



DRY N'SHINE SONAR PHOTO-EYES INSTALLATION MANUAL

Part # 7DRNSRDYSGLO001

FOR DRY N'SHINE SINGLE TOP AND THREE WHEEL SYSTEMS

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Suggested Installation Tools and Materials

- | | |
|---|---|
| <input checked="" type="checkbox"/>  Cordless Drill 1/2" | <input type="checkbox"/> 6 Foot Step Ladder |
| <input type="checkbox"/> 7/8" (1/2" NPT) Hole Saw Drill Bit | <input type="checkbox"/> Misc. Hand Tools |

Notes and safety Symbols

Where necessary, important points will be highlighted in this manual, using the following symbols:



NOTES: PROVIDES FURTHER INFORMATION!




STOP! PRECAUTION TO TAKE TO AVOID EQUIPMENT MALFUNCTION OR ERROR!

Always follow all "Notes", "Warning" and instructions. Not doing so may have serious consequences on the overall performance of the washing equipment and/or the safety of the people working on the equipment!

Installation Instruction

The purpose for the kit is to replace the SONAR READY signal from the cw controller to free standing photo-eyes. The SONAR READY signal being currently send by the cw controller may, at time be "OFF" with the vehicle being wash (like when the vehicle skip a roller during the washing process) and timing-out a few of the Dry N'Shine safety features, creating possibility for the Top Wheel to get "stuck" in front of a large oversize truck for example. The photo-eyes, located under the sonar sensor will generate the SONAR READY signal to the Dry N'Shine control box and insure that the signal will be in sync with the vehicle, allowing your Dry N'Shine different safety features to perform consistently for each vehicle.

-  **Open** all boxes and crates and verify that you have all the required components.



Pic #1: Receiver Photo-Eye Assy

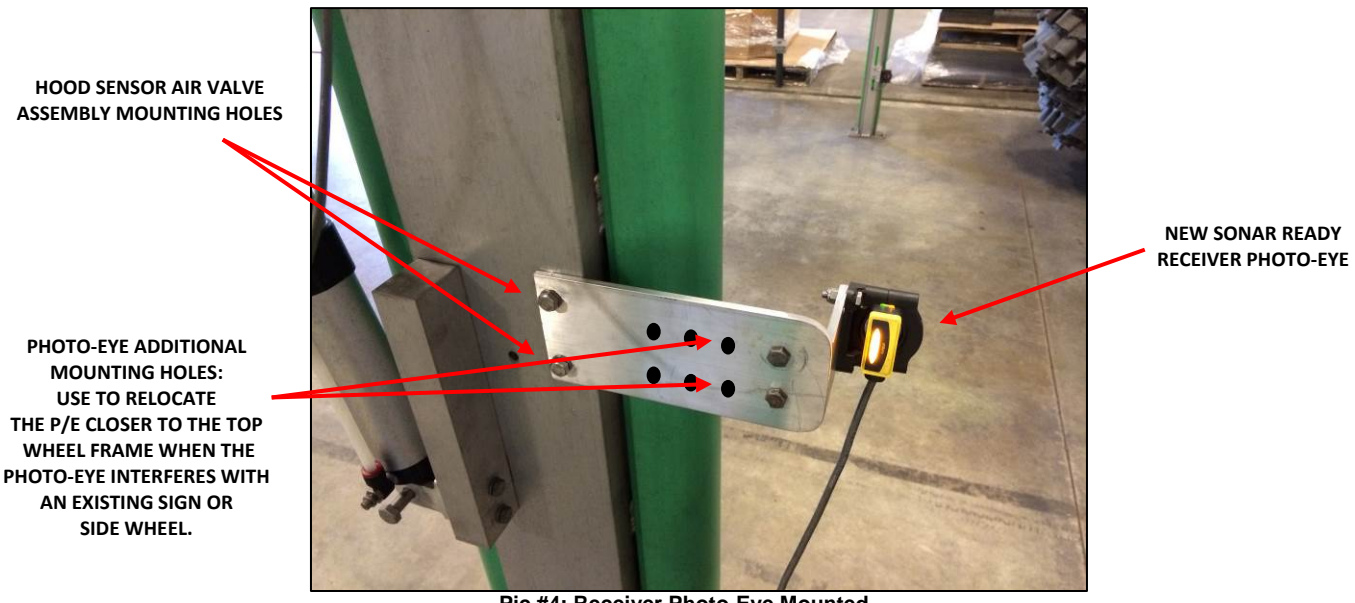


Pic #2: Emitter Photo-Eye Assy

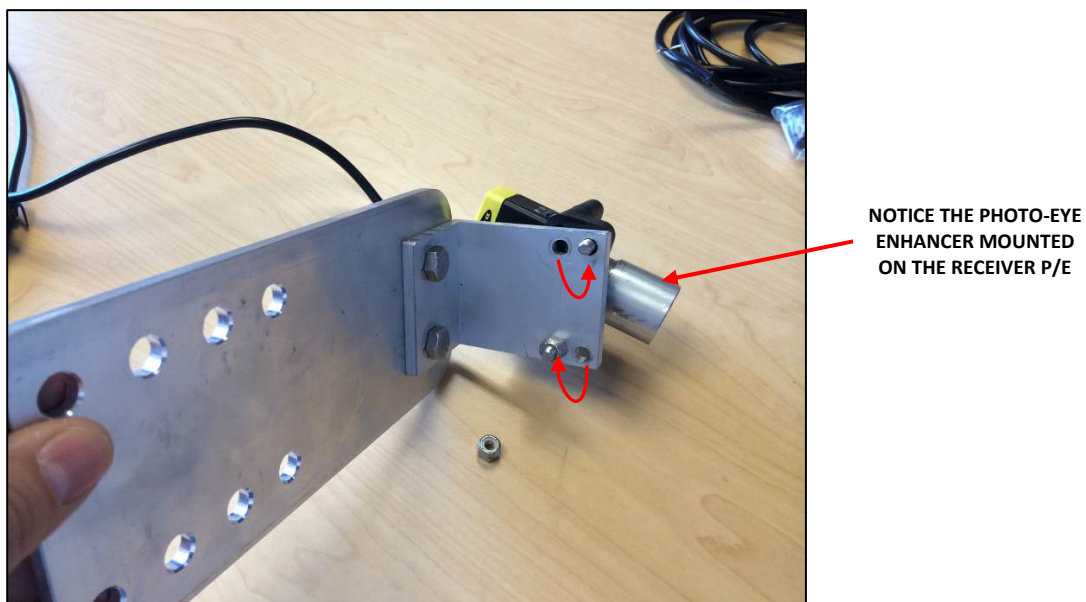


Pic #3: Connector

- **Turn** the power OFF to your DRY N"SHINE system as well as your car wash controller.
- **Mount** the DRIVER SIDE receiver photo-eye assembly on the ENTRANCE SIDE of the TOP WHEEL FRAME with the eye pointing downward using the HOOD SENSOR AIR VALVE ASSEMBLY mounting holes (see Picture #4 below).



NOTES: IF YOU DRY N'SHINE TOP WHEEL IS INSTALLED ON THE PASSENGER SIDE OF THE WASH BAY, YOU WILL NEED TO REMOVE AND REINSTALL THE PHOTO-EYE MOUNT USING A DIFFERENT SET OF MOUNTING HOLES IN ORDER TO KEEP THE RECEIVER PHOTO-EYE IN A DOWNWARD POSITION SEE PICTURE #5 BELOW.



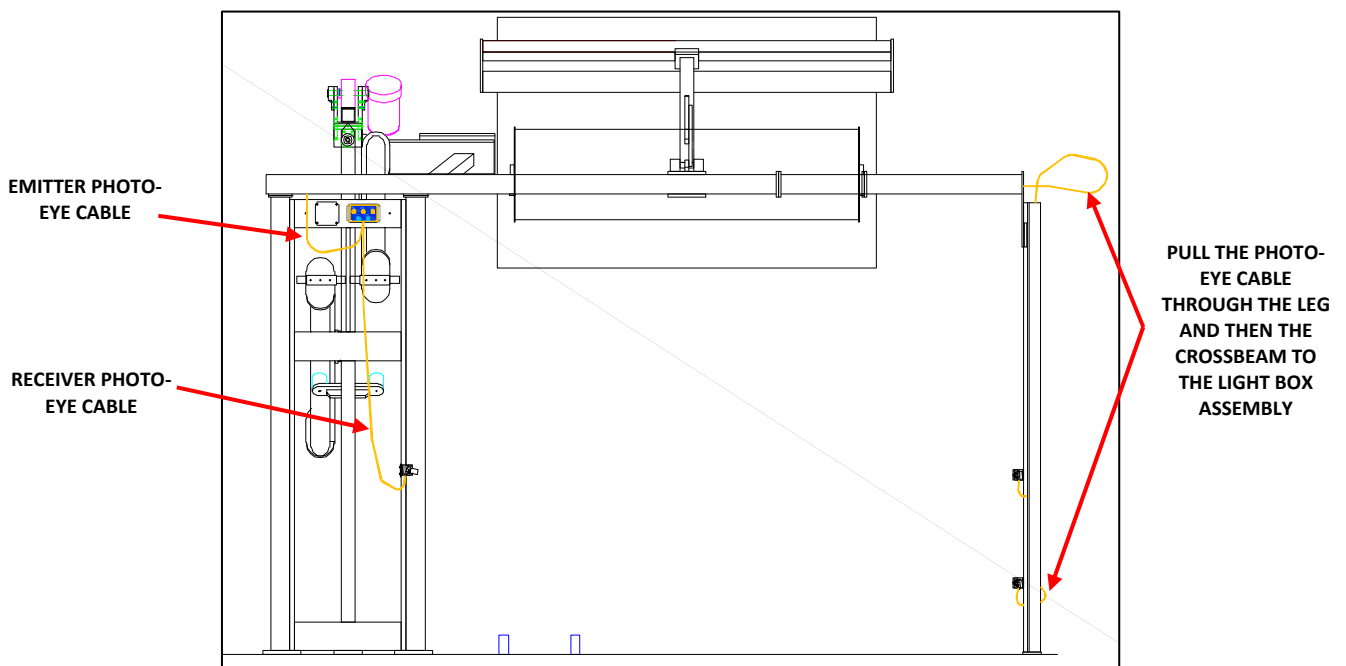
- **Mount** the PASSENGER SIDE emitter photo-eye assembly on the ENTRANCE SIDE of the crossbeam leg from 12" to 15" off the floor with the eye pointing upward (see Picture #6 below). If you have a PASSENGER SIDE TOP WHEEL, change the orientation of the PHOTO-EYE by relocating the mount like shown on Picture #5.



**NEW SONAR READY
EMITTER PHOTO-EYE
MOUNTED ON ENTRANCE
SIDE OF THE LEG**

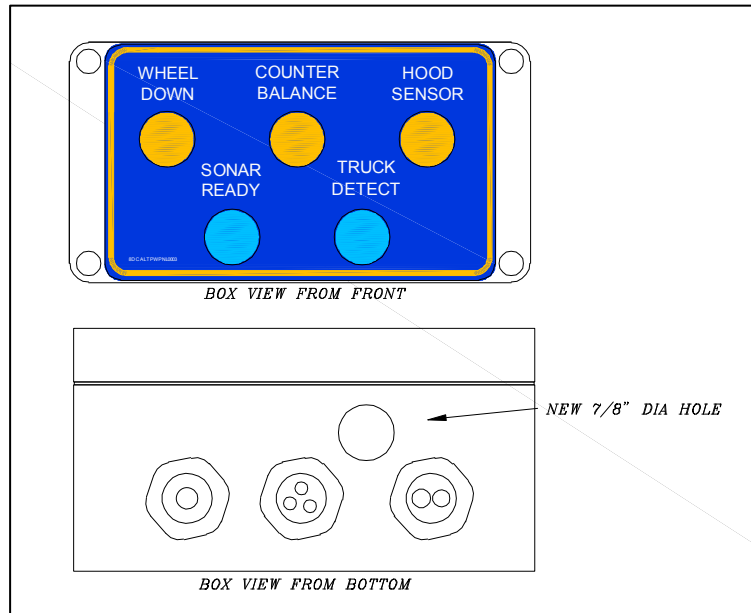
Pic #6: Emitter Photo-Eye Mounted

- **Pull** the EMITTER PHOTO-EYE cord through the cross beam up to the TOP WHEEL LIGHT BOX assembly (see Picture #7 below).



Pic #7: Emitter Photo-Eye Cable Trough Crossbeam

- Open** the TOP WHEEL LIGHT BOX and drill a 7/8" (1/2" NPT) diameter hole in the bottom like shown on picture #8 below.

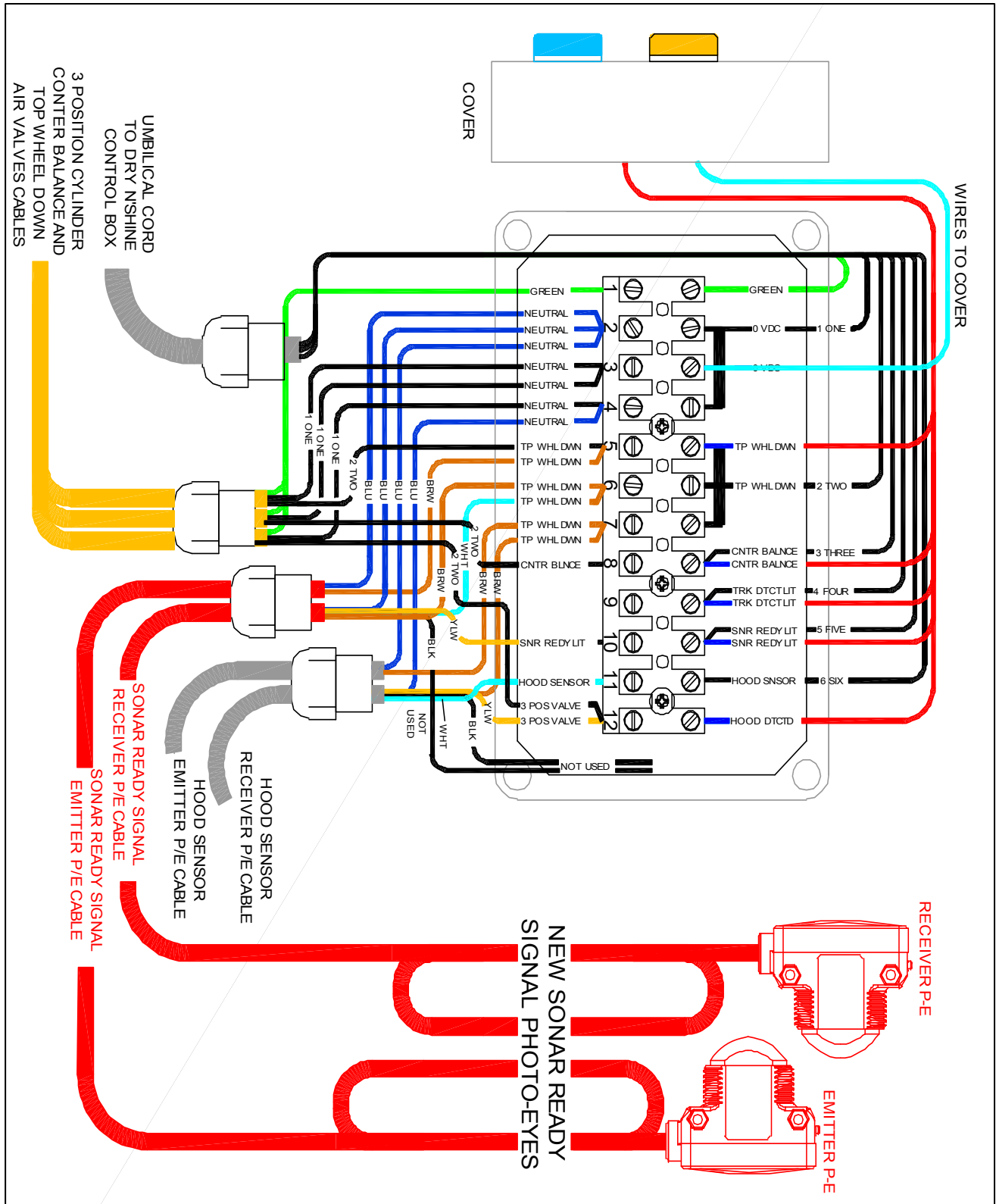


Pic #8: 1/2" NPT Hole



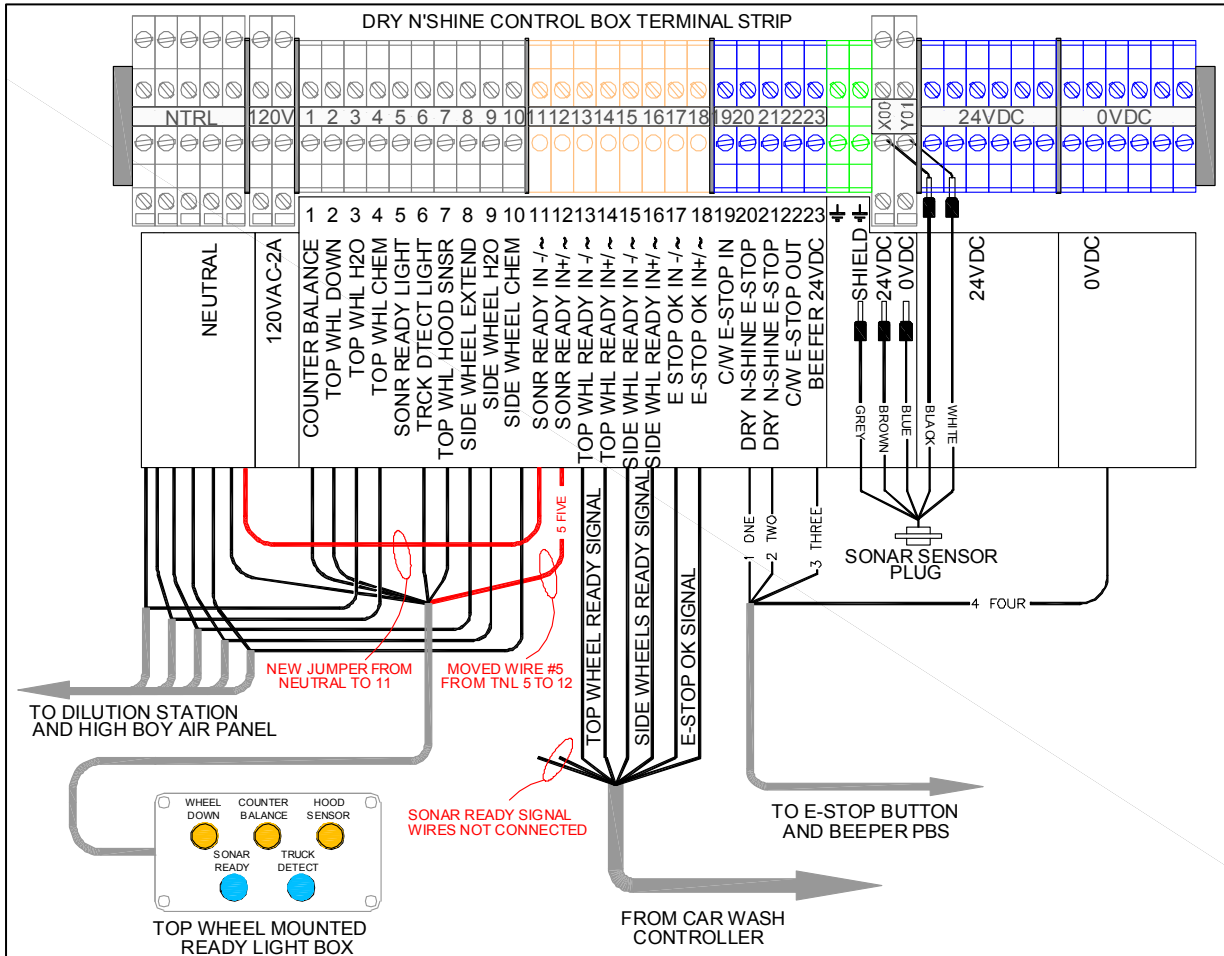
STOP!
BEFORE DRILLING INTO THE BOX, MOVE THE WIRES AWAY FROM THE AREA OF THE HOLE. ANY DAMAGE TO INTERNAL WIRING MAY AFFECT PROPER OPERATION OF YOUR DRY N'SHINE AND WILL LEAD TO EQUIPMENT AND/OR VEHICLE DAMAGES.

- Install** the supplied cord grip connector and pull both photo-eye cables through the connector into the box.
- Connect** both photo-eyes supply wires **BROWN** and **BLUE** to the **TOP WHEEL DOWN** air solenoid valve and neutral terminals like shown on Picture #9.
- Connect** the **RECEIVER PHOTO-EYE YELLOW** wire to SNR REDY LIT terminal #10.
- Connect** the **WHITE** wire to TP WHL DWN terminal #5, 6 or 7.
- Leave** the **BLACK** wire unconnected and push it on the side of the box with the other **BLACK** (not connected) wire.
- Close** the box. Pay particular attention to the wires: fold the wires back into the box before closing. Do not pinch any wires between the cover and the box!
- Inspect** both photo-eyes and visually confirm that both are lined-up and looking "straight" at each other. Adjust as needed.

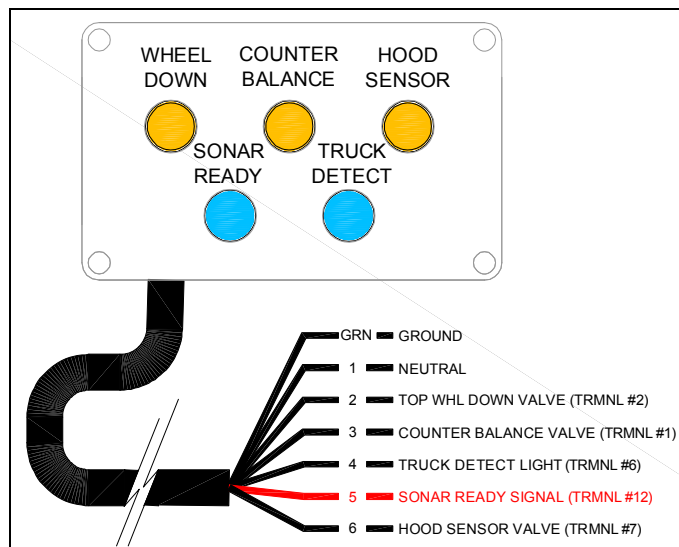


Pic #9: Photo-eyes Wiring Diagram

- **Disconnect** the two wires coming from the car wash controller from terminal 11 and 12 (see Picture #12), insulate each wire with wire nuts and push them aside in the box.
- **Disconnect** the Top Wheel umbilical cord wire #5 from terminal 5 and reconnect to terminal 12 (see Picture below).
- **Finally**, install a jumper wire from one of the **NEUTRAL** terminal to terminal 11 (see below). Terminal 5 will remain w/o any wire connected.



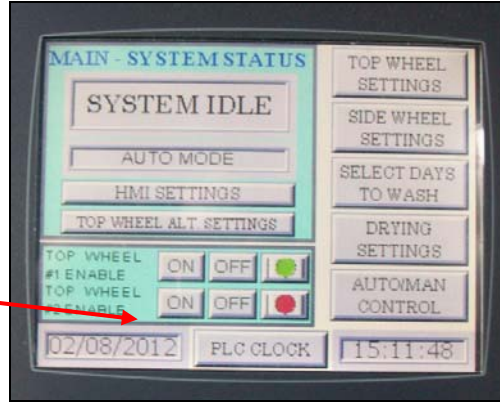
Pic #12: Upgraded Dry N'Shine Control Box Wiring Diagram



Pic #13: Umbilical Cord Up-graded Wiring Diagram

- Turn the power back ON to the Dry N'Shine control panel as well as to the car wash controller. Go to the **MAIN SCREEN** and enable top wheel #1 (see below).

ENABLE TOP WHEEL #1 BY PUSHING OFF BUTTON



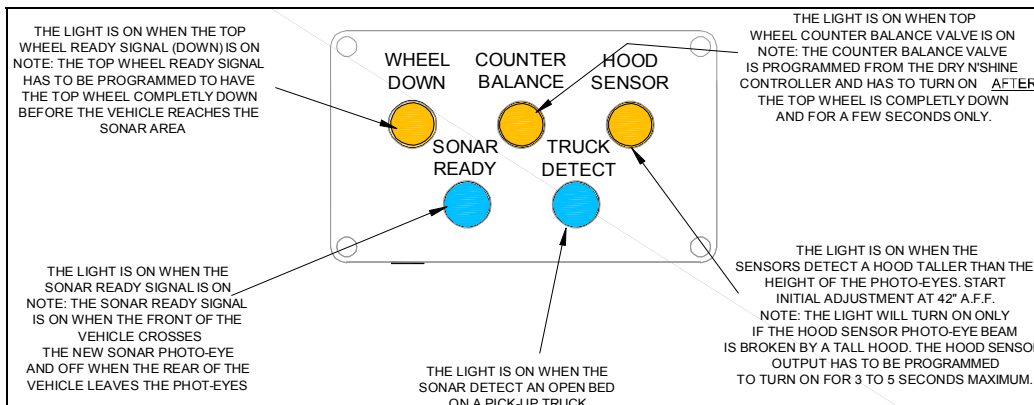
Pic #14: Dry N'Shine Main Screen

- Turn the **DRY N'SHINE TOP WHEEL READY SIGNAL** function **ON** at the car wash controller. Observe the top wheel come down and running. Confirm that the new **SONAR READY PHOTO-EYES** are lighted **ON**. If any of the two photo-eyes light are not **ON**, check wiring and connection. If the receiver light is not **ON**, make sure the emitter and the receiver are perfectly line-up into each other.



Pic #15: Photo-eye Light ON

- Notice the **WHEEL DOWN** light **ON** at the **LIGHT BOX**. Block the receiver photo-eye with your hand observe the photo-eye light turning **OFF** and the **SONAR READY LIGHT** turned **ON** (see below). Observe the **COUNTER BALANCE** light turn **ON** after a few second. Unblock the photo-eye than block it again and while keeping the **SONAR READY** photo-eye blocked, block with your hand the **HOOD SENSOR PHOTO-EYE** and observe the **HOOD SENSOR** light turn **ON** and the **TOP WHEEL LIFTING** to a higher position for high hood truck.
- Finally, test with a vehicle and adjust **COUNTER BALANCE**, **SLOW DOWN** and **HOOD SENSOR** timing in **DRY N'SHINE** controller if needed.



Pic #16: Light Box Fundamentals

Warranty and Return Procedure:

Motor City Wash Works warrant this product to be free of defect in material and/or workmanship for a period of **one year** from the date of the purchase by the customer from MCWW. During the warranty period MCWW will at its discretion, at no charge to the customer, repair or replace this product if found defectives, with a new or refurbished unit, but not to include costs of removal or installation. Any product returned to MCWW for warranty has to have a **Return Material Authorization Number**. All shipping cost to MCWW is assumed by the customer. This is only a summary of **MCWW Limited Warranty**. Please, communicate with MCWW for our complete warranty.

Prior to returning any product to MCWW, the customer must call in for **Return Material Authorization Number** and a copy of our **Return Material Authorization** Form filled and completed. The **RMA** number must be written clearly on the outside of the shipping package and copy of the form must be included in the package.