TGV Réseau & TGV Réseau Duplex

Release Version 1.0

Contents

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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.

1 Rolling Stock

- **SNCF® TGV® Réseau**

- **SNCF® TGV® Réseau ("Carmillon" Livery)**

Release Version 1.0

- **SNCF® TGV® Réseau Duplex**

Release Version 1.0

2 Driving the SNCF® TGV® Réseau

1	Reverser	**8**	Train Brake
2	Horn (High / Low)	**9**	Cab Light
3	Combined Throttle & Dynamic Brake	**10**	Manual Wiper Control
4	Acknowledge	**11**	Wiper Control
5	Pantograph Controls	**12**	Headlights
6	Emergency Brake Plunger	**13**	Sander
7	Independent Brake		

3 Key Layout

Function	Key	Key
Load/Unload passengers or freight.		T
Increase Headlight switch		H
Decrease Headlight switch	Shift	H
Acknowledge button for the KVB		Q
Press and hold to activate Sander, let go to release.		X
Toggle the Cab Light on and off.		L
Toggle the Instrument Light on and off		I
Raise / lower the Pantograph		P
Sound the Horn's high tone		Space
Sound the Horn's low tone		B
Increase Windscreen Wiper switch		V
Decrease Windscreen Wiper switch	Shift	V
Toggle the train Handbrake on and off		/
Couple manually	Ctrl+Shift	C
Increase Cruise-Control target speed		Y
Decrease Cruise-Control target speed		C
Toggle the VACMA vigilance system	Ctrl	D
Acknowledge the VACMA alarm		NumpadEnter
Toggle the KVB system	Ctrl	NumpadEnter
Toggle the TVM system	Ctrl	Numpad+
Increase / decrease Reverser		W / S
Increase / decrease combined Throttle and Brake		A / D
Increase / decrease Train Brake application		' / ;
Increase / decrease Locomotive Brake application		] / [

4 TVM

***TVM* (translated as track-to-train transmission)** is a fixed block continuous transmission in cab signalling system for the French high speed TGV project.

Running on dedicated lines at speeds of 300km/h and faster, it is difficult for a driver to accurately see, process and act upon traditional line side signals with sufficient clarity. Instead, signal information is transmitted directly to the train's control panel allowing the driver to operate the train more safely within sufficient time. Activate in-game with CTRL Numpad +, acknowledge the command with Numpad +.

The line is split into blocks of approximately 1,500 metres (roughly 1 mile) with the block boundaries being marked by a blue board with a yellow arrow. Refer to ***5.3 Signal Heads and Aspects*** for the difference between F and Nf signals.
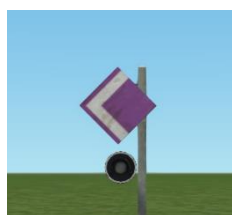
Junction signals are marked by a diamond shaped mauve board with a white arrow.

If a train enters a block which is already occupied, their speed will be limited to 30km/h, with speeds of 35km/h or greater causing an emergency brake application until the train is brought to a halt. An enforced speed limit between 35km/h and 170km/h has an allowed overspeed of up to 10km/h. With speed limits greater than 170km/h having a 15km/h overspeed allowance before the emergency brake is activated.

The target speeds for the current and subsequent block are displayed to the driver on the control panel by way of a colour coded numbering system.

- Full line speed is indicated by black boarded numerals on a green background. This is the current absolute maximum speed of TVM.

- Warning for an upcoming slower speed, adjust speed accordingly. Indicated by black numbers on white diamond background.

- Slower aspects are shown in white numerals on a black background. This limit is an execution speed that must not be exceeded.

- Warning for upcoming stop aspect. Black text on red diamond background.

- Full stop aspects are given on a red background. Do not pass.

If the subsequent block is slower than the current, the warning speed display will flash.

TVM Speed Chart

Line Speed	Warning Speed	Execute Speed
320		
300		
270	270	270
230	230	230
220	220	220
200	200	200
170	170	170
160	160	160
	000	■■■

5 KVB

The KVB system ensures the train speed does not exceed the current line speed or pass a danger signal. It can control deceleration, execution speeds and crossing of non-permissive (Nf plated) stop signals. Activate in-game with CTRL Numpad Enter.

The orange display shows control information regarding warning speeds, while the green display shows signal or line speed information.

 Active Cruise Control, the maximum authorized speed is greater than 160 km / h. This indication is made only crossing of a green signal.

 Distant signal control (target speed = 160 km / h).

 Speed control at 160 km / h. This indication is only for trains capable of traveling at a speed greater than 160 km / h.

 Active Cruise Control, the maximum allowed speed is less than or equal to 160 km / h.

 Temporary speed restriction announcement.

 Temporary speed restriction commencement.

 Stop signal announcement, approach at 30 km / h.

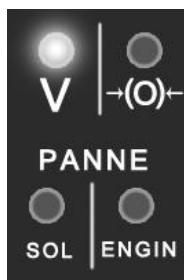 Stop signal announcement approach speed of 10 km/h

 Speed control at 30 km / h (on sight).

 Emergency brake application.

Alerts are displayed to the driver using the lights on the middle section of the upper panel of the in cab display unit.

 Speed exceeds current enforced speed by 5km/ h.
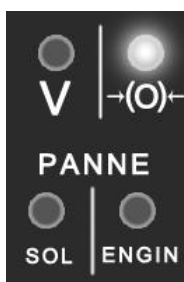
 Computer has triggered automatic emergency braking.

For a signal at danger or warning, an audible horn will sound in the cabin. The orange light on the KVB display panel will also flash. The driver must acknowledge the non-clear aspect by pressing the yellow button on the control desk (Q) to stop the flashing. A steady lamp will then display until the next clear aspect is signalled. If not acknowledged within 5 seconds an emergency brake application will be made.

If another non-clear aspect is passed consecutively there is an automatically enforced 30km/ h limit regardless of the line or signal speed. This will give any traffic in front time to clear the next block. This is also cleared when passing a clear signal.

6 Power Management

The TGV can operate under two different power voltages within Marseille to Avignon. When switching between these points the pantograph needs to be set to the appropriate voltage in order to take power from the line.
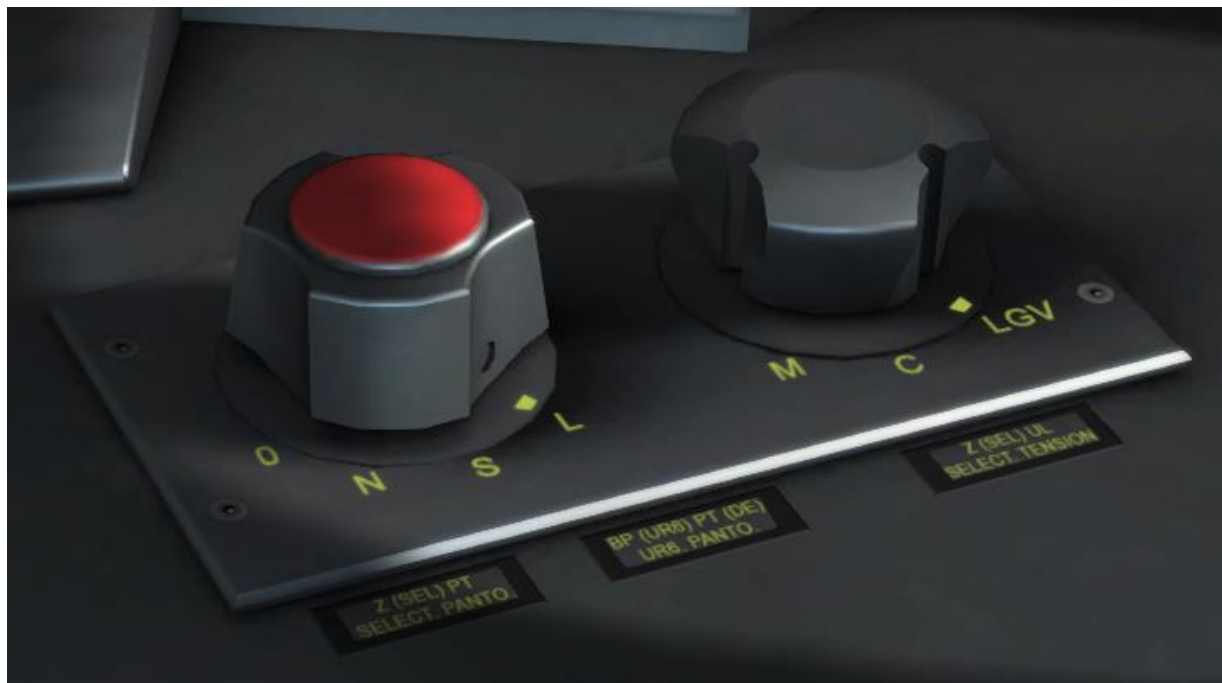
The red dial controls the selection of the pantographs

0 – Lower all pantographs.

N – Select rear pantograph.

S or L – Select front pantograph.

The black dial controls the voltage by raising the pantograph to a set height

M – Raises selected pantograph on the rear unit for 25Kv power mode. The pantograph is not raised to its maximum extension.

C – Raises selected pantograph on both the front and rear units for 1500V power mode. The pantograph is not raised to its maximum extension.

LGV – Raises selected pantograph on the rear unit for 25Kv power mode. The pantograph is raised to its limited extension of 5.08m.

7 Cruise Control & VACMA

Vitesse imposée (Cruise Control)

To help maintain speed the TGV is fitted with a cruise control system. This allows the driver to select a speed and let the train automatically accelerate and maintain it.

The speed is incremented in 10kph notches that is increased by pressing the Y key and decreased by pressing the C key. If throttle power is applied and the brakes are released the train will begin to match the set speed.

VACMA

VACMA acts as a vigilance system used to check the driver is present and aware when driving a locomotive. When the player is travelling above 8km/h an alarm will sound every sixty seconds if no input control is detected. This must be acknowledged within five seconds or an emergency brake application will be applied.

To toggle the system, use the hotkey CTRL + D. To acknowledge the warning, press the hotkey Numpad-Enter.

Release Version 1.0

8 Scenarios

Career Scenarios

- [TGVR] 01. A Day in Marseille
- [TGVR] 02. Heading South
- [TGVR] 03. Sunshine Not Guaranteed

Release Version 1.0

9 Acknowledgements

Dovetail Games would like to thank the following people for their contribution to the development of TGV Réseau & TGV Réseau Duplex:

Ricardo Rivera
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