

# Cleaning and Maintenance

## ***Why is it important to clean my track on a regular basis?***

The constant operation of trains on any layout will create a carbon dust build up on the wheels of the trains and also the rails of the track. This carbon build up must be managed by frequent cleaning of both the rails of the track as well as the wheels on the train cars and locomotives. The frequency is dependent on the amount of time the trains are in operation. We recommend doing a weekly inspection of the track to determine the rate of the carbon dust build up which will help you establish maintenance and cleaning schedule that is right for your layout.

## ***What might the result be if I don't establish a maintenance and cleaning schedule for my layout?***

If the carbon dust is not cleaned frequently the performance of the trains on the track will suffer. The buildup of carbon will ultimately prevent the locomotive from smooth operation, by interrupting the power collection from the outside wheels (AC ground) and the center rail collectors (AC hot). When the buildup of carbon is not addressed, undesirable operation may occur, where trains will stall out on the track and cease to operate.

## ***What type of cleaning agents do you recommend for cleaning your layout?***

We recommend using an all-purpose cleaner with a citric base. We recommend a citric based cleaner because it does not degrade the metal rails nor does it cause poor electrical connectivity between the rails and the wheels of the train. Alcohol based cleaners should be avoided since they tend to degrade the electrical connectivity of your trains.

## ***Since I now know what type of cleaner is recommended, what are my next steps to successfully clean my layout?***

- Saturate a rag with your desired multi-purpose cleaner (*preferably a citric based cleaning product*)
- Wipe down your layout, focusing on the rails.
- Once the cleaner has been applied, follow by wiping the rails again with a clean, dry rag to absorb the excess cleaning solution and carbon deposits from the rails.

We recommend that you establish the same cleaning intervals for your cars and locomotives as you establish for your track. The easiest way to clean the carbon from freight car wheels is to use cotton swabs.

- Saturate one end of the cotton swab with the same cleaner and wipe the entire rolling surface (and flange face) of the wheel with the saturated end.
- Repeat the process with a couple cotton swabs with dry cotton to absorb excess cleaner and carbon deposits from the wheel.  
*See photos.*



Locomotives are much easier to clean, if you can lay the locomotive up-side-down in a foam cradle and apply power to the locomotive. This will make the wheels of the locomotive rotate. The same method is employed to clean the wheels on a locomotive, wipe them down with soaked cotton swab to loosen the carbon, next wipe the excess cleaner and carbon off with a dry swab. Repeat this process until the carbon no longer appears on the cotton swabs. The center rail collectors will need to be cleaned in the same fashion for both the locomotive and any train cars that are equipped with center rail collectors.

**Note:** *Cars and locomotives that sit stationary on sidings and are non-operational do not need to be cleaned. They are merely stationary display items and have no impact on generating carbon.*

Cleaning the wheels of the locomotives and train cars will help reduce the cleaning intervals, as all the excess carbon will be removed from the rails and the operational trains, thus eliminating the carbon. Frequent maintenance will still be required, but intervals between cleaning will be extended.

## ***Preventative Maintenance***

Once the carbon is cleaned off the train car wheels and locomotive wheels and collectors it is a good idea to perform preventative maintenance by oiling axles on all the train cars, specifically where the axles contact the side frames (and at any point where the axles come in contact with other metal and plastic). We recommend using the oil from the Lionel Lubrication and Maintenance kit (Lionel product number 6-62927). Oil should also be applied to any moving parts, such as side rod screws, eccentric cranks, on steam locomotives, power truck axles (where they ride in the bearings, gears, etc.) Be sure to apply a sparing amount of oil to the axle of each collector as well.

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