washlink SYSTEMS

ECAdjuster Conveyor

Tech Guide & Tutorial

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WASHLINK SYSTEMS
ECAdjuster for the Conveyor

This document provides comprehensive information for using the ECAdjuster for the Conveyor.

The ECAdjuster for the Conveyor has the ability to adjust and configure your car wash tunnel Conveyor.

When emailing or calling for assistance, you must have the following information available:

Location Name: _____

Contact Person: _____

Contact Phone: _____

Distributor Name: _____

Table of Contents

1 Explanation of the Tech Guide

Welcome to the Washlink Systems “ECAdjuster for the Conveyor Tech Guide”.

Washlink Systems support team highly recommends reviewing the “Washlink Systems ECAdjuster User Interface Tech Guide” prior to making any changes to the ECAdjuster for the conveyor.

Understanding the basic components of the Conveyor function of the ECAdjuster is not difficult. Washlink Systems uses the same basic Microsoft Windows® functions to adjust any available options within the ECAdjuster interface. Following this simple and basic tutorial will give you all the basic knowledge necessary to adjust your conveyor using the Washlink Systems ECAdjuster program. There is no need to learn any special programming, as this tutorial is designed to provide you with a general understanding of adjusting your conveyor using the ECAdjuster in plain and simple terms. This will allow you to make any changes to the Conveyor simply and easily.

This icon identifies a very important piece of information that the editor using the ECAdjuster should be aware of.

This icon warns the editor that extreme attention to the configuration process should be taken. By editing or altering the configuration that is indicated by this warning may potentially cause unintended consequences. Edit with extreme care. If you have any questions about editing the configuration please contact Washlink Systems Support by phone +1.408.924.0808 or by e-mail support@washlinksystems.com

WARNING -This icon indicates that making any changes could possibly cause the Washlink Systems program, network connections, configurations or settings and your car wash not to function in its intended way. Additional changes may cause the your car wash not to operate in its original configuration. Before making any changes it’s highly suggested to contact Washlink Systems support team before any emergency intervention is necessary.

2 Features

Features of Washlink Systems ECAdjuster Conveyor Tech Guide;

- Learn how to change and or adjust your conveyor using the ECAjuster user interface (GUI).
- Use common practices in adjusting and programing basic functions of your conveyor from the Washlink Systems Server (common with all Washlink Systems suite of programs).
- Learn to define customizable settings of the conveyor to your personal preferences.
- This tech guide is the second in a series of tech guides available for your review that resides on the Washlink Systems website for explanations and training of the ECAdjuster.
- Washlink Systems highly suggests reviewing the tech guide called " ECAdjuster User Interface" prior to the ECAdjuster Conveyor" tech guide to get a true understanding on how the GUI (General User Interface) within the ECAdjuster user interface functions. Having a through understanding of the user interface will enhance your understanding exactly how to maneuver though the ECAdjuster interface.

3 Washlink Systems ECAdjuster Conveyor Basics

- The Washlink Systems ECAdjuster Conveyor is pre-installed on and programed using the Washlink Systems purchased and supplied server.
- The Washlink Systems Conveyor portion of the ECAdjuster must be purchased and installed by Washlink Systems support team on the Washlink Systems server.
- The Washlink Systems ECAdjuster Conveyor must be connected via WashlinkNET to the equipment controller.
- The initial configuration of the Washlink ECAdjuster is typically configured for basic setup at time of installation.
- The speed of the conveyor (cars per hour) should be set prior to making any adjustments to the conveyor settings.
- If you already have the Washlink Systems ECAdjuster and need further technical support contact Washlink Systems support by either phone +1.408.924.0808 or e-mail support@washlinksystems.com.

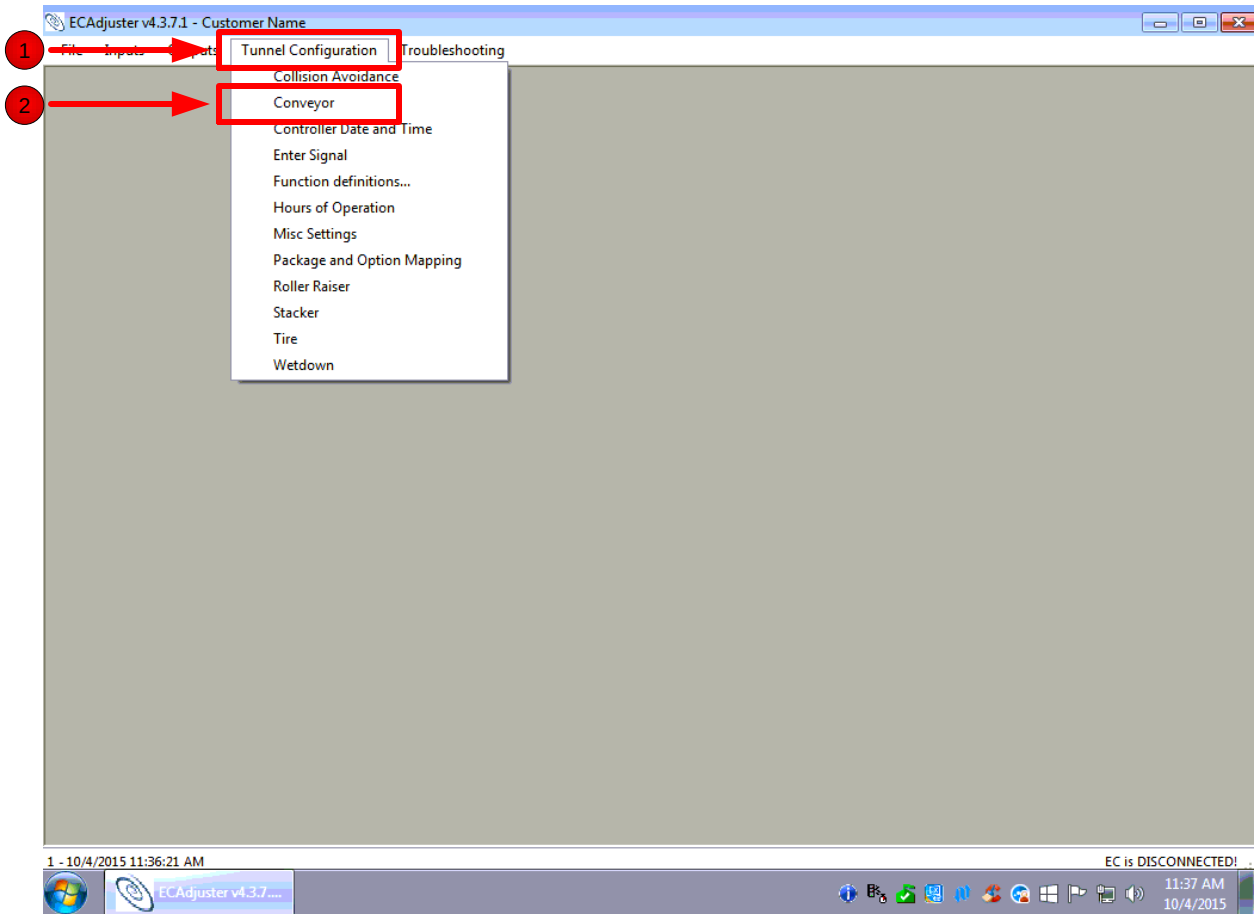
4 Explanation of Tutorial

- It's highly recommended that you review the Washlink Systems "ECAdjuster User Interface" tech guide prior to reviewing the ECAdjuster tech guide to familiarize yourself with the basic functions of the ECAdjuster interface.
- In this tutorial we will demonstrate each component of the Washlink Systems ECAdjuster's conveyor function.
- We will give you simple explanations of each component, functionality and adjustments on how to setup your conveyor within the ECAjuster.
- By understanding the basic functions of your conveyor, you will be able to make changes and adjustments to your conveyor to your personal liking.
- Since each car wash may have different types or brands and setups of conveyors, learning basic configuration and adjustments will enable you to configure your conveyor to your personal preferences.
- Adjustments can be configured to all current manufactures of conveyors using the ECAjuster's conveyor function.
- If additional support in necessary contact Washlink Support by phone +1.408.924.0808 or by e-mail support@washlinksystems.com .

5 Getting Started

Review the Washlink Systems “ECAdjuster User Interface” tech guide to understand how to get the ECAdjuster started.

- Start the ECAdjuster program
- Login to the ECAdjuster

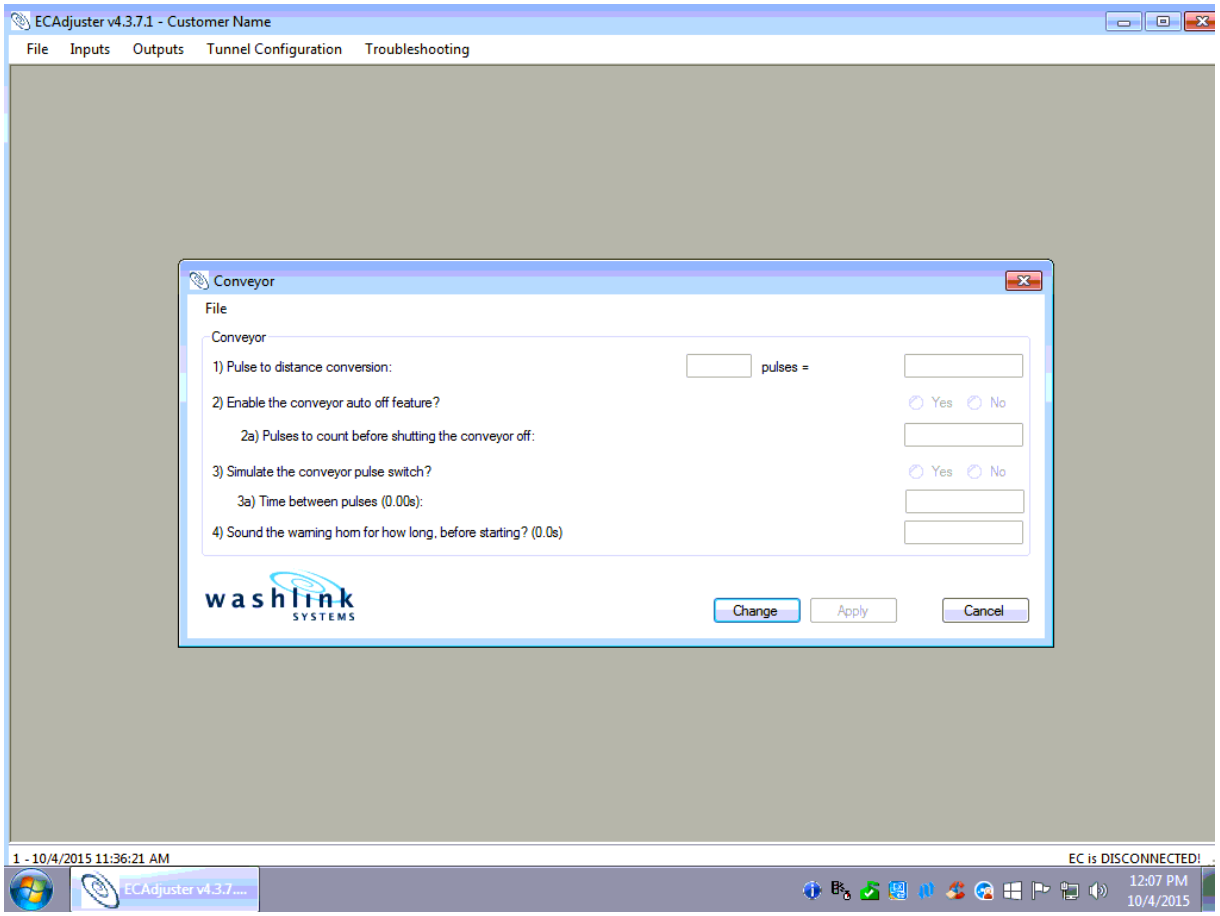


1 Click on the “Tunnel Configuration” tab on the menu bar.

2 Click on “Conveyor” in the dropdown.

6 Conveyor

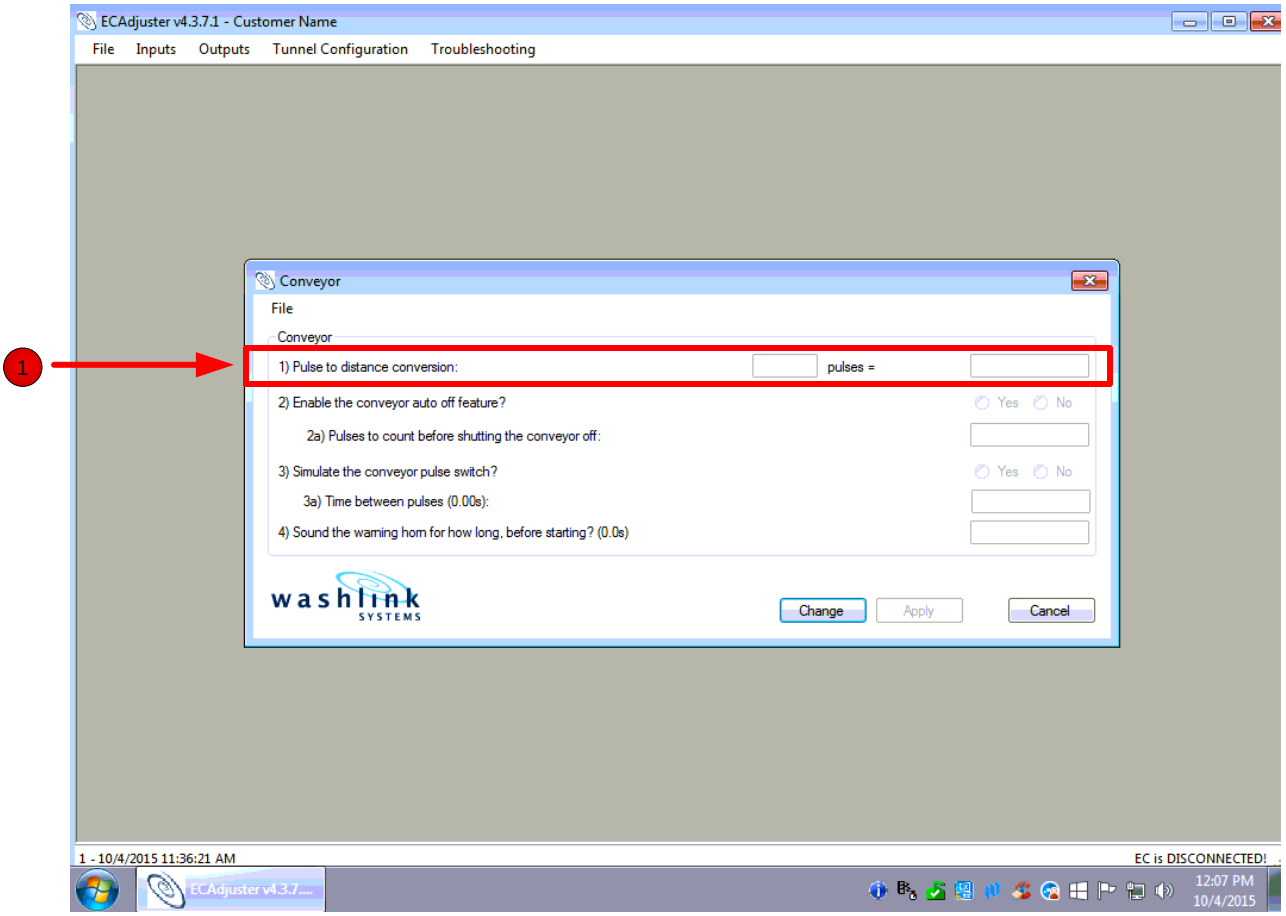
- The “Conveyor” settings box enables you to configure your tunnel conveyor to your personal settings.
- You can adjust any brand of conveyor in this area.
- Adjusting your conveyor may effect other pieces of equipment in your tunnel.
- You can not adjust the speed of the conveyor here. Though the conveyor speed will impact other equipment in the tunnel and adjustments made here. The conveyor settings are primary to adjusting other equipment within your tunnel.



7 Pulses to distance conversion

(Take note that is section may be the most important of this tech guide at startup)

- Your wash typically uses a pulse switch to determine the pulses per foot. If you don't use a pulse switch you can skip this section and move on to "Simulate the conveyor pulse switch" section page 17 of this tech guide".
- The Pulses per foot maybe the most important setting making adjustments to your conveyor and must be made first.
- The "Pulse to distance conversion" will determine how other pieces of tunnel equipment work so accuracy is important.

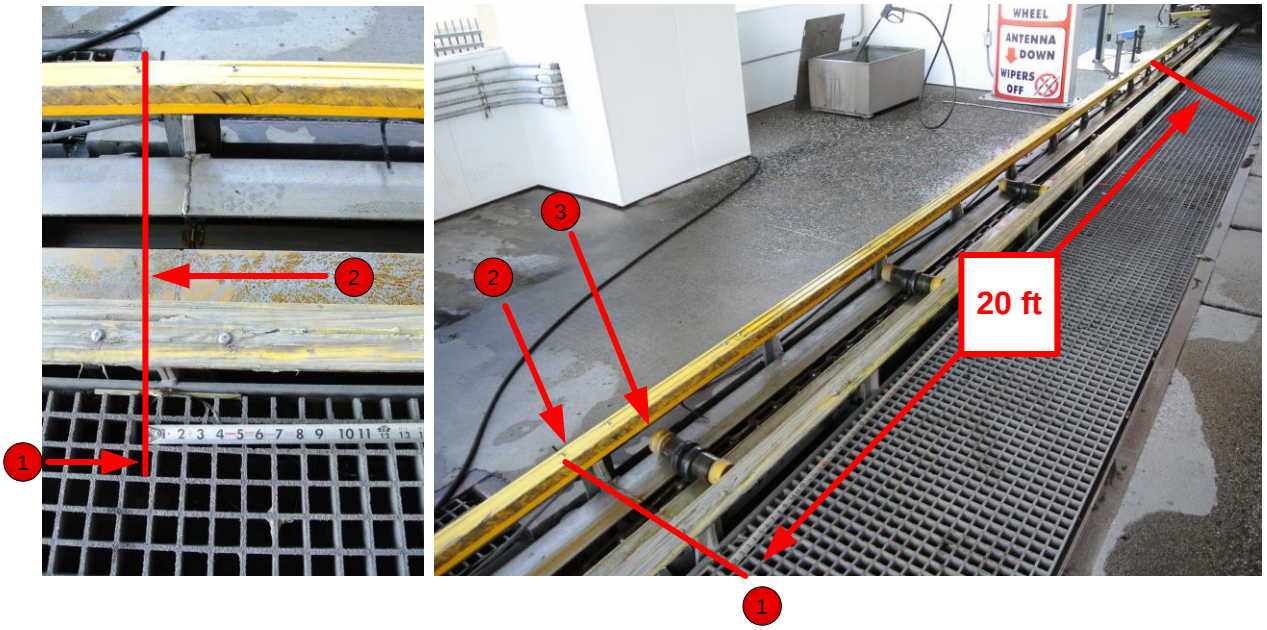


- Recommended – extra set of hands and eyes and a tape measure maybe helpful for an accurate measurement.

1 We are going to insert our pulses and feet in the "Pulse to distance conversion" area indicated above.

7 Pulses to distance conversion continued

1. We will set our tape measure for a distance of 20 feet.

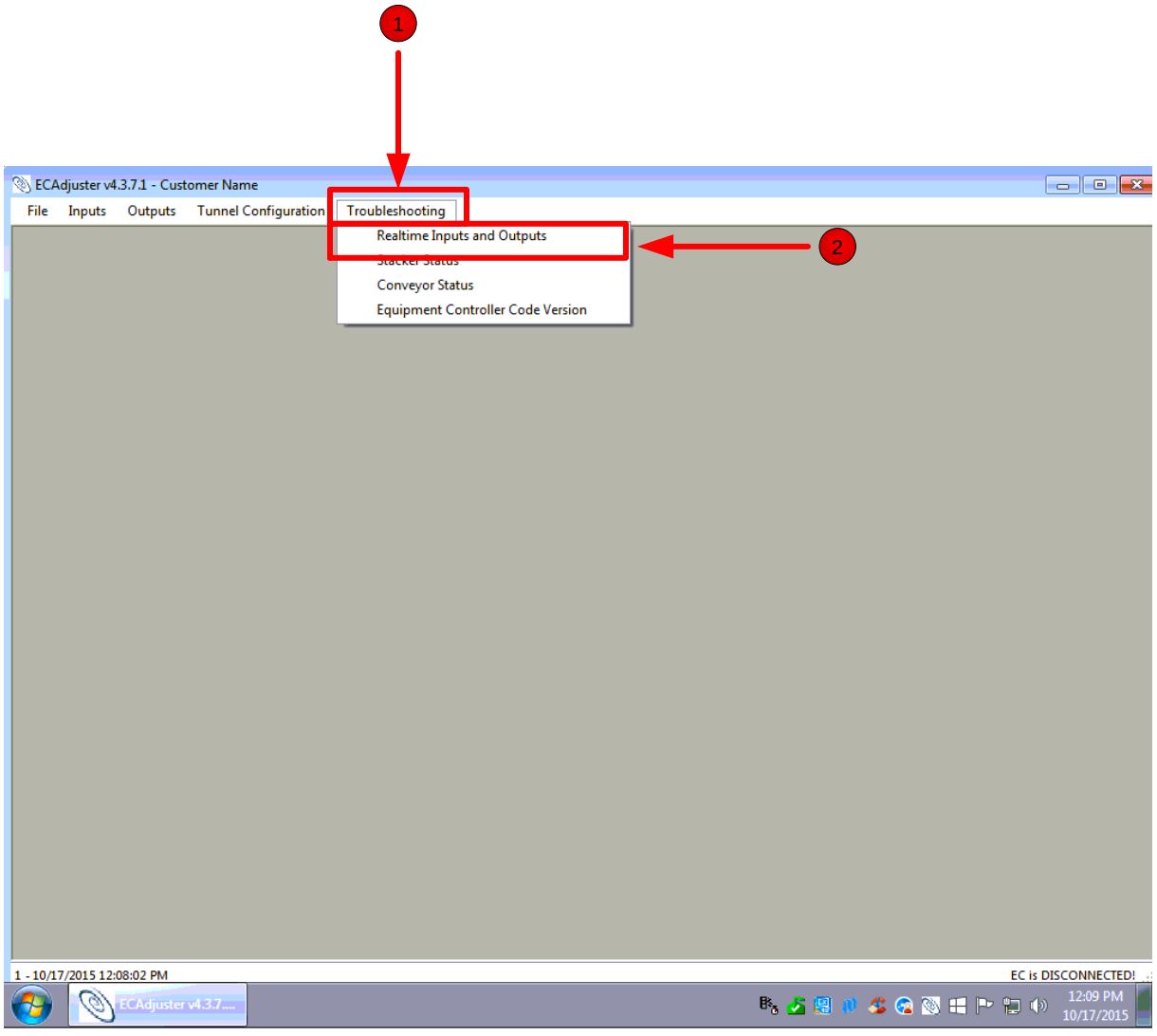


2. Now start your conveyor. When your roller reaches the beginning (0 inches) of the tape measure note what pulses are indicated in the conveyor settings in the troubleshooting tab (refer to page 11).
3. When the same roller reaches the 20 foot mark on the tape measure make another note of how many pulses in the 20 feet.

- In this next section having two people will help with your accuracy.
  a. One person to count the pulses on the Washlink server.
  b. Second person will tell you when to start and stop the count.
- Go to the next page (11) troubleshooting tab to determine how many pulses for the 20 feet.

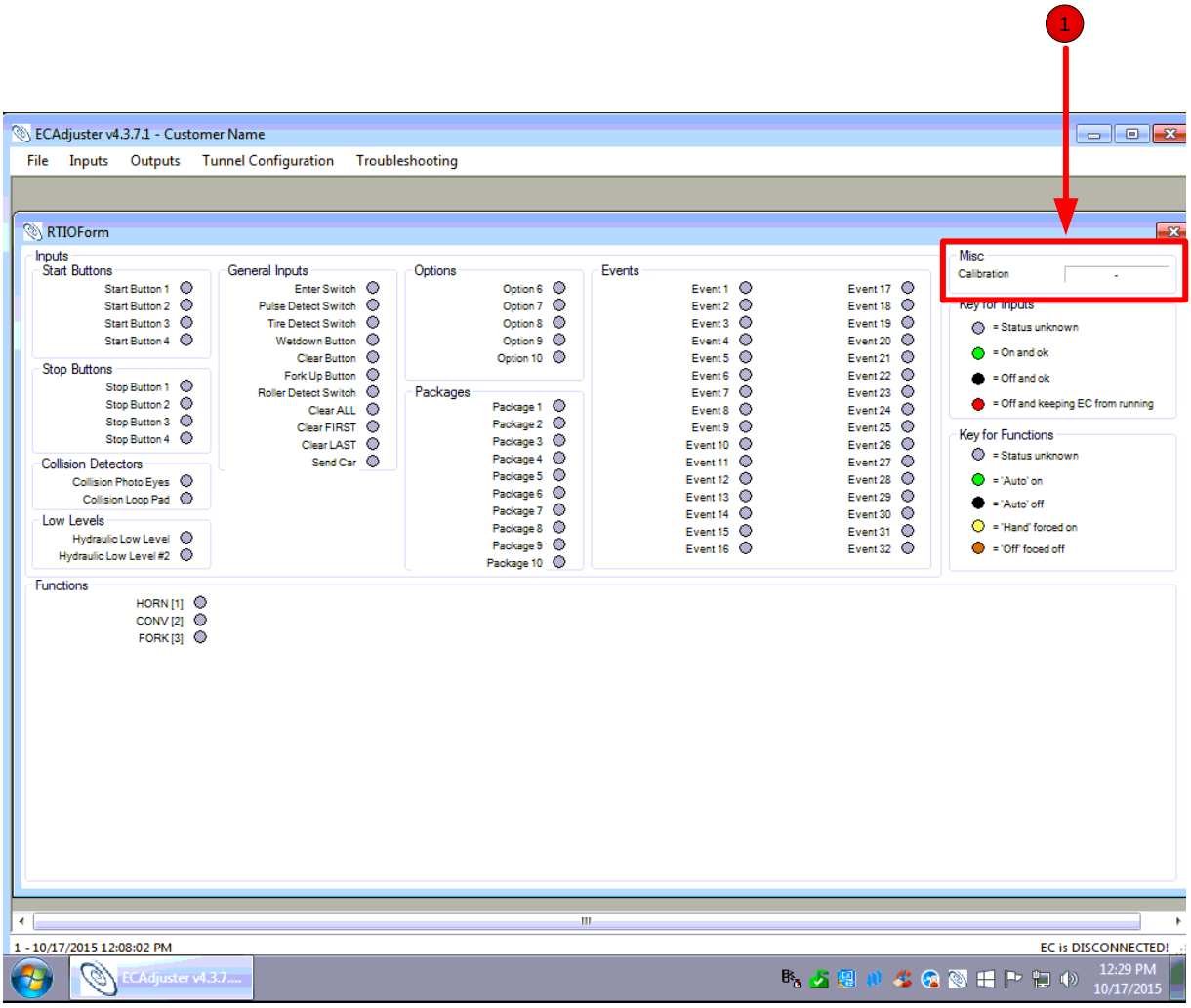
7 Pulses to distance conversion continued

1. Press the “Troubleshooting” Tab
2. Then press the “Realtime Inputs and Outputs” section within the tab.



7 Pulses to distance conversion continued

1. The pulses for the conveyor are located in the “Misc Calibration” section of the RTIOForm.



- Remember when the conveyor is turned off the “Misc Calibration” box will be empty.
- Upon restarting the conveyor the pulses will start counting.
- Once the conveyor starts and the first roller crosses the zero foot (0') point on the tape measure make note of the pulses in the “Misc Calibration” area (this is where the second person comes in play).
- When the same roller crosses the 20 foot mark on the tape measure note again the pulses in the same Misc Calibration area.
- Since the pulses will start counting upon the conveyor starting we’ll need to subtract the pulses before the roller crosses the 0' point on the tape measure. The formula is located on the next page 13. But for now make sure you’ve noted the pulses at 0 foot and the pulses at the 20 foot point on the tape measure. At this point you should know how many pulses at 0' and 20'.

7 Pulses to distance conversion continued

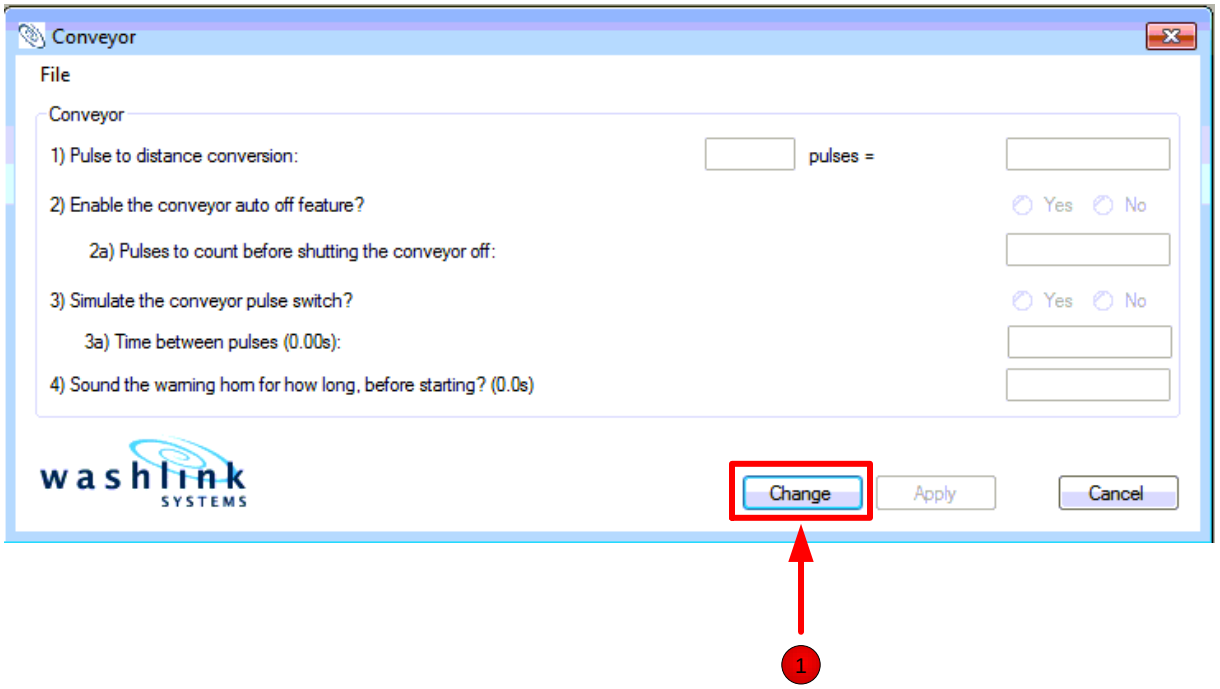
- For our example we will be entering the 132 pulses in our measured 20 feet and let the “Pulse to distance conversion” do the calculation for us. We will use this information on the next page (Page 14).
- Make note of the pulses and distances **you** collect for your car wash. You’ll need to enter this information in the boxes in the “Pulses to distance conversion” area. You can use any distance you prefer to get the pulses per distance. We’re using 20 feet due to simplicity.

Remember if you stop the conveyor in the middle of counting the pulses the pulse counter will reset. You will have to restart the process since the pulses counted will have reset to zero.

Now for some basic math.

If the roller started on pulse 100 (located in the pulse box) and indicated 232 pulses at the 20 foot mark of the tape measure then there were 132 pulses in 20 feet. 232 – 100 = 132 pulses (typical Hana conveyor).

1 Press the Change button. This will enable us to make the changes to the Conveyor settings.

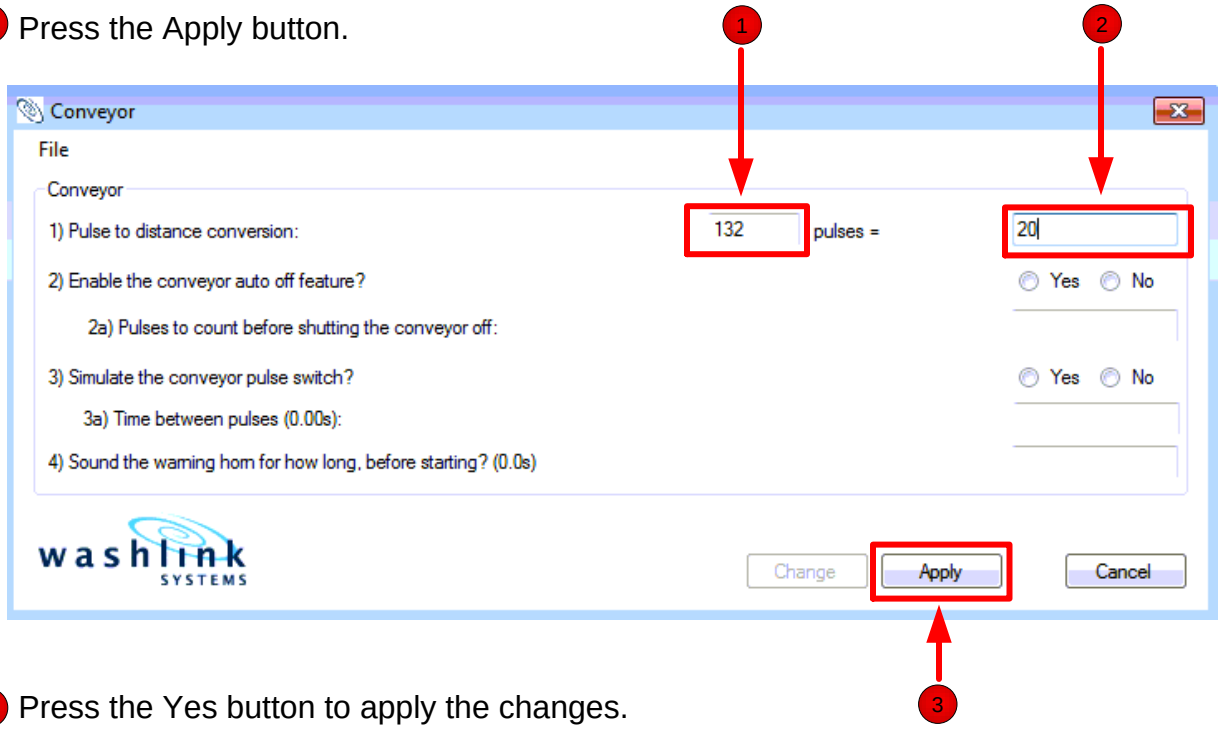


7 Pulses to distance conversion continued

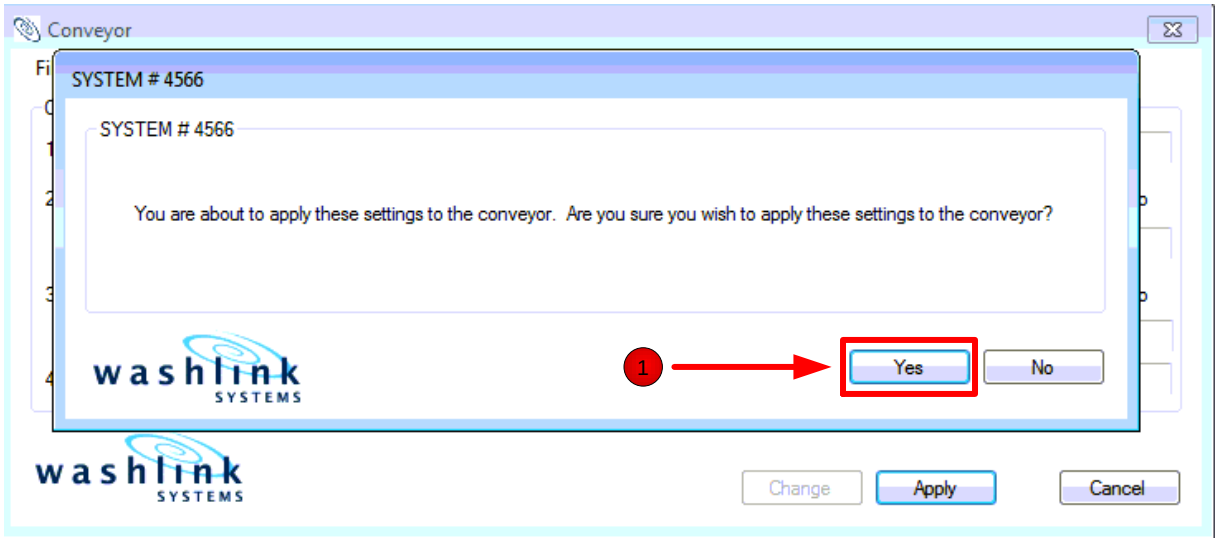
1. Enter the pulse. In this case we'll enter the 132 pulses that we counted within our 20 feet from the previous page 10.
2. Enter the feet and distance. This will be 20'0'' from our previous formula on page 10.

⚠ Remember – your pulses and distance will be different. Refer to page 10 to refresh your knowledge on how to determine your pulses and distance.

3. Press the Apply button.

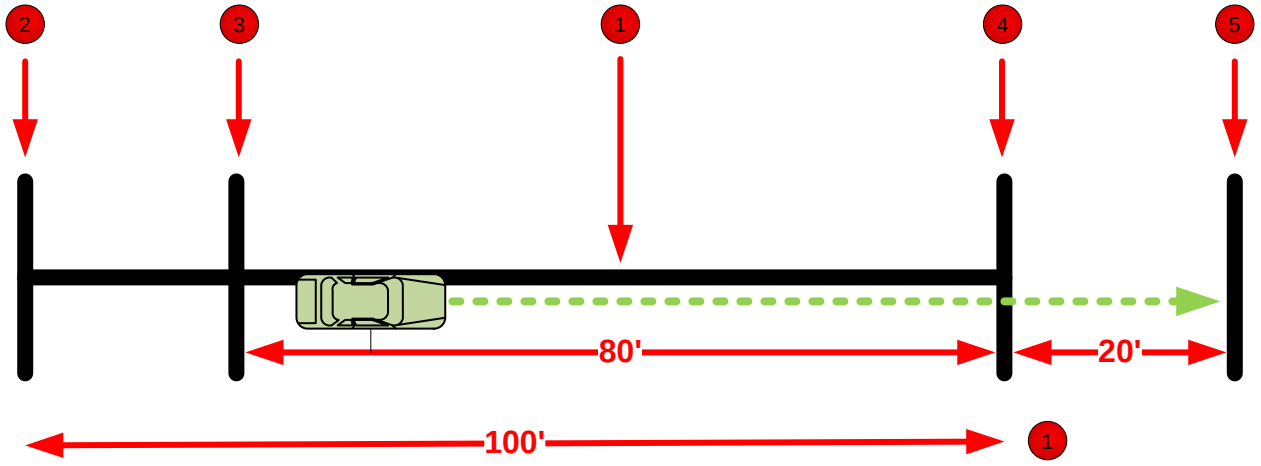


1. Press the Yes button to apply the changes.



8 Auto off

- The “auto off” function automatically turns the conveyor off once the last vehicle has exited the car wash tunnel. This is a energy savings convenience.
- We will show you the formula to determine how many pulses per foot for your conveyor.
- You will need to know the following;
  a) the length of conveyor from the eyes to the end of the conveyor.
  b) how long after the last vehicle exits the conveyor you wish the conveyor to turn off.
- Basic math – if you want the conveyor to stop 20 feet after the vehicle rolls of the conveyor. (total number of feet from the photo eyes) X (pulses per foot) = total number of pulses.
- The auto off function isn’t required. It’s an optional setting.

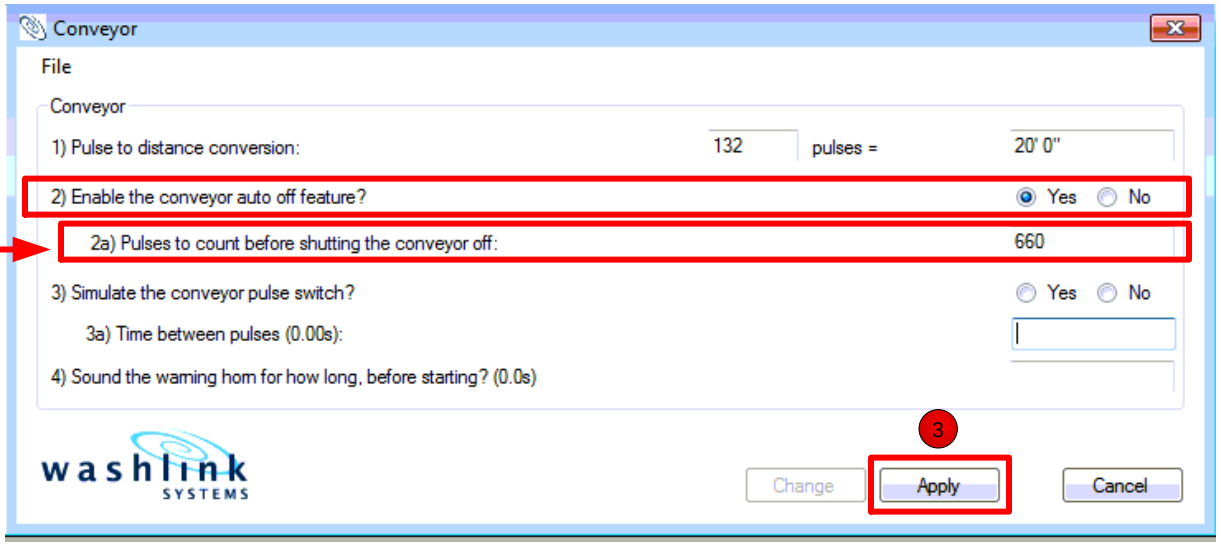


1. Conveyor (length 100')
2. Conveyor entrance
3. Photo eyes
4. End of the conveyor
5. Tunnel exit

Total pulses till the conveyor turns off formula

- We want the conveyor to turn off 20 feet after the vehicle leaves the tunnel.
- The distance from the photo eyes to the end of the conveyor is 80 ft. plus the 20 ft. the distance we want till the conveyor turns off.
- 80' + 20' = 100' total feet from the eyes to the time we want the conveyor to turn off.
- From our pervious pulse count, 132 pulses every 20' (page 10) we can calculate the basic pulses per feet. 132 pulses / 20' = 6.6 pulses per foot.
- Final formula – Our pulses per foot 6.6 X total distance till the conveyor turns off 100' = 660 total pulses. Formula 6.6X100'=660

8 Auto off continued

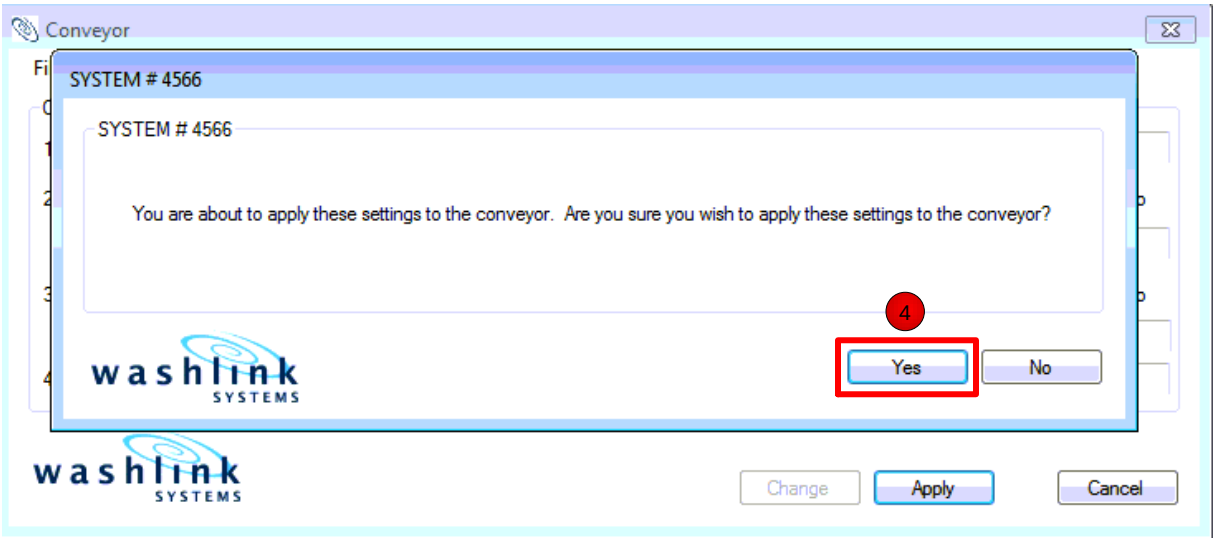


1. 2) Enable the conveyor auto off feature? We're choosing YES

2. 2a) Pulses to the count before shutting the conveyor off. We're choosing 660 pulses

3. Press Apply

- Remember – this is an optional setting and is not required.
- Your conveyor may be different and using the pulse formula from page 10 will help guide you in setting the auto off to your desired settings.
- You must press "Apply" for the above setting to be accepted.
- You must confirm by press the "Yes" button. Review page 12.



4. Apply your settings by pressing the "Yes" button.

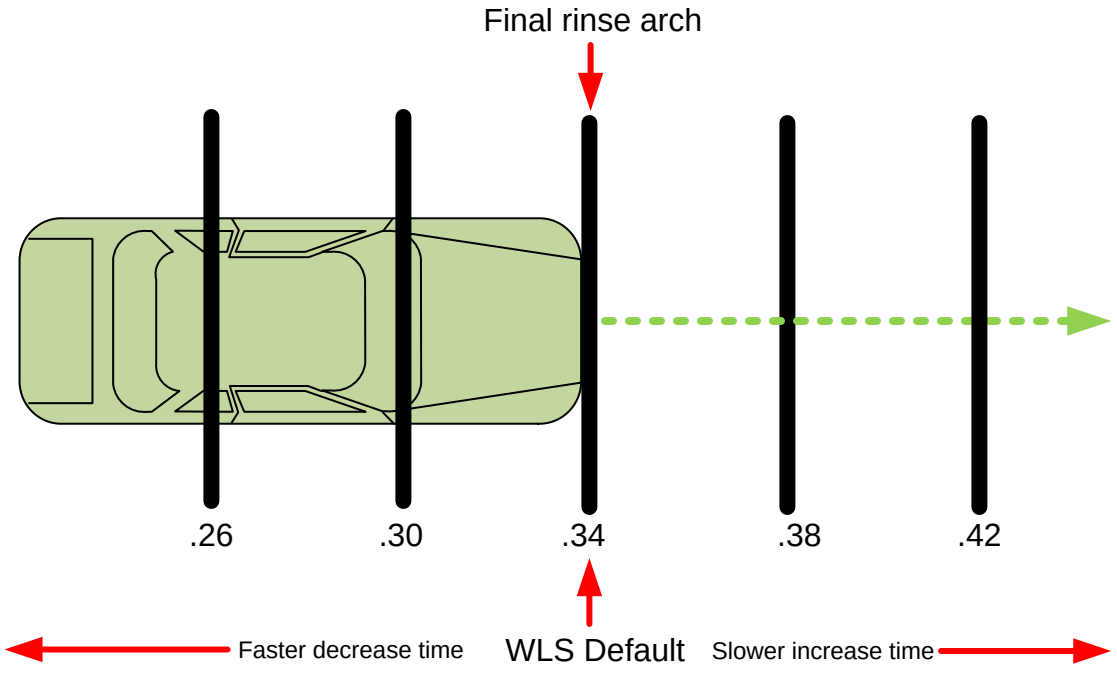
9 Simulating the pulse switch

- The typical setting is “No”.

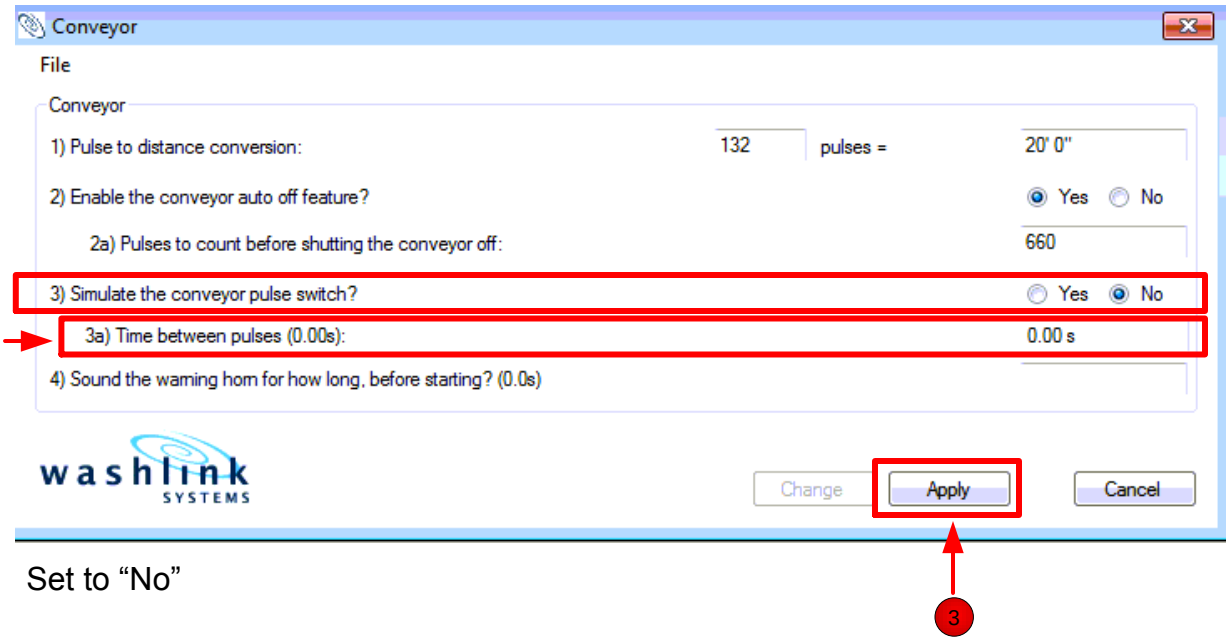
- **When would you want to simulate the conveyor pulse switch?**
- If you operate your wash without using a pulse switch.
- For testing purposes.
- In the event you have a pulse switch failure and need the wash to continue operating as if the switch has not failed.

If you choose “Yes” it’s recommended that you adjust the speed of your conveyor prior to making any changes to the pulse simulator. Adjusting the speed of the conveyor after setting the simulated pulse will cause the timing of your equipment not to come on or off at the right times.

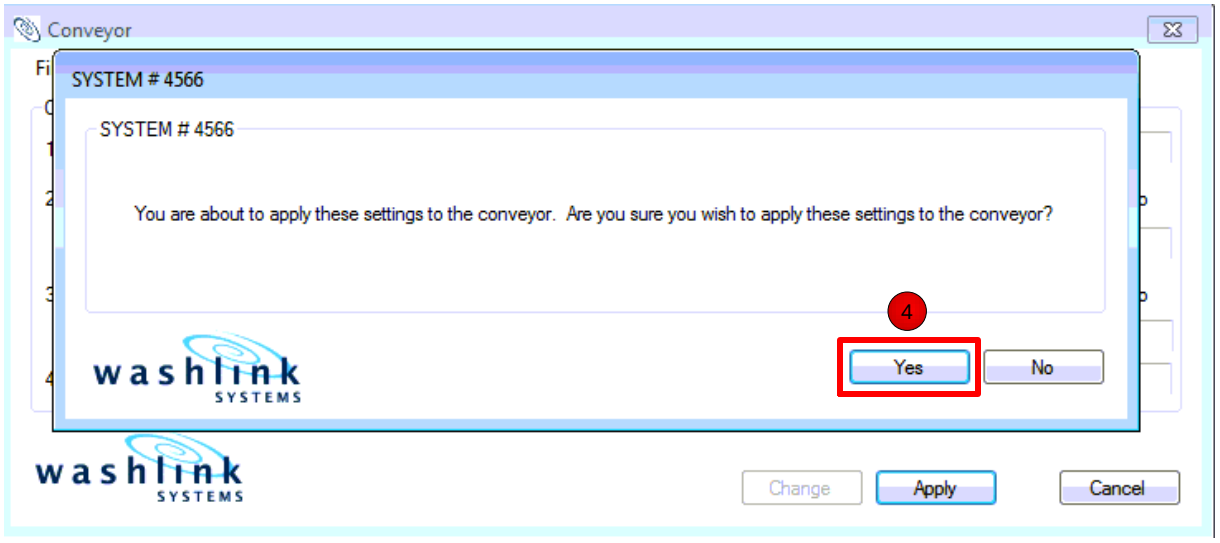
- The default setting in 3a) Time between pulses is 0.34.
- Changing the setting will be done by eye.
- Run a vehicle thru the wash and determine if the last arch in the tunnel is coming on to soon or to late.
- Make very minor changes to “Time between pulses” to get the final arch to come on at its correct time.
- Below is an example of how you might adjust the “Time between pulses” if the equipment is coming to late or to soon.
- Adjust as needed and enter the correct number in the “Time between pulses” box. This is done by trial and error method. Remember to make minor changes.



9 Simulating the pulse switch continued



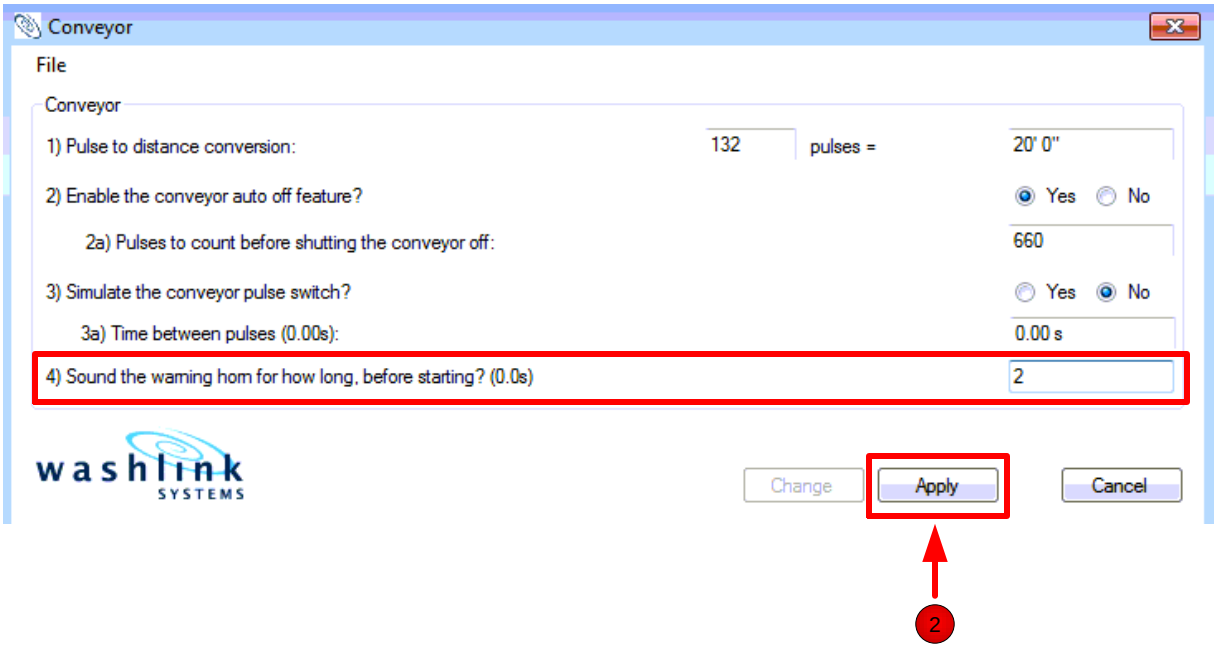
1. Set to “No”
2. Leave empty
3. Press the “Apply” button



4. Press the “Yes” button to apply the changes.

10 Warning horn

- You must have a working horn function enabled. It is an OSHA requirement to sound the horn prior to starting machinery.
- We're setting it for two (2) seconds.
- Two (2) seconds after the warning horn sounds the conveyor will start.
- The Washlink Systems default is 1.5 seconds. You may set this to your liking.



1. Set to your desired amount of time
2. Press the "Apply" button

11 Appendix

Notes: