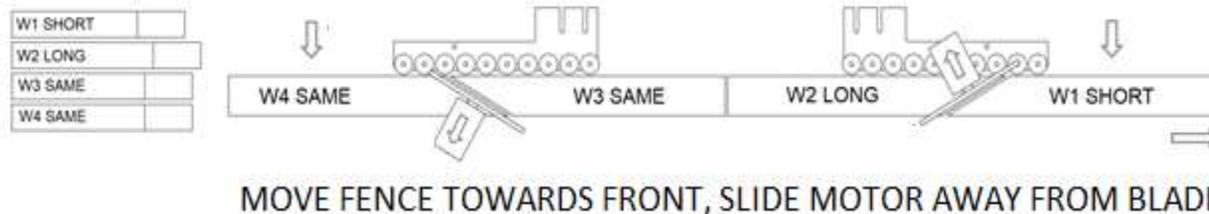
Adjustment needed: Move fence rearward and motor in direction of arrows.



SCENARIO #7: Piece 1 is short, piece 2 is long, and pieces 3 and 4 are the same.

Problem: Fence is too far back and blade is off center away from motor.

Adjustment needed: Move fence forward and motor in direction of arrows.



SCENARIO #8: Piece 1 and 2 are the same, piece 3 is long, and piece 4 is short.

Problem: Fence is too far back and blade is off center toward the motor.

Adjustment needed: Move fence forward and motor in direction of arrows

W1 SAME	
W2 SAME	
W3 LONG	
W4 SHORT	



MOVE FENCE FORWARD, SLIDE MOTOR TOWARDS BLADE

SCENARIO #9: Piece 1 and 2 are the same, piece 3 is short, and piece 4 is long.

Problem: Fence is too far forwards and blade is off center away from motor.

Adjustment needed: Move Fence rearward and motor in direction of arrows.

W1 SAME	
W2 SAME	
W3 SHORT	
W4 LONG	



MOVE FENCE TOWARDS REAR, SLIDE MOTOR AWAY FROM BLADE