## Electrical Pickup using Copper Collars Maintenance. (May 2021)

Over time copper will oxidize causing interference with electrical conduction. This can result in dimming , intermittent and stalling of the LED lighting.

To overcome this problem periodic maintenance is recommended. This involves removing the wheels from the trucks (1), separating the wheel from the axle (2), cleaning the wheel axle (4) plus cleaning the interior of the collar (6) with track cleaner, alcohol or mineral spirits (3). The inner surface of the collar can be abraded with a round file (5).

When reconnecting the collars make sure the insulated sides of the wheels are set opposite one another (7). Test the lighting with the carriage on the track (8).

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1.Gently separate the wheel axles from the hub. A flat blade screw driver might be required on metal trucks.	2. Check for the insulated wheel with the black plastic bearing Twist off the wheel and remove the collar from the axle	3.For cleaning use either track cleaner, isopropyl alcohol or mineral spirits to clean the axle and collar interior.
4.Use a Q tip or pipe cleaner to clean the axle.	5.A round file can be used to abrade the inside of the copper tube	6.A pipe cleaner or modified Q tip soaked in cleaners can be used in the clean out the tube.
Witters	<ul> <li>7.Reattach the collar and the wheel onto the axle.</li> <li>Check the wheel width for the track and reinsert the wheels onto the truck. Make sure the insulated wheels are set opposite one another.</li> <li>Mark the insulated side of the collar with black marker</li> <li>8. Test the lighting on the track</li> </ul>	www.modeltrainsounds.com