

Suggested Xmas Procedure 2019

Setup for Run

- **PREPARE TRACK**
 - Walk the selected track route being used to look for and clear track of debris.
 - Check to make sure all switches and turnouts are in the correct position and locked in.
 - Track route is the "School Bell Route", switches and turnouts set to YELLOW position.
- **PREPARE LOCOMOTIVES**
 - Check oil
 - Check the oil level in the Loco's before starting.
 - If oil is not up to the FULL mark, add the 10W-30 oil(winter oil).
 - Unplug battery chargers.
 - 1932 – Locomotive charger.
 - 615 – Locomotive charger and Brake Controller charger.
 - Roll locomotives out of the Engine House.
 - Roll Loco 615 out of the building first.
 - Roll Loco 1932 out next so that it is in front of 615, and couple 1932 to front of 615.
 - Top off the gas tanks in the locomotives only while outside the building.
- **BUILDING THE CONSISTS**
 - Moving the locos to the storage tunnel.
 - Start and warm up 615, do not start 1932(leave bypass valve open).
 - Once 615 is ready to roll, use 615 to push and pull 1932 to the storage yard.
 - Set turnout at front of tunnel to go into the storage yard on pass thru siding.
 - Disconnect 1932 and push past turnout that leads into B&O Consist.
 - Move 615 on to lead to connect to PENN Consist.
 - Hooking up the consists.
 - Prepare the B&O(blue cars) Consist.
 - In the after compartment of the Engineer's car is the Main Battery, disconnect the charger cable from the battery and plug the battery cable into the power cable.
 - In the forward compartment, disconnect the charger cable for the Brake Controller at the SAE weatherproof connector. This will make it easier to plug in later.
 - **NOTE: the Knob is only used for changing the Parameters in the Brake Controller. It does nothing in normal operation. Procedure to change Parameters is at end of this document.**
 - Connect the 1932 locomotive to the riding cars.
 - Turning on power to Consist(MUST be done in this order).
 - First, turn on MAIN power switch.
 - Second, turn on Brake Controller.
 - Turn on Light switch when lights are needed.
 - Prepare the PENN(orange cars) consist.
 - Get the smaller, Lawn and Garden battery from the Engine House. Place it in the forward section of the Conductor's Car.
 - Connect the battery to the temporary power cable. This cable plugs into the connector on the rear of the last riding car. Make sure there is a little slack in the cable when closing lid. There isn't a switch yet, so plug in the battery when lights are needed, unplug when not needed.
 - Connect the 615 locomotive and Engineer's Car to the consist.
 - Connect the brake hose to the first riding car.
 - Turn on Brake Controller.

- NOTE: this train has brakes and lights only. The Conductor's E-Stop button will be added soon.
- ROLLOUT
 - If turnouts are set correctly, the trains will go directly to the mainline in the grove in the Counterclockwise direction.
 - Once train(s) have passed the turnout on the outer grove loop, set the turnout to the mainline position so to minimize wear on the points.

RETURN TO THE BARN

- Reverse the ROLLOUT steps to bring trains back to storage tunnel.
 - Run the train past the turnout that crosses over to the inner grove loop near the west end of the Summer Loading station.
 - Set the turnout to direct the train onto the inner grove loop.
 - Back the train into the storage yard, set turnouts to direct the riding cars to a siding in the tunnel.
- Before disconnecting cars and locomotives, make sure to release the brakes.
- Power down the electrical system.
 - Power down the Brake Controller's first!
 - Power down lights
 - Power off the Main Switch
 - **Failure to perform above sequence will cause the brakes to be set!**
- Disconnect brake hose from 615 Engineer's Car.
- Disconnect locomotives from riding cars
- Once riding cars are in tunnel
 - 1932 Engineer's Car.
 - Disconnect Main Battery cable in after compartment from power cable.
 - Connect Battery charger cable to BATTERY(not the power cable).
 - Connect Brake Controller Battery charger to Brake Controller in forward compartment.
 - PENN riding cars.
 - Unplug battery from temporary power cable in Conductor's Car.
 - Take out battery, and put in Engine House and plug in a charger.
- Return Locomotives to the Engine House.
 - 1932 is put into Engine House first.
 - 615 and Engineer's Car is put in last.
 - Battery Chargers
 - Plug in a battery charger into 1932, check charger to see if charging light is on.
 - Plug in a battery charger into 615, check charger to see if charging light is on.
 - Plug in the battery charger cable to the Brake Controller in 615. **Unplug the AC wall wort and then plug it back in to start the charger.**

Setting Integral Systems Brake Pressures

The Integral Systems Brake Controller(Grey Box in 1932 Engineer's Car) is a digitally controlled braking system. The unit has 2 selectable brake pressures, "Normal" and "Emergency" brake pressure. The pressures should not need to be set unless the programmed pressures are to be changed, or the Box "forgot" the values. The following procedure will allow you to program the pressures. The pressures are programmed using the Blue button on the top of the Controller along with the Knob.

- Programming Procedure
 - Turn on Controller.
 - Press and hold blue button down until display shows a number on the top line, and parameter name on the bottom line.
 - The first parameter is the Normal brake pressure. Use the Knob to set the number in the top line to 40. This is the current Normal brake pressure.
 - Press the Blue button, and the display will show "Confirm" on it. Press Blue button again to save pressure value.
 - Now the display will show a number on the top line, and "Emergency" on the bottom. Rotate Knob until number changes to 50. This is the E-Brake pressure.
 - Press the Blue button, and the display will show "Confirm" on it. Press Blue button again to save pressure value.
 - Display should return to normal status display.
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