GE E-33

SIMULATION CONSIDERATIONS

INTRODUCTION

Many thanks for purchasing the GE E-33 for Train Simulator 2017.

This small manual addresses only simulation considerations, to see aspects relating to the operation of the locomotive, please read the *Operating Manual* which is included in the pack.

HISTORY

GE delivered 12 locomotives, numbered 130–141, to the Virginian between October 1956 and January 1957. The locomotives performed well in freight service and the Virginian retired the EL-3As as planned. The situation changed dramatically in December 1959 when the long-discussed merger between the Virginian and the Norfolk and Western Railway occurred. The routes were largely parallel, and the N&W had scrapped its own electrification scheme in 1950. The N&W renumbered the EL-Cs 230–241 and kept them running, but change was coming. The N&W routed only eastbound traffic over the former Virginian, with all westbound traffic going over the N&W main line. The electrification system became surplus to requirements and was shut down on June 30, 1962.

N&W rebuilt one EL-C, No. 230, as a road slug, but the experiment proved unsuccessful. In 1963 the New York, New Haven and Hartford Railroad stepped in. The New Haven was lacking finance but in need of power to replace 1910s-era boxcabs on its electrification between New York and New Haven. The N&W sold all 12 locomotives, including the slug as a parts source, for $300,000. The New Haven designated the locomotives EF-4 and renumbered them 300–310.

ROLLING STOCK

General Electric E-33 in livery New Haven EF-4

Power type	Electric
Builder	General Electric
Build date	1955–1957
Total produced	12
Configuration: AAR	C-C
Configuration: UIC	Co'Co'
Gauge	4 ft 8 1⁄2 in (1,435 mm)
Length	69 ft 6 in (21.2 m)
Loco weight	174 short tons (158 t)
Electric system	11 kV AC 25 Hz

Current source	Pantograph
Traction motors	6 × GE Model 752
Loco brake	Dynamic
Maximum speed	65 mph (104.6 km/h)
Power output	3,300 hp (2.5 MW)
Tractive effort starting	98,500 lbf (438,000 N)
Numbers	300 - 310

New Haven 40 feet Box Car

New Haven NE-5 Caboose

MAIN KEYBOARD CONTROLS

TRAIN BRAKE HANDLE OPERATION

For a better simulation of the 24rl brake system this locomotive implements a notched train brake handle.

There are 3 methods to move the lever.

With the keyboard.

Use the standard keys to increment and decreament one notch each time the proper key is pressed.

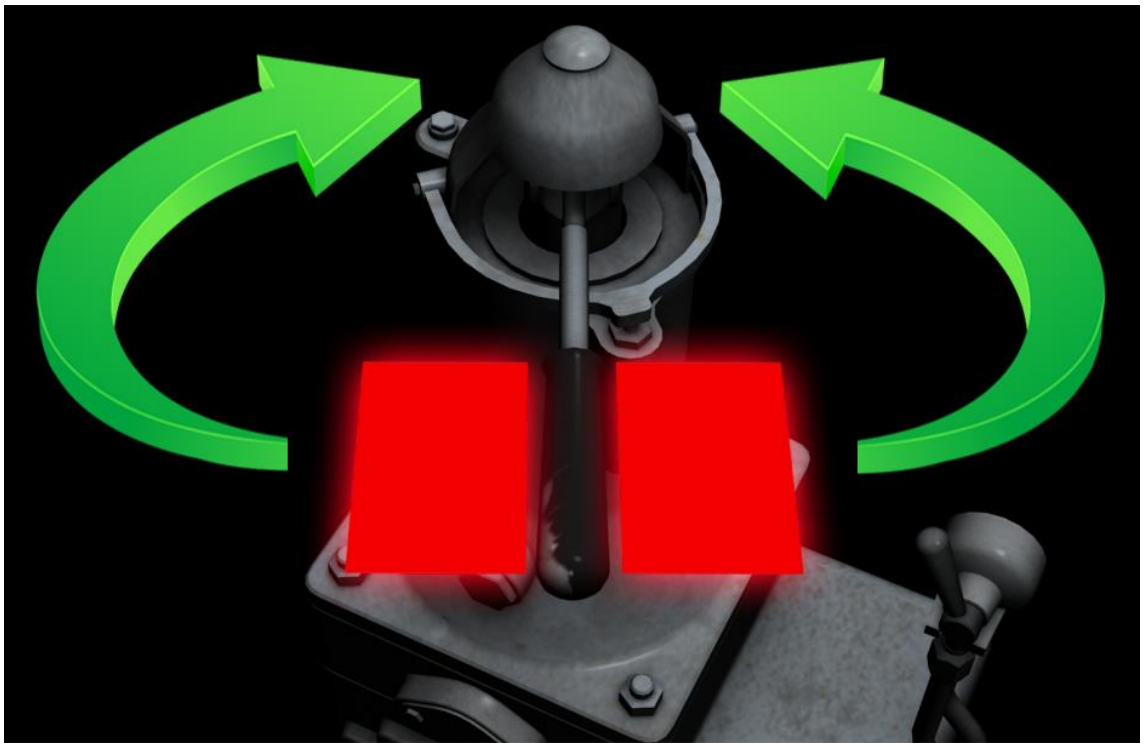
With the HUD.

Use the standar HUD control for braking, drag it up, to increment one notch, drag it down to decrease one notch. The control always will return to mid position.

Using the cab controls.

The handle has 2 virtual zones at both sides. Click on the desired zone to increment or decrease one notch. See the image below, the virtual zones are highlightened in red.

Each time you move the train brake handle, you will see a message indicating the name of the notch reached. However, a permanent check of the air needles is recommended.



Note: Be careful when you move the handle from any position to the Running position, it is easy to pass and reach the Release position which produces an undesired pipe overcharge. Use the Release position only to hurry the fill of the pipe after an emergency application or in any case where the pipe pressure has dropped to zero. When use this position be sure to return to the Running notch before the pipe pressure reachs 90 psi. See the Operating Manual for more details.

RELAYS CABINET DOOR

To open the relays cabinet door, click on both lock handles. See the image below.

Don’t forget to lock the door after closing it, otherwise, it will open and close due to inertia while running.

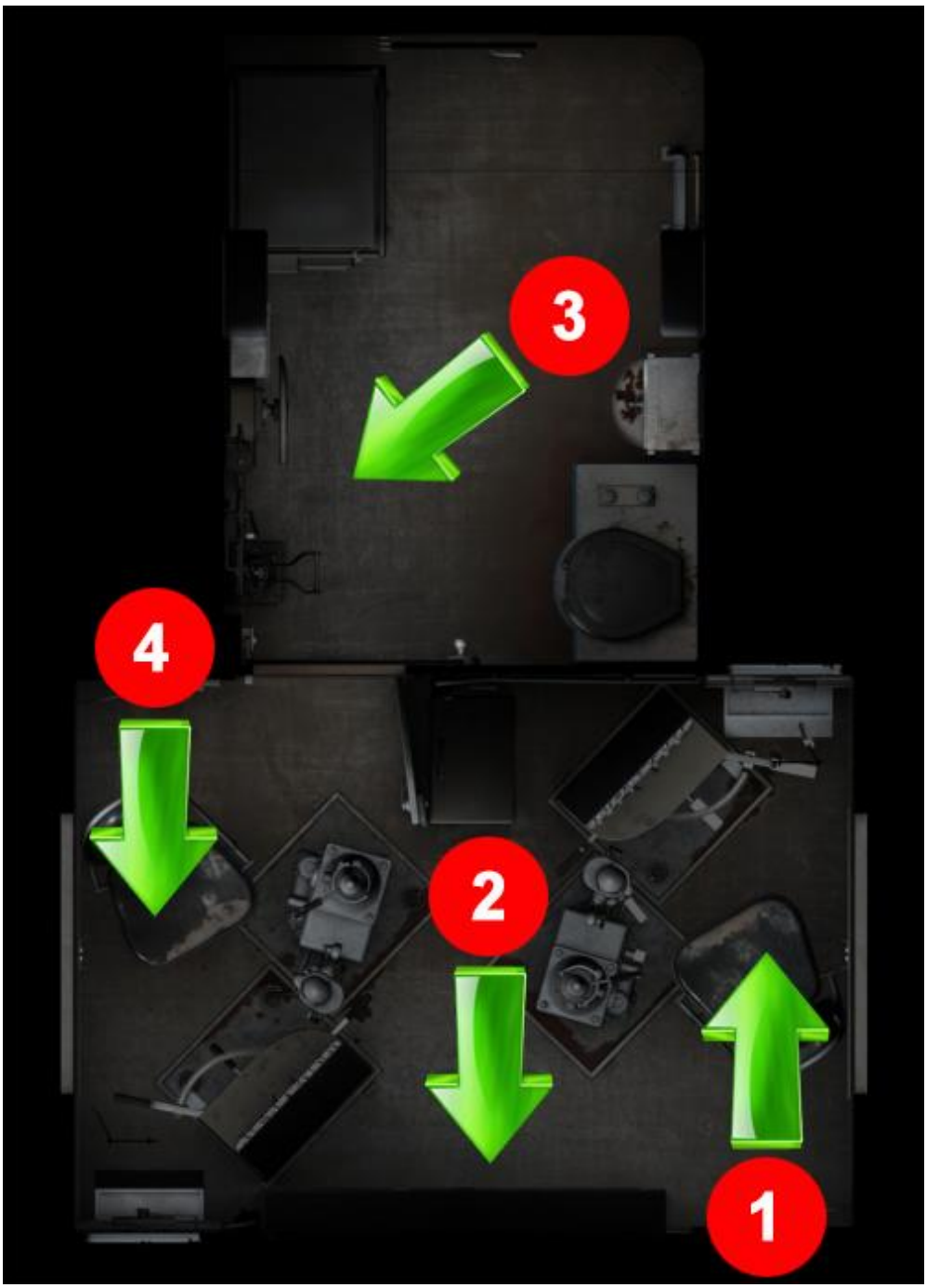
MANUAL AIR PUMP

Starting a scenario with the Cold & Dark version of the E-33 you will find a dry locomotive, without air pressure in the reservoirs. In order to get energy from the line and start the compressor you will need to raise the pantograph manually. You can use the mouse to drag the handle up and down repeatedly to create air pressure in the pantograph cylinders. Alternatively, you can use the keys J and K to get the same result. This is especially useful checking the progress of the pantograph raising in external view.

CAB CAMERAS

You have 4 points of view inside the cab. These are in order:

1. **In the main enginner position.**
2. **In front of the relays cabinet door.**
3. **Inside the nose room.**
4. **In the position of second engineer.**



INCLUDED SCENARIOS

HEAVY MAINTENANCE TRAIN

Heavy maintenance equipment being shifted from New Haven to Derby Sidings.

Prove your skills as a fully-trained E-33 engineer by hauling an extremely heavy train from New Haven to Derby Sidings. Can you be gentle with the throttle to avoid wheelslip and overcharging the traction motors? Can you stop the train at the exact spot? Go on, then. Give it a go! You start with 1000 points - let's see if you can keep them all until the end of the shift!

Start time: 07:30

Duration: 40 minutes

Weather: Foggy

Difficulty: Very hard

MIXED FREIGHT TO BRIDGEPORT

Mixed freight service between Stamford Yard and Bridgeport Yard.

After switching a few cars, make your way to Bridgeport with a mixed freight on an early morning duty.

Start time: 04:00

Duration: 60 minutes

Weather: Rain

Difficulty: Easy

STAMFORD TRASH

Moving trash between Stamford and New Rochelle.

You are in charge of a train full of trash, running between Stamford Yard and New Rochelle Yard, on a busy spring evening.

Start time: 16:45

Duration: 55 minutes

Weather: Cloudy

Difficulty: Medium

NEW CANAAN LONE RIDER

Stamford to New Canaan to rescue the local freight.

New Canaan's weekly freight needs assistance as the two GP9s have suffered a main generator failure, due to hauling the cars back to Stamford Yard and are unable to move - let alone hauling the train down the branch! Your engine is the only one available at Stamford, so as a hero Lone Rider you have been called to rescue the stranded train.

Start time: 10:35

Duration: 55 minutes

Weather: Clear

Difficulty: Medium

ACKNOWLEDGEMENTS

Reppo would like to thank the following people for helping to make this Locomotive.

RICARDO RIVERA - Art and scripting.

GARY DOLZALL – Main idea, reference and valuable data.

FRANCESC SABATE – Scenarios.

MIKE RENNIE - Valuable advice on brakes.

Thank you very much to all.

July 2017