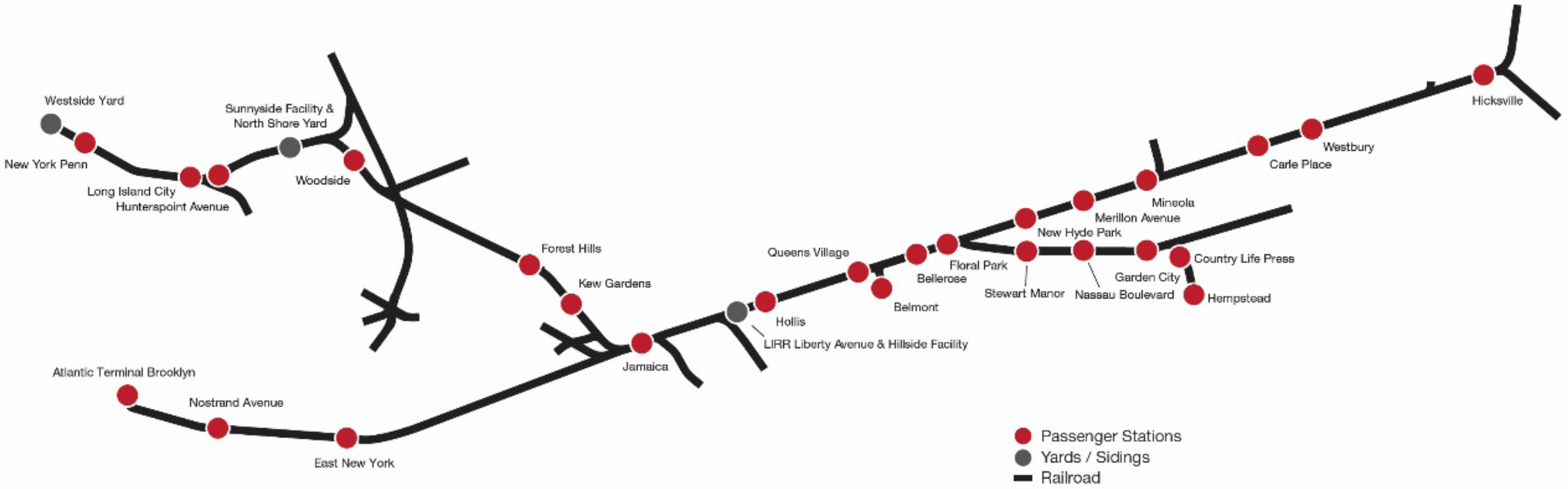
Long Island Rail Road

Release Version 1.0

Contents

Whilst we do our utmost to reproduce sounds that are accurate and true -to-life, sometimes these sounds may not completely tally with the user's expectation. Due to the nature of the simulation, it is often not possible to reproduce a completely accurate soundscape for a variety of reasons such as limitations with our current technology and occasional inability to gain meaningful access to the locomotives being created. You should therefore regard the audio reproduction for our locomotives as authentic interpretations rather than perfect recreations.

Long Island Rail Road Route Map & Key Locations

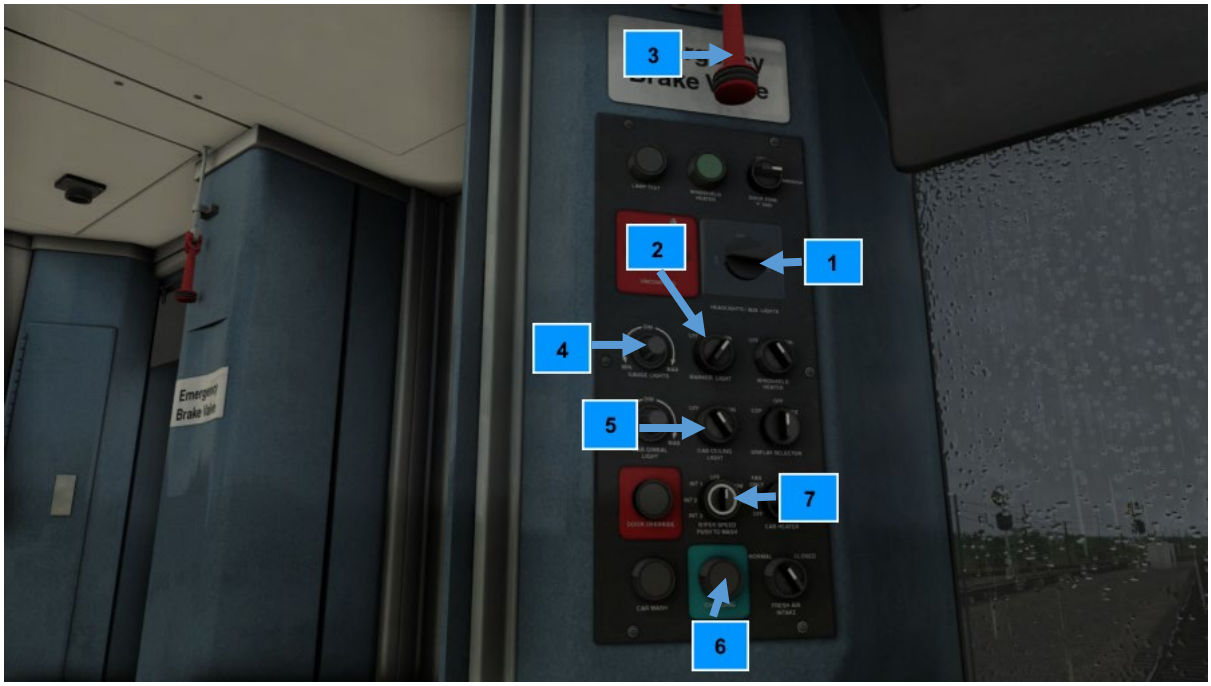


2 Rolling Stock

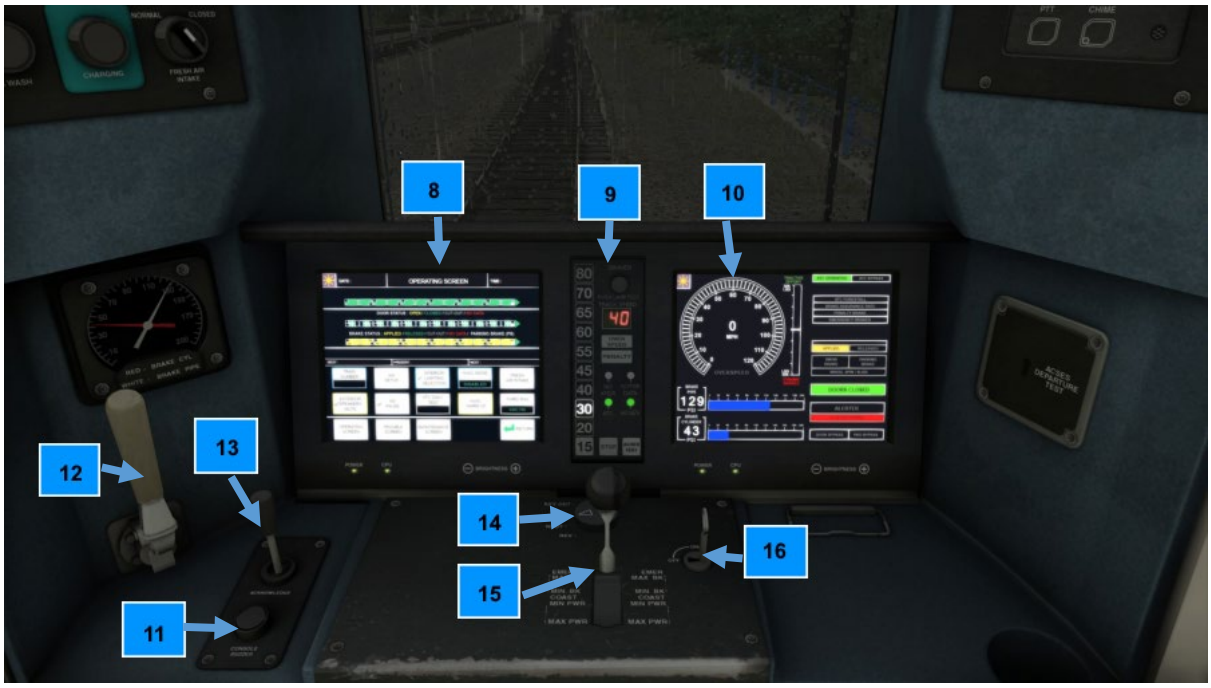
Long Island Rail Road M7

3 Driving the M7

Cab Controls



1	Headlight Switch	**5**	Cab Lights
2	Marker Light Switch	**6**	Train Brake Recharge
3	Emergency Brake Handle	**7**	Wipers
4	Gauge Lights		



8	Operating Screen	**13**	Alerter Reset
9	In Cab Signalling	**14**	Reverser
10	Speedometer	**15**	Master Controller
11	Console Buzzer	**16**	Master Key
12	Horn Valve		

Key Layout

Function	Key	Key
Decrease or Increase Throttle.	A	D
Move Reverser Forward or Backward.	W	S
Horn. Sound the horn's tone.		Spacebar
Half Horn. Sound the horn with a half tone.		N
Quick start. Pressing this will start the unit in a ready state with the reverser in neutral, brake pipe charged, and brakes set to maximum.		Z
Lights. Repeatedly pressing will cycle through headlight states where appropriate.		H
Alerter. The Alerter is a system used on some trains to ensure that the engineer has seen a signal. If the alert sounds (a black/yellow striped symbol is shown on the engineer's display), this must be acknowledged by pressing the Alerter button or the emergency brakes will be applied.		Q
Windscreen Wipers.		V
Emergency Brake. The emergency brake is accessed by pressing this button.		Backspace
Train Brake Recharge. Hold to charge the brakes.		;
Console Buzzer.		B
Cycle Destination.	F7	F8
Cab Light. Toggle the Cab light on and off.		L

Setting up the train

1) Turn Master Key to ON
2) Power Controller set to MAX BRAKE
3) Reverser button set to FWD
4) Press and hold TRAIN BRAKE RECHARGE button (to approx 126 psi)
5) Release brake and apply power

4 In-Cab Signalling and Alerts

The locomotive on this route features an in-cab signalling system.

Cab Signal Indicator

This device displays the Maximum Authorized Speed (MAS) to the engineer and works directly with ACSES (Advanced Civil Speed Enforcement System) and ASC (Automatic Speed Control) to control operations on the Long Island Rail Road.

On the left-hand side of the display, you can see the speed limits that are enforced by the in-cab signal system. When the train passes fixed signals for example, ‘Approach’, the valid speeds that can appear in this display are 40mph, 30mph and 15mph.

In the example image above, ACSES is enforcing the current maximum track speed of 60mph whilst the signal system is enforcing a maximum speed of 80mph. You must always obey the lower posted number. For example, if ACSES is displaying 80mph but the cab signals are displaying 40mph, your maximum allowed speed is 40mph.

The in-cab signal system will display a speed that conforms according to special instruction 1402-A shown below.

Cab Signal Indicator Aspect

Fixed Signal Name	80	70	65	60	55	40	30	15
Clear	X	X	X	X	X			
Approach Medium	X	X	X	X	X	X	X	
Medium Clear						X	X	
Approach Slow						X	X	X
Approach						X	X	X
Slow Clear							X	X
Slow Approach							X	X
Restricting								X
Stop and Proceed								X

Code Change Points

The signalling system does not only consist of fixed signals but also code change points. These track circuits behave like a fixed signal, but do not require that a physical signal be installed. They are used to further divide up signal blocks and are commonly utilized to force cab signal drops.

You don’t need fixed signals on the wayside for in-cab signalling to work. They are in place at interlockings and in certain block locations. The Long Island Rail Road’s operations depend heavily on code change points.

Below is an example of a code change point in the track. These will appear on the driving HUD as signals just like wayside signals.

Alerts and Alarms

If you enter a new signal block and the cab signal indicator reduces in speed (e.g., going from 70 code to 40 code), then the following occurs:

- An audible alarm will sound in the cab notifying the engineer of the change.
- The alert box on the HUD will appear (black and yellow striped box.)
- Automatic Speed Control (ASC) will begin braking the train automatically.
- The engineer has 7 seconds to move the master controller into the 'coast' position or any braking position and press 'Q' to acknowledge the cab signal downgrade.
- When below the new signal speed, ASC will release the brakes and relinquish control of the train back to the engineer

If approaching a permanent speed restriction that is lower than the current maximum authorized speed, Advanced Civil Speed Enforcement system (ACSES) may throw an alarm if approaching the new speed restriction too quickly. If this occurs:

- An audible alarm will sound in the cab notifying the engineer they are violating ACSES speed profile.
- The alert box on the HUD will appear (black and yellow striped box).
- The engineer will have 7 seconds to either get to the posted speed limit on the Cab Signal Indicator apply a minimum of 40% brake. The engineer must then use 'Q' to acknowledge the alarm.

If you have turned on the ALE, (the vigilance device), you will here an audible beep every 25 seconds if you have not touched the master controller (the combined throttle/brake lever), blown the horn or hit the Acknowledge Stick Lever (Alerter Reset). Any of these actions will reset the timer. It should also be noted that whilst the train is stopped at a station, best practice is to leave the train in Maximum brake. This will also prevent this audible alert from sounding.

Speed Increase Alert

If you enter a new block and it has an increased speed or the line speed has increased/decreased, the alerter will give a short beep to inform the engineer of this change.

Disabling/Enabling the Alerts

CTRL + SHIFT + ENTER will cut in or cut out the Automatic Train Control (the cab signal system). **On** by default

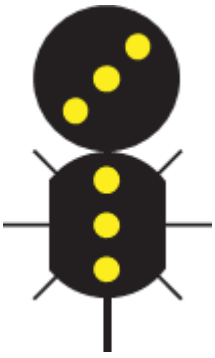
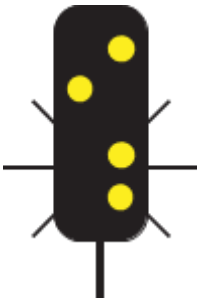
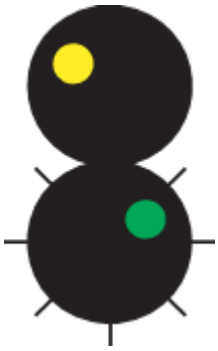
LEFTALT + SHIFT + ENTER will cut in or cut out the Advanced Civil Speed Enforcement System (ACSES) **ON** by default

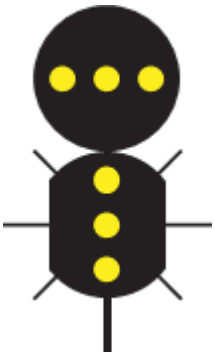
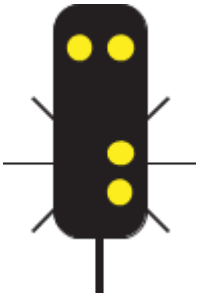
RIGHTALT + NumPadEnter will cut in or out the ALE, (the vigilance device). **OFF** by default**.**

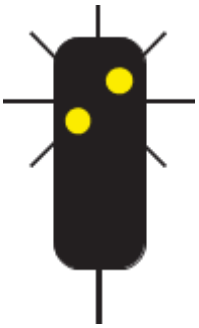
5 Wayside Signalling

These signals are found at block points and interlocking limits. They are controlled remotely at various dispatcher control centres throughout the route such as Jamaica Central Control (JCC) and Penn Station Central Control (PSCC).

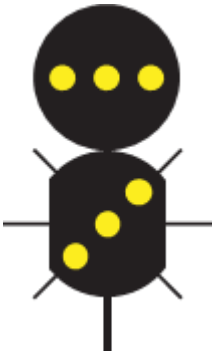
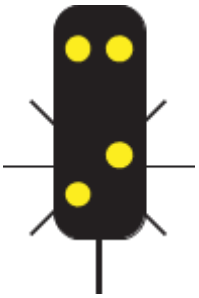
The following wayside signals are used on this route:

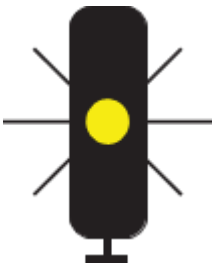
Signal Name	Wayside Signal	Wayside Signal	Wayside Signal	Description
Clear (1)				Proceed.
Clear (2)				Proceed
Approach Limited (1)	 (Flasing Aspect)	 (Flashing Aspect)	 (Flashing Aspect)	Proceed approaching the next signal at Limited Speed.

Signal Name	Wayside Signal	Wayside Signal	Wayside Signal	Description
Approach Limited (2)	 (Flashing Aspect)		 (Flashing Aspect)	Proceed approaching the next signal at Limited Speed.
Limited Clear (1)	 (Flashing Aspect)	 (Flashing aspect)	 (Flashing aspect)	Proceed at Limited Speed until entire train clears all interlocking or spring switches.
Limited Clear (2)	 (Flashing Aspect)		 (Flashing Aspect)	Proceed at Limited Speed until entire train clears all interlocking or spring switches
Approach-Medium (1)				Proceed approaching next signal at medium speed.

Signal Name	Wayside Signal	Wayside Signal	Wayside Signal	Description
Approach-Medium (2)				Proceed approaching next signal at medium speed.
Advance Approach (1)	 (Flashing aspect)	 (Flashing Aspect)	 (Flashing Aspect)	Proceed prepared to stop at the second signal. Trains exceeding Limited Speed must begin reduction to Limited Speed as soon as engine passes the Advance Approach signal
Advance Approach (2)	 (Flashing Aspect)		 (Flashing aspect)	Proceed prepared to stop at the second signal. Trains exceeding Limited Speed must begin reduction to Limited Speed as soon as engine passes the Advance Approach signal
Medium-Clear (1)				Proceed; Medium speed within interlocking limits.

Signal Name	Wayside Signal	Wayside Signal	Wayside Signal	Description
Medium-Clear (2)				Proceed; Medium speed within interlocking limits.
Approach-Slow (1)				Proceed approaching next signal at Slow speed. Trains exceeding medium speed must at once reduce to that speed
Approach-Slow (2)				Proceed approaching next signal at Slow speed. Trains exceeding medium speed must at once reduce to that speed
Approach (1)				Proceed approaching next signal prepared to stop. Trains exceeding medium speed must at once reduce to that speed.

Signal Name	Wayside Signal	Wayside Signal	Wayside Signal	Description
Approach (2)				Proceed approaching next signal prepared to stop. Trains exceeding medium speed must at once reduce to that speed.
Medium Approach (1)	 (Flashing Aspect)	 (Flashing Aspect)	 (Flashing Aspect)	Proceed prepared to stop at the next signal. Trains exceeding medium speed must begin reduction to medium speed as soon as the Medium Approach signal is clearly visible.
Medium Approach (2)			 (Flashing Aspect)	Proceed prepared to stop at the next signal. Trains exceeding medium speed must begin reduction to medium speed as soon as the Medium Approach signal is clearly visible.
Slow-Clear (1)				Proceed; Slow speed within interlocking limits.

Signal Name	Wayside Signal	Wayside Signal	Wayside Signal	Description
Slow-Clear (2)				Proceed; Slow speed within interlocking limits.
Slow-Approach (1)				Proceed approaching next signal prepared to stop. Slow speed within interlocking limits.
Slow-Approach (2)	 (Flashing Aspect)	 (Flashing Aspect)	 (Flashing Aspect)	Proceed approaching next signal prepared to stop. Slow speed within interlocking limits.
Restricting (1)				Proceed at Restricted speed

Signal Name	Wayside Signal	Wayside Signal	Wayside Signal	Description
Restricting (2)				Proceed at Restricted speed
Stop-and-proceed (1)			 (Flashing aspect)	Stop; then proceed at Restricted speed
Stop-and-proceed (2)			 (Flashing aspect)	Stop; then proceed at Restricted speed
Stop (1)				Stop

Signal Name	Wayside Signal	Wayside Signal	Wayside Signal	Description
Stop (2)				Stop

6 Scenarios

Career Scenarios

- [01] Summer of Hell
- [02] Hempstead 7's
- [03] On the Clock Part 1
- [04] On the Clock Part 2
- [05] Brooklyn Baller
- [06] Too Early for Work
- [07] Saturday Stakes

Railfan Mode Scenarios

Railfan Mode provides a unique chance to observe and enjoy the operations of trains without the pressure and involvement of driving them. Railfan Mode scenarios are positioned at various key points along the route and provide camera functionality to sit back and watch the action unfold.

These scenarios are located on the Drive screen under the Career tab.

- [Railfan] Floral Park
- [Railfan] Forest Hills

This scenario is located on the Drive screen under the Standard tab.

- [Railfan] Jamaica

7 Acknowledgements

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