

TMC Project Peds Train Operation

Presented herewith are the steps to be taken in operating and maintaining the trains installed by the Tucson Garden Railway Society (TGRS) in the Pediatrics Patio. In the event that a situation arises that is not covered by these instructions, please contact Norman Ulmer, Project Manager for TGRS, at 520-299-9401.

The power for the train operation is controlled by a keyed switch, located at the South end of the West wall of the patio. This should be turned on in the morning, and off in the evening of each day, seven days a week, at times of your determination.

The trains and trolley operations are controlled by the push button switch located on the crossbuck sign by the gate. The upper button of the three buttons, when pushed, will cause the steam engine and it's cars to leave the big red train shed, and run for two circuits of the track. The middle button will activate the trolley car, and it will travel from the station in the town area to the circus area station, where the trolley will pause for a few seconds, then return to the town area, and it will do this twice with each push of the center button. The lower button will activate the diesel engine and it will pull it's cars around the track twice each time the lower button is pushed. The controls are set to preclude both trains from running at the same time.

It is recommended that the track be polished at least once a week, preferably Monday morning, using the pole sander located behind the big red train shed on the South side of the layout. If at any time during the week should either of the trains or the trolley run erratically, It is probably due to dirty track, and this can be cured by polishing the track with the pole sander. The sanding pad should be replaced monthly, and to facilitate this, there are packets of sanding pads inside the upper level of the train shed. To access these, simply lift off the roof of the upper level of the shed. The track must be polished inside the train shed as well as outside, and in order to do this, you will need to first do the outside track, then start the train, and as soon as it has cleared the shed, stop the train using the on-off switch on the large transformer on the left side of the upper level of the shed.

Once the train is stopped, remove the roof from each end of the lower section of the train shed, and you will be able to access the track inside for polishing.

While the train is running, there will be occasional minor problems arise. One such problem will occur when the front wheels of the steam engine come off the track. This can be caused by objects such as gravel or leaves on the track, so it will be necessary to inspect the track for any obstacles and remove them. Another possibility is that there is a section of track that is not level (someone has stepped on it, or rain has washed away the ballast under the track), in which case, you must re-level that section. Once the cause of the de-railment has been determined, simply reset the engine's wheels on the track, and continue running.

Another possible problem arises when several cars become disconnected (uncoupled) from the train. When this occurs, stop the train, bring the disconnected cars up to the last connected car, and reset the adjoining couplers to the open position, This is done by pushing up on the drop bar located behind the knuckle of the coupler, making sure the coupler is open. Once both couplers are open, push the disconnected cars up to the connected car, making sure the couplers are aligned, and they should reconnect. You can verify the connection by feeling the couplers to see if the drop bars have fallen into place. When you are satisfied the recoupling is complete, you may restart the train.

Occasionally, a coupler will fail to operate properly, and need to be replaced. This can be done by turning the car upside down, removing the screw that fastens the offending coupler to the wheelset (truck) drawbar, remove the old coupler and replace it with a new one, being sure the centering rod is inserted in the drawbar block. There are new couplers in a plastic bag in the upper section of the train shed.

From time to time, you may need to add ballast (gravel) to the track, due to rain wash out, or whatever. A bucket of the ballast has been provided, along with a scoop, 4" inexpensive paint brush used to spread the ballast, and a small level.. Using the scoop, place a small amount of ballast between the rail in the section where needed, place the small level across the rails, and raise the low rail until the bubble in the level is centered. Then use the brush to spread the ballast evenly along the track, being sure that no ballast remains above the top of the ties, nor is

piled up along the inside of the rails, as this will cause the lead (front) wheels of the steam engine to jump off the track.

About once a month (earlier if a squeak develops), the steam engine will need to be lubricated. TGRS will endeavor to handle this function initially, and will train your folks in the procedure at that time. The diesel engine does not normally need lubrication. Should a car develop a squeaking wheel, DO NOT attempt to lubricate it with any liquid oil product, as this will attract dirt and cause the wheelset to fail. Instead, use powdered graphite,

Daily attention to removal of leaves and other debris from the track, along with a single operation of each train and the trolley to assure proper operation is a must. Care must be taken not to step on the track in order to maintain good running conditions and avoid unnecessary repairs.