Instruction Manual

JR EAST Train Simulator supervised by East Japan Railway Company / produced by ONGAKUKAN Co., Ltd.

2025.12

0 Introduction

About This Game

Ongakukan, which has extensive experience in train driving simulators, and JR East have teamed up to bring you a simulator. You can experience the professional simulator, practically used by JR East drivers for training, at home.

Features

- High-definition images of JR East's train lines are captured in live-action. You can drive the train from the same perspective as the driver. You can enjoy driving from the same point of view as the driver.
- The sounds emitted from the trains and tracks in the simulator are recorded by JR East using actual trains, so you can experience the realistic running sounds that a driver would feel comfortable driving.
- The instrument panel displays the speedometer and other data just like the actual vehicle, and operates faithfully according to driving operations, speed, etc. The sound and instrument panel display will switch to that of the vehicle when the type of vehicle being experienced is changed.

1 Opening Movie and Menu Screen

Once you start the simulator, the introduction video will play, followed by the main menu screen.

【Introduction video】

The opening video introduces an array of images of JR East's crew and trains. Skip by pressing Enter.

【Main Menu screen】

Drive: Proceeds to the simulation.

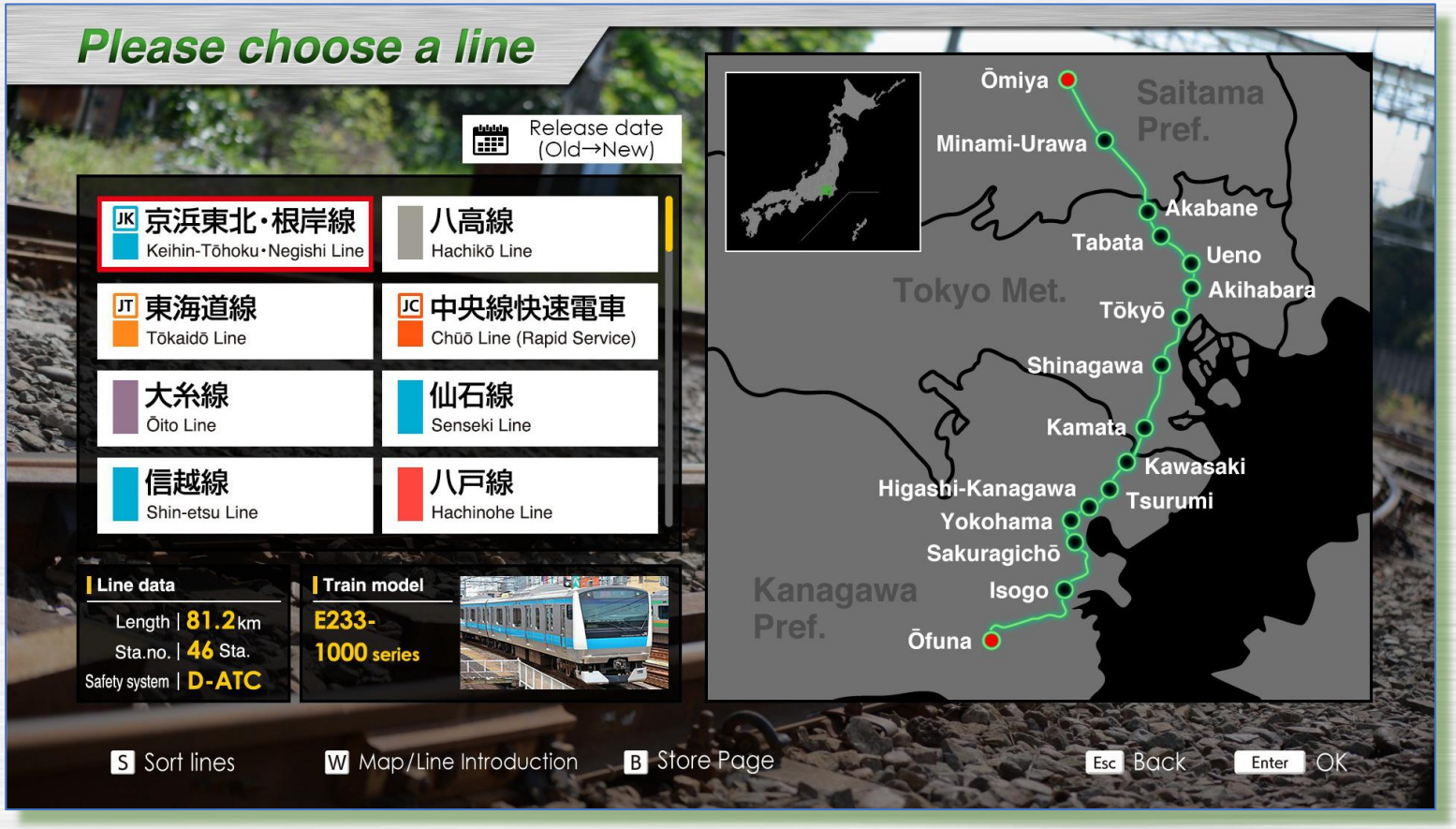
Shut Down: Closes the simulator.

Settings: Displays all the settings.

2 Line Selection

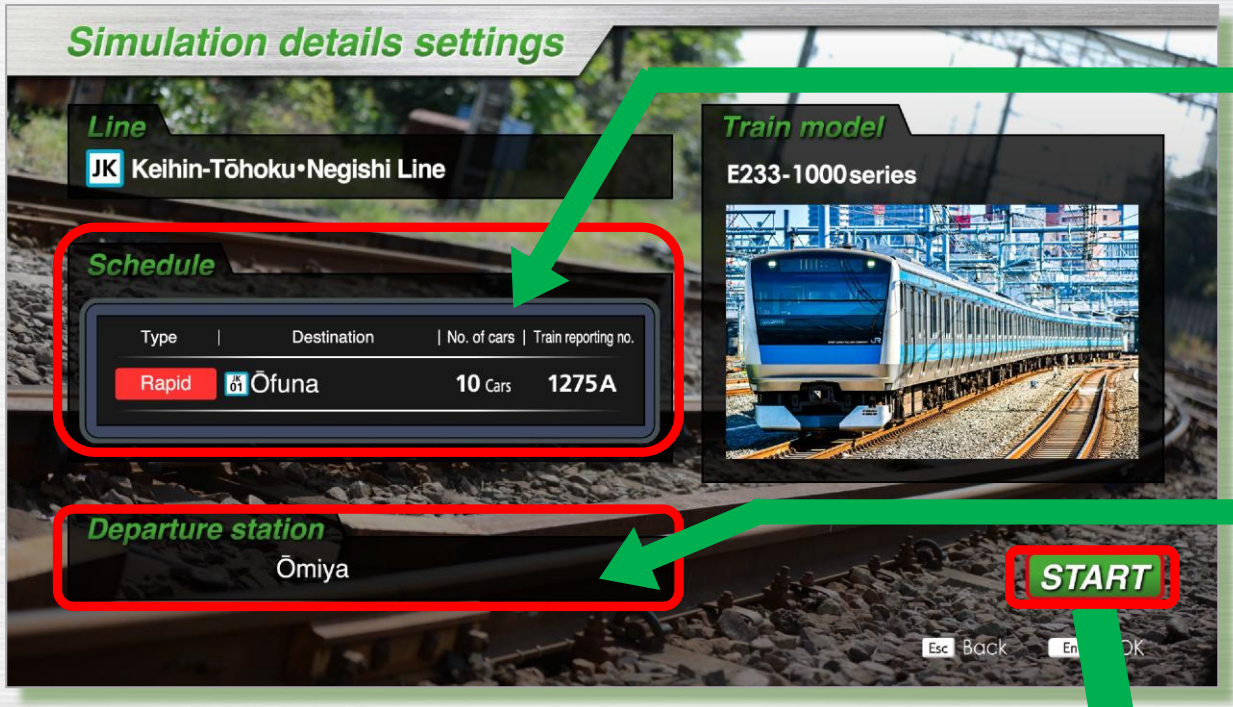
The lines available are displayed in a list.

Once you choose the line to drive on, press [Enter] to confirm.

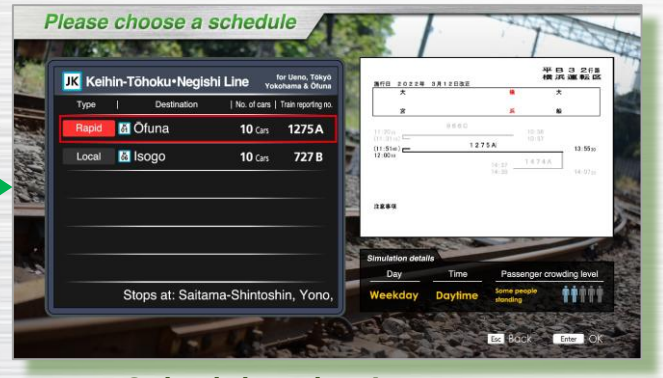


3 Simulation Details Settings

Once you selected the line, you can choose the time schedule and the station from which to start.
After confirming the details, press the "start" button to begin the simulation.



Simulation details setting screen



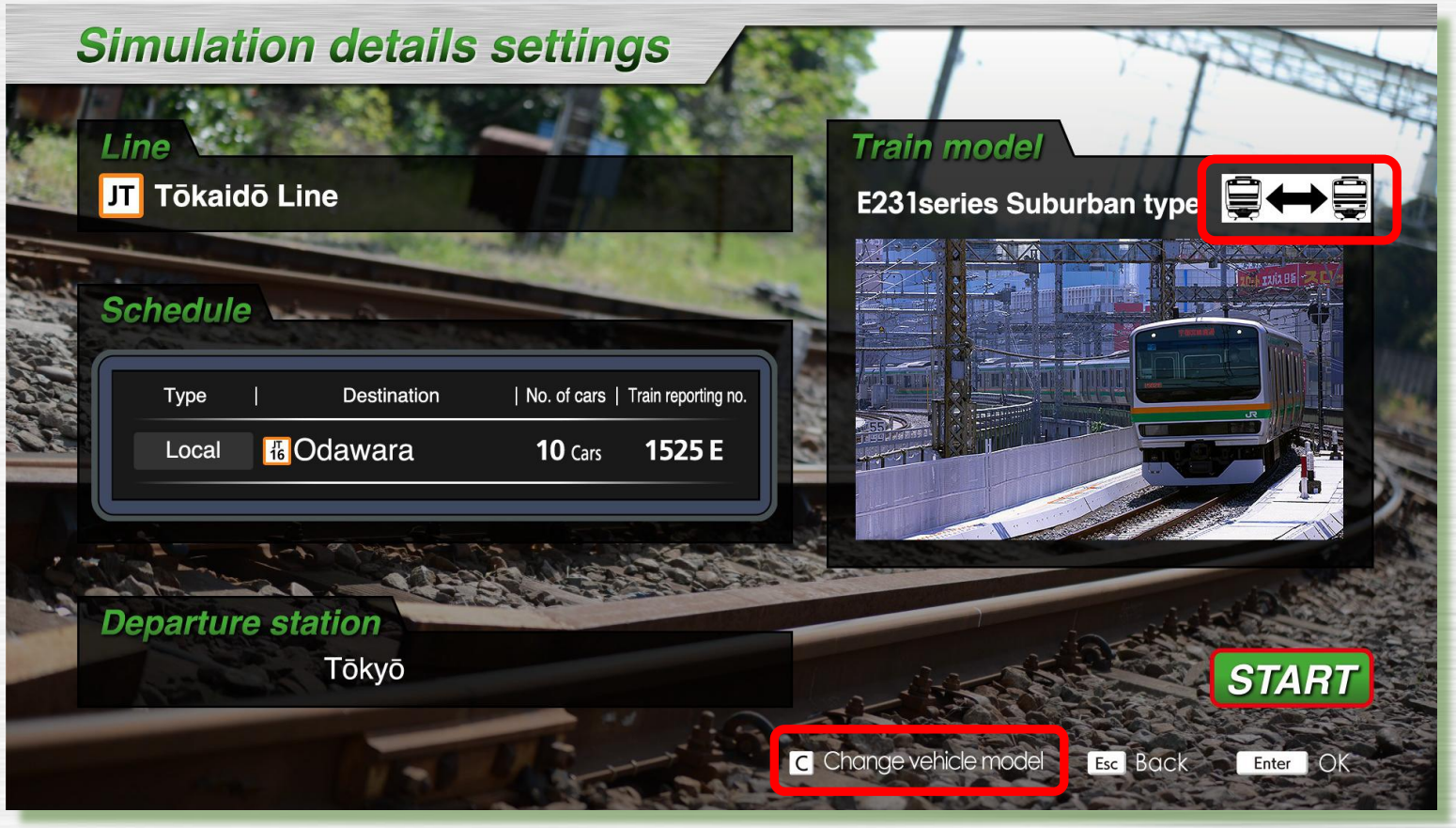
Schedule selection screen

Starting station selection screen

Start simulation

3 Simulation Details Settings

If there is an icon shown on the top right corner of the Train model display, you can change the train model.
Press the "C" key to change the model (On Xbox controllers or ZUIKI MASCONs, press the “Y" button).



4 Driving Interface

The session begins while stopped at the selected starting station.
After 20～30 seconds, the doors will close automatically, and you can start driving.

Driving information （HUD）

Displays the current speed, the distance and scheduled arrival time to the next station.

The number at the bottom shows the incline of the track (a negative number represents a downward slope).

Pressing the [V] key will show or hide the information HUD.

Stopping position marker

This marker is displayed when entering the station. The train's position is represented by a moving diamond shaped mark; as the train approaches the stopping point, it will appear from the top of the screen.
The centre of the green bar is the designated stopping point.
The stopping position marker shown on the right is what you find at stations with platform screen doors. These stations require to stop within a ±35cm distance from the stopping point (±75cm distance on Tobu lines).

5 Driver Console

The meters, lamps and information displayed on the driver console are the same as on real trains.

Depending on the train model in use, the displayed meters and signals will change to reflect the correct ones.

When stopped at a station, if the doors are open, the pilot lamp will be off, if the doors are closed, it will be lit up.

E233 series 3000 EMU
(Tokaido Line)

211 series EMU
(Oito Line)

Pilot Lamp

5 Driver Console

In the driver console view mode, it's possible to adjust the zoom, position and visibility of the drivers' console.

Furthermore, the console appearance changes depending on the external light conditions, in reaction to braking etc.

Console zoom and positioning

Default

Console hidden

When driving in a dark area

Keyboard and mouse controls

Zoom in/out・・・・・・・・・Scroll wheel ↑ and ↓ while holding the Shift key
Position shifting ・・・・・・・Drag left mouse button while holding Shift key when zoomed in
Return to default ・・・・・・・Press "C" while holding the Shift key
Console show/hide・・・・・" C" key

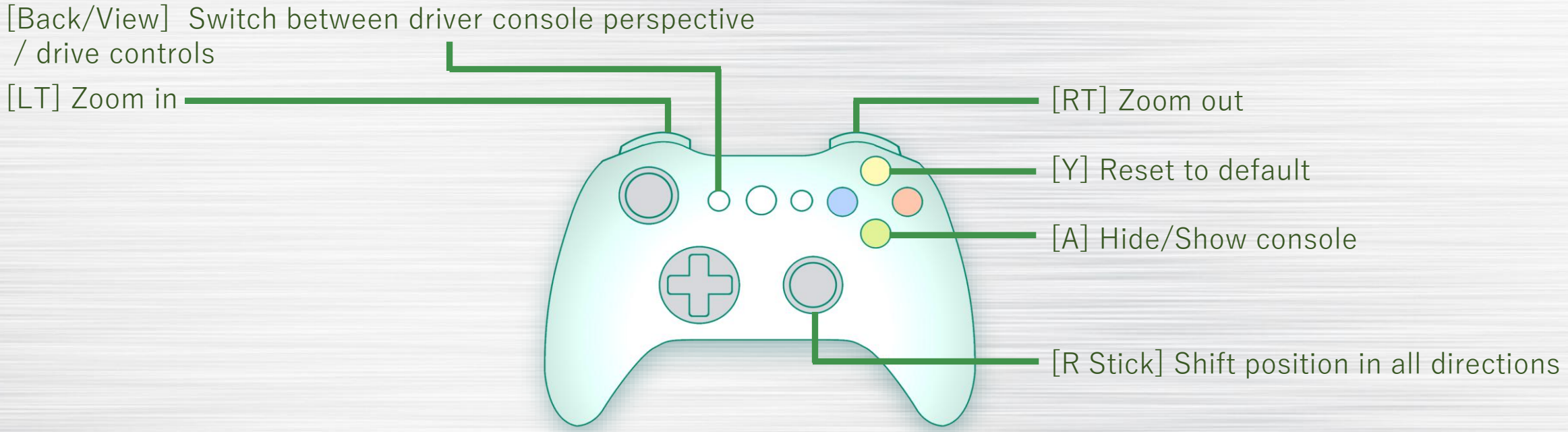
5 Driver Console

Controls with the Xbox controller

Switch between driver console perspective / Drive controls ・・・・・・[View] Button

Switching to the driver console perspective mode, it is possible to zoom the console view in and out.
(In this mode, it is not possible to use driving controls. To go back to normal drive controls, press [view] button once again)

Zoom in / Zoom out ・・・・・[LT] / [RT] when in perspective mode
Shift position ・・・・・・・・Move the [R Stick] when in perspective mode
Reset to default ・・・・・・・[Y] when in perspective mode
Hide/Show console ・・・・・・[A] when in perspective mode



5 Driver Console (2 Screens)

From the "Driver Console Display Format" tab in the Settings menu, it is possible to set the driver console to be displayed in a separate screen/monitor.

By displaying the front scenery and the driver console separately, you can experience an even more realistic simulation.

※Along with the settings from the software side, it is necessary to set up the display output position from the computer in use beforehand.

※For the driver console display, widescreen monitors with an aspect ratio of 21:9 or greater are recommended.

※Apply settings to the JR East train simulator official master controller driver console monitor in the same way.

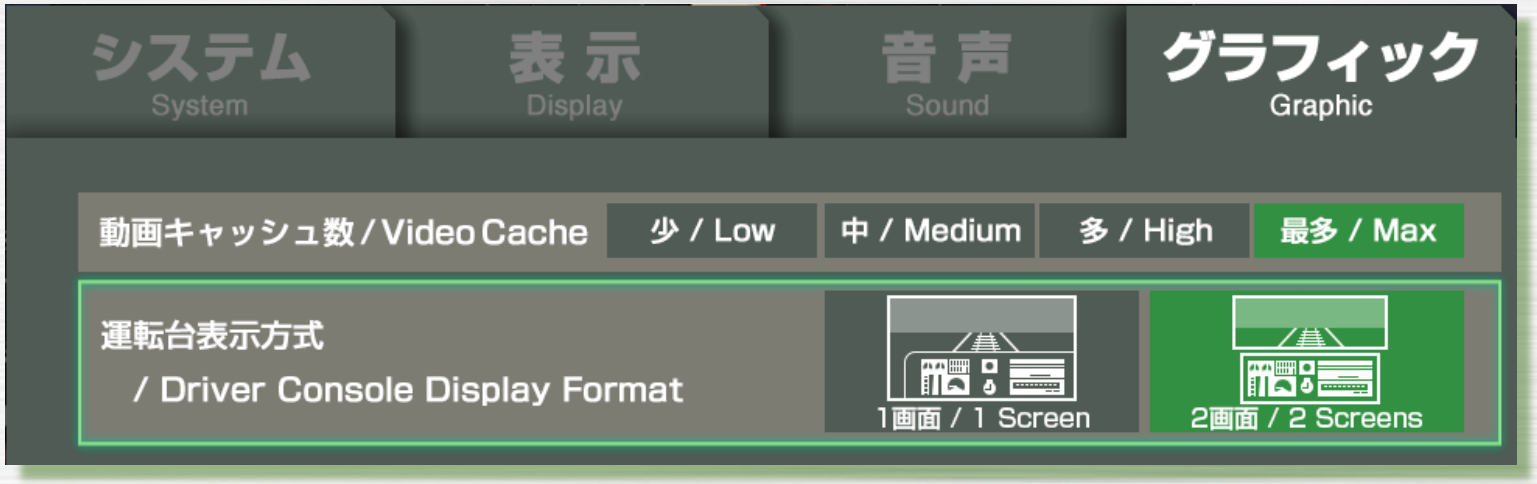
Example of secondary display setup

- Even when setting up the secondary display, the driver console on the frontal scenery can still be turned ON and OFF, and the zoom in and out options are still active.
- Please note that disconnecting the cable/secondary display during play will disrupt the setup.

5 Driver Console (2 Screens)

1. Software settings

In the settings menu, select the "Graphics" tab, and set the "Driver Console Display Format" to "2 Screens".



※Along with the settings specified above, it is necessary to set up the display output position from the computer in use beforehand.

(Please refer to "3. How to set up the display output position of your PC monitor" in the next page)

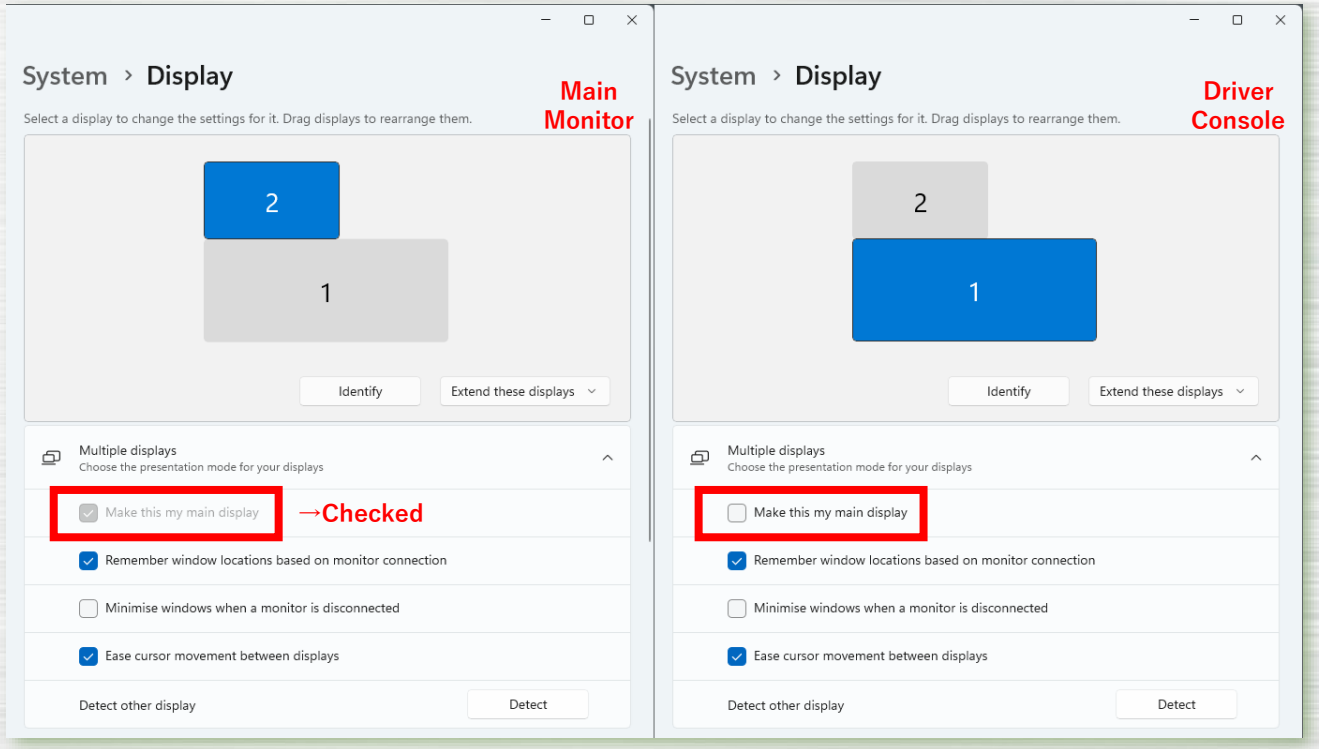
5 Driver Console (2 Screens)

2． Multiple Display Settings on the PC

※ The screen configuration cannot be changed during play.
Please implement these changes while the JR East Train Simulator is not running.

① Connect the display that will show the Driver console to the PC.

② Find "Multiple Displays" in Windows Settings > System > Display. Select the display that shows the front view video, and check "Make this my main display". If it is already checked, the checkbox is greyed out.



Multiple Display Settings on Windows

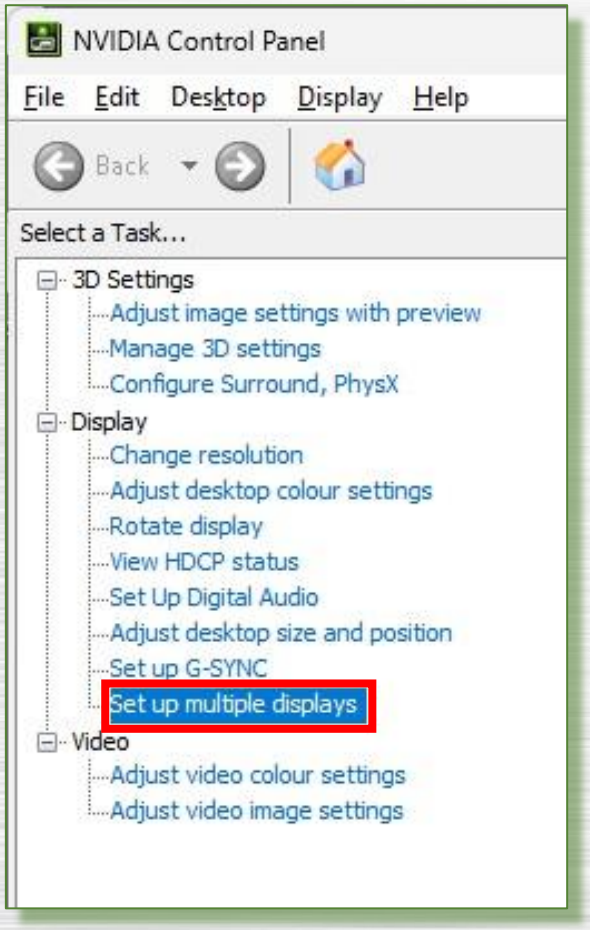
5 Driver Console (2 Screens)

3. How to set up the display output position of your PC monitor

※ The screen configuration cannot be changed during play.
Please implement these changes while the JR East Train Simulator is not running.

① From the Windows start menu open the "NVIDIA control panel". (the right figure)

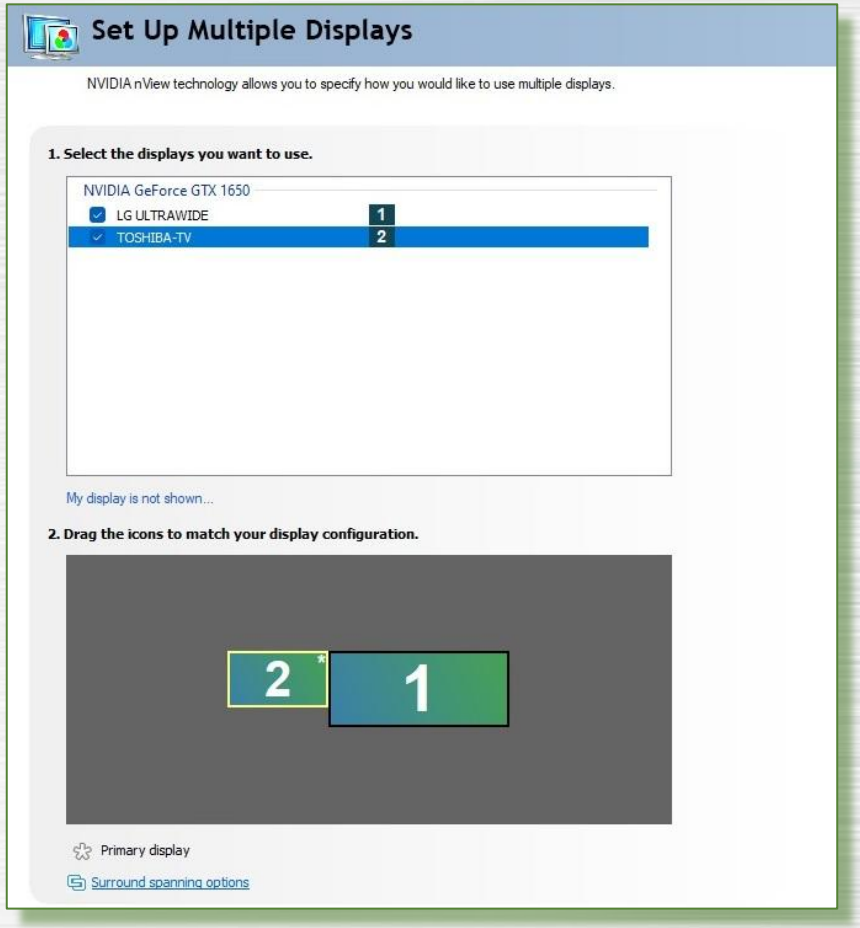
② From the left-hand menu select "Set up multiple displays".



5 Driver Console (2 Screens)

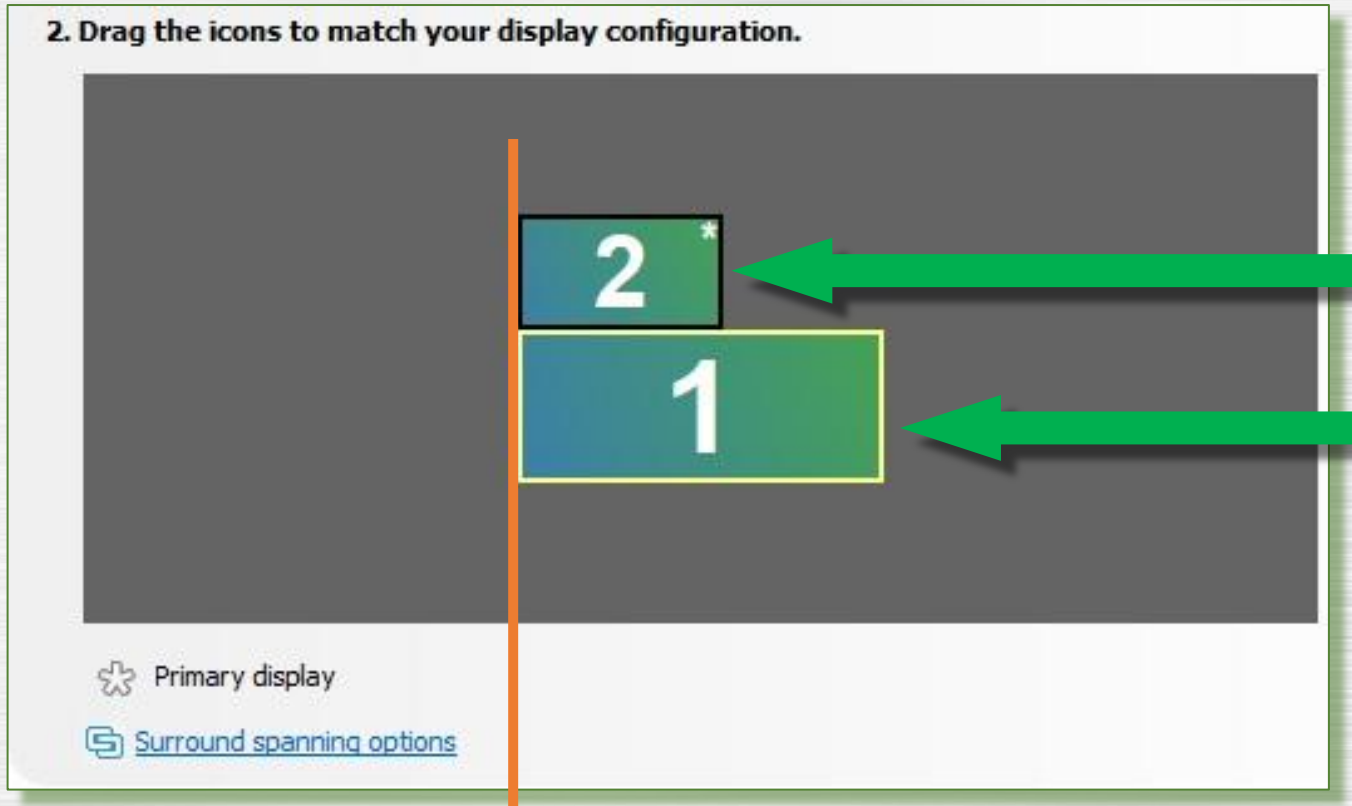
③ From the "Set up multiple displays" page, in section 2." Drag the icons to match your display configuration" , select the monitor you want to use for the front footage as make Primary display.

※If the displays have been configured properly by "2. Multiple Display Settings on the PC", this step may be skipped.



5 Driver Console (2 Screens)

④ Drag the screen that you want to use for the driver console under the one you set as primary display in point ③, and align them on the left side.



↑ **aligned left**

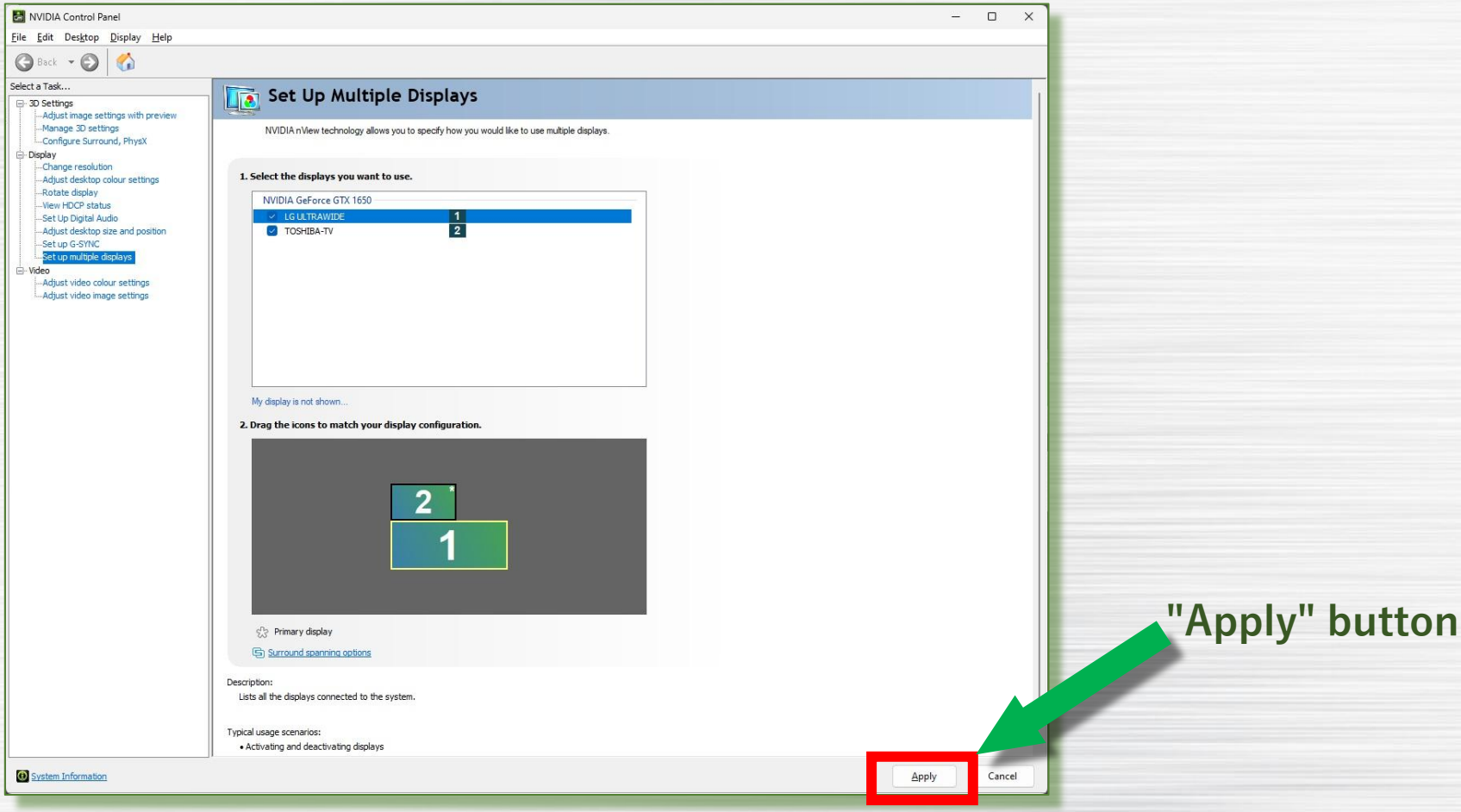
Front view

Console

5 Driver Console (2 Screens)

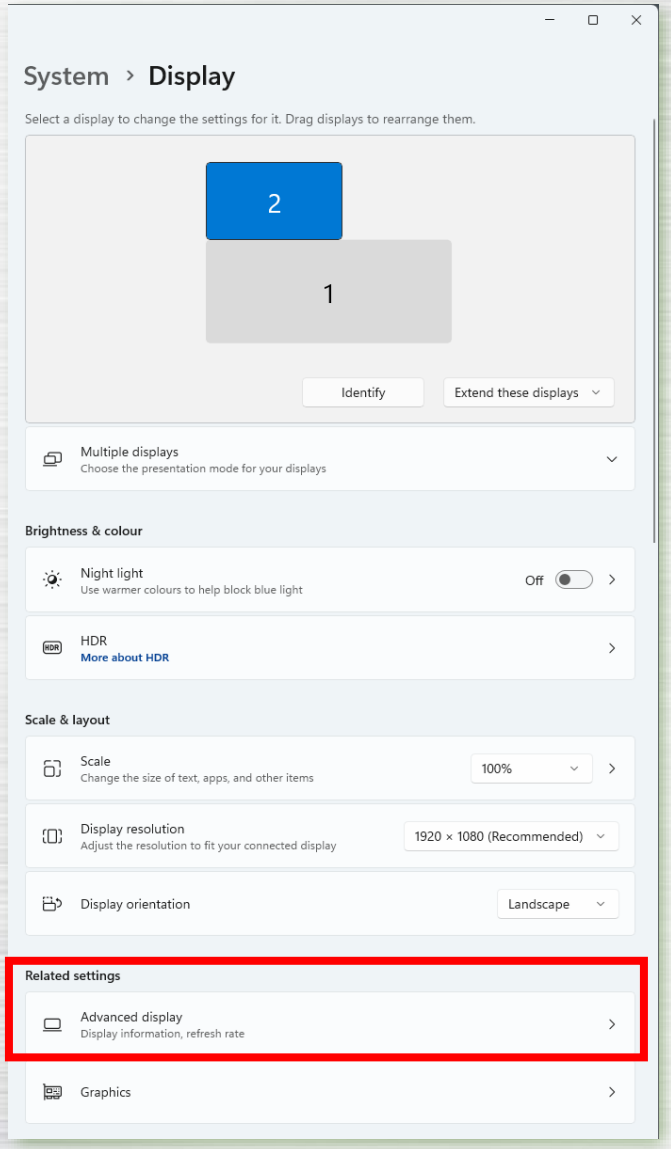
⑥ At the bottom of the page, press "Apply" to confirm the settings.

※ If JR East Train Simulator is active while doing these operations, please shut down the software and restart it once you have completed the setup.



"Apply" button

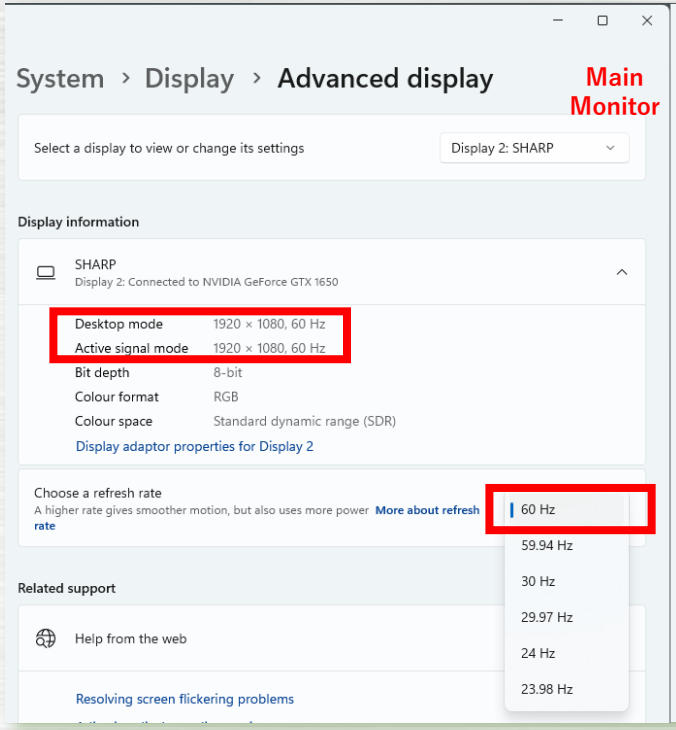
5 Driver Console (2 Screens)

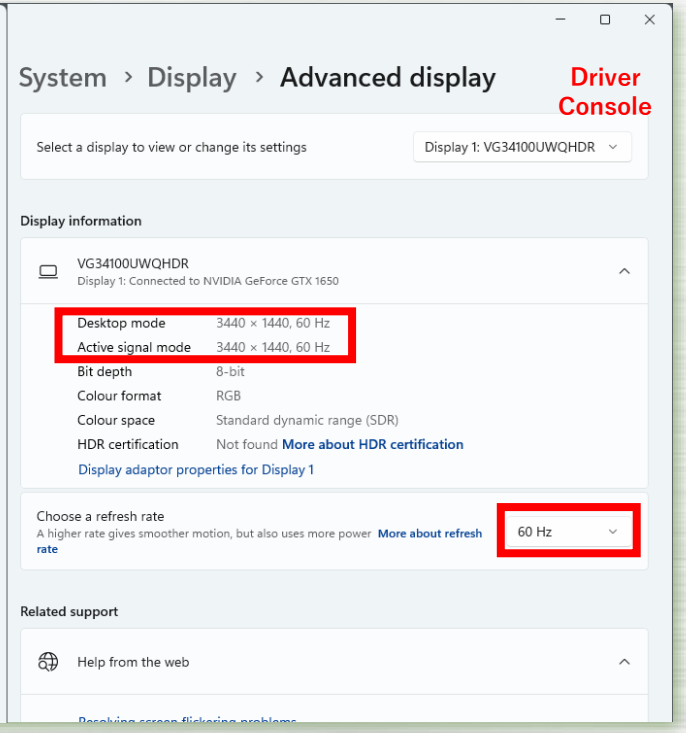


In case the dual-screen display is not functioning properly, check the resolution and refresh rate for each display.

① Select "Advanced display" from Windows Settings > System > Display, and review each display.

② Under "Display information", confirm that the "Refresh rate" is set to "60Hz".

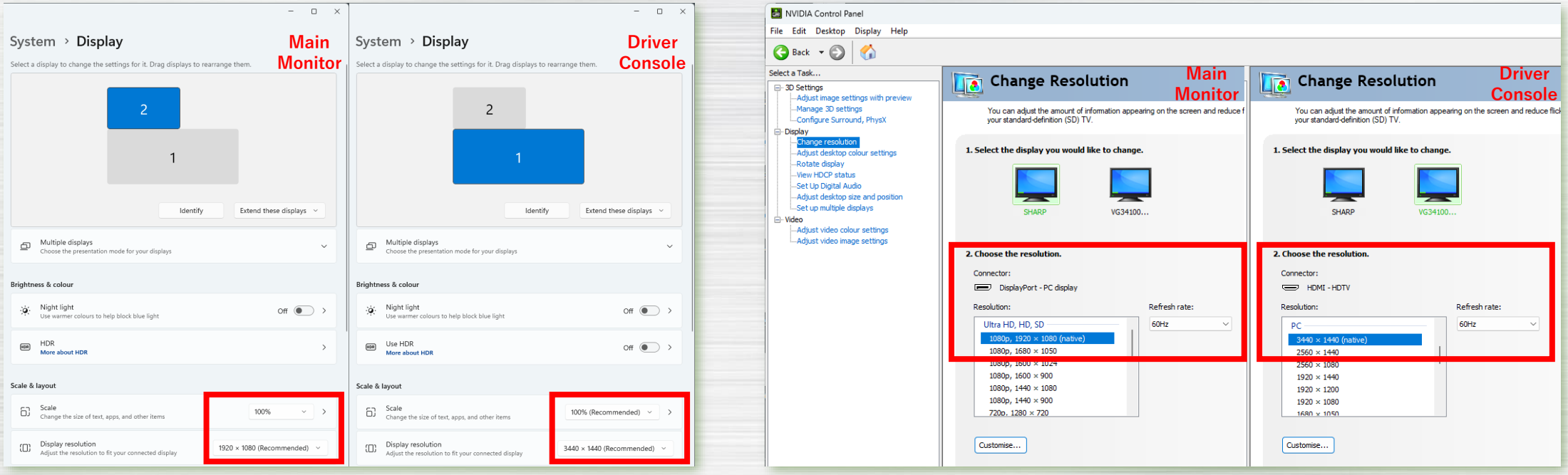




5 Driver Console (2 Screens)

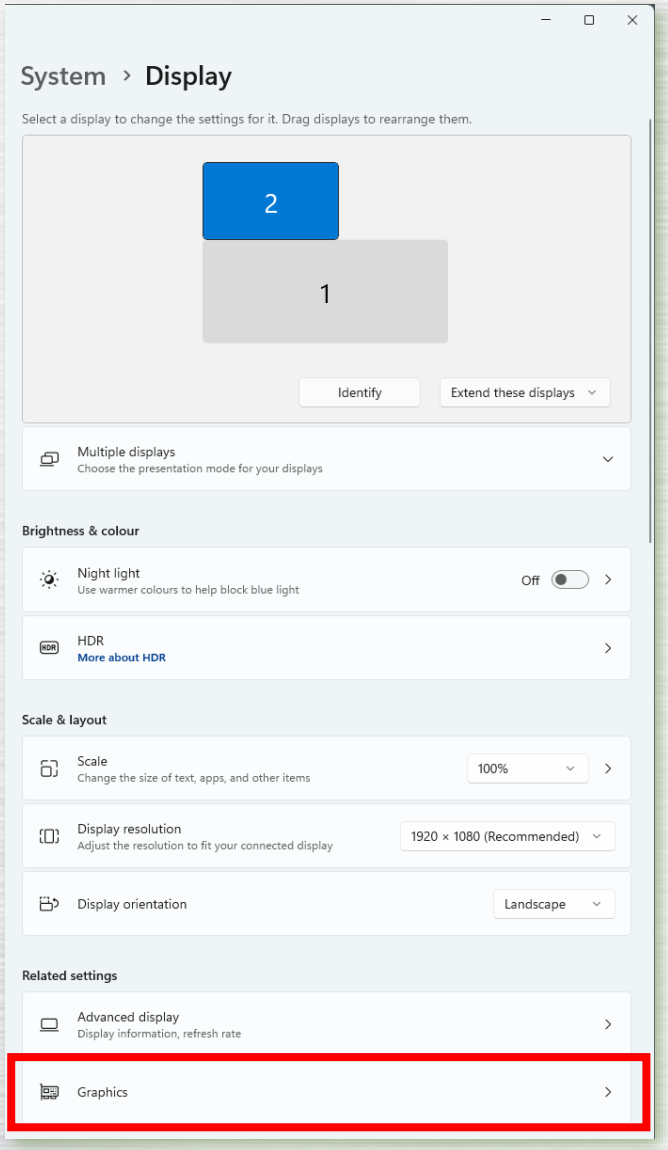
③ Verify that both displays are configured with the same resolution and refresh rate of 60Hz. If either has a lower refresh rate, the other will adjust accordingly. If the resolution differ, modify them to maintain a refresh rate of 60Hz.

It is recommended to connect the graphics card directly to the display.
Use of a conversion connecter may restrict the resolution and refresh rate to lower values.



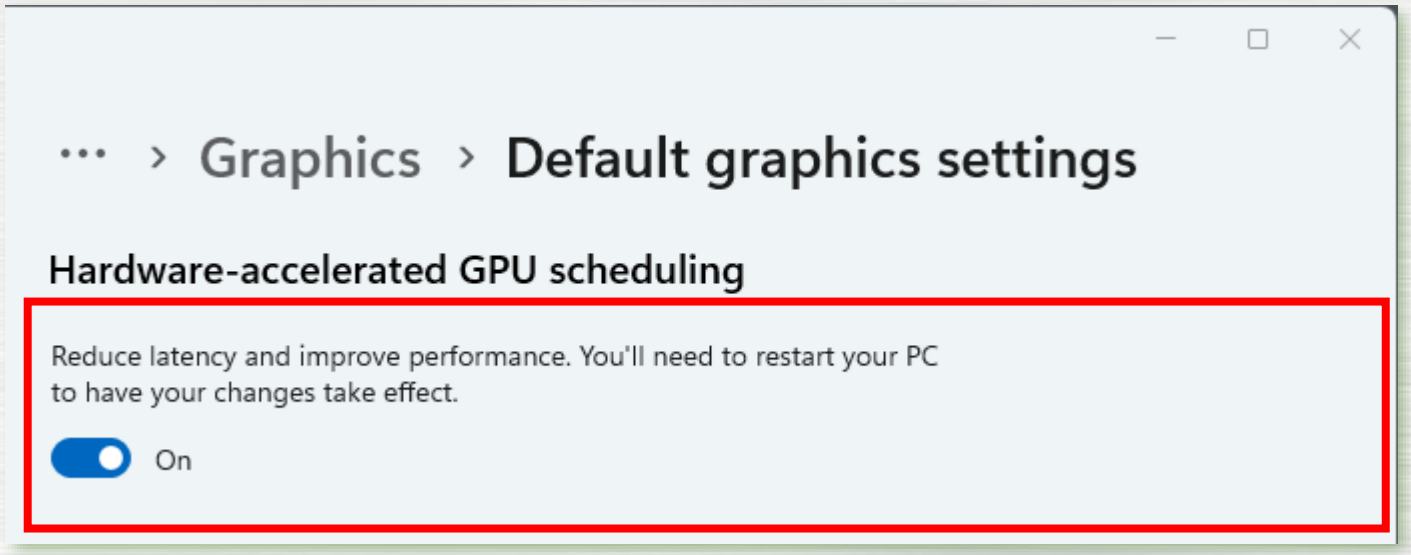
An example setup of JR East Train Simulator Official Master Controller monitor

5 Driver Console (2 Screens)

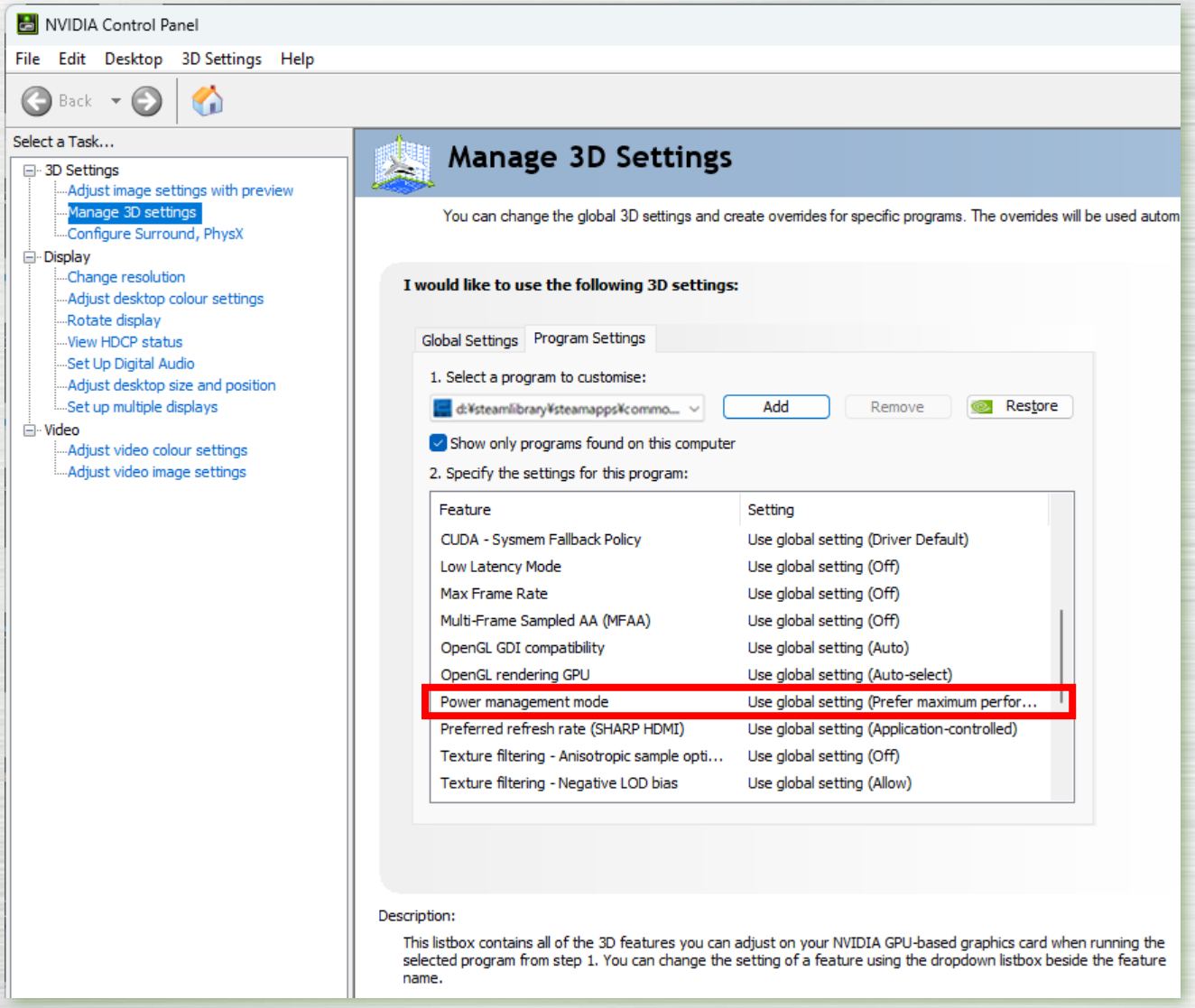


If the video stutters, go to "Graphics" from Windows Settings > System > Display.

In the “Default graphic settings" section, turn on "Hardware-accelerated GPU scheduling".



5 Driver Console (2 Screens)



If the video stutters, launch the "NVIDIA Control Panel" from the Start menu, and select "Manage 3D settings" in the left pane.

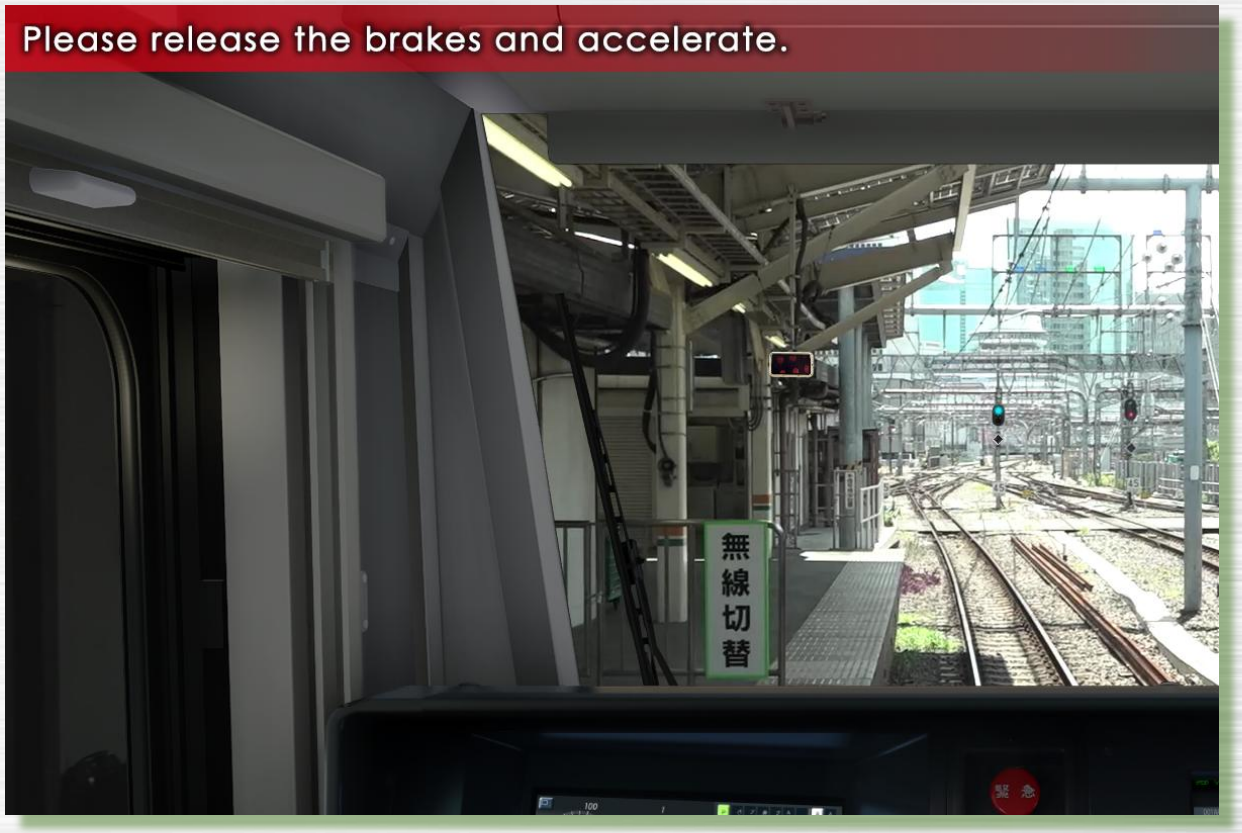
In either Global settings or Program settings, set "Power management mode" to "Prefer maximum performance".

For "Vertical Sync" and "Max Frame Rate", select "3D application setting" or set both to "Off". Changing these settings may cap or reduce the frame rate on the display setup and the simulator.

6 Driving ① Departure

When at a station, once the doors close, the pilot lamp will turn on.
(Among DMUs and the Tobu Lines, there will also be a departure signal buzzer from the conductor.)

You can then accelerate and depart.



If you idle when the pilot lamp is lit, after a while the operation guide will pop up.

(can be turned off from the settings menu)

7 Driving ② Traveling

Drive until the next station. (*) ……By default setting, it is done automatically.

Signalling confirmation and Safety systems

- Going over the speed limit or not respecting the signals will result in automatic deceleration.
- If the emergency brakes activate automatically, put the brakes in the "Emergency" position manually.
  Once you release them, the automatic brakes will release too. (*)

◆ In the **ATS-Ps installed section, the automatic brakes not release just by putting the brakes in the "Emergency" position .**
See next page for the description of ATS-Ps.

EB alarm

- **Inactivity for over 1 minute while in motion will cause an alarm to ring.**
  If there is no activity (pressing the dead-man reset switch reset button, sound the horn etc.) for 5 seconds while the alarm is ringing, the driver is considered incapacitated (dead-man's switch) and the emergency brakes will activate. (*)

Signalling on the tracks.

In the case of some safety systems(ATC, for example), There are not any signalling on the tracks, so the speed limit is shown as a yellow triangle on the speedometer.

7 Driving ② Traveling

ATS-Ps system (Ōito line etc.) (*) ……By default setting, it is done automatically.

The train models that support ATS-Ps are equipped with a display as shown below.
Your speed and speed limit of the own train are displayed with lamps.

When entering the speed limit section, the bell will ring and the chime sounds "Ding Dong…" to alert the driver.

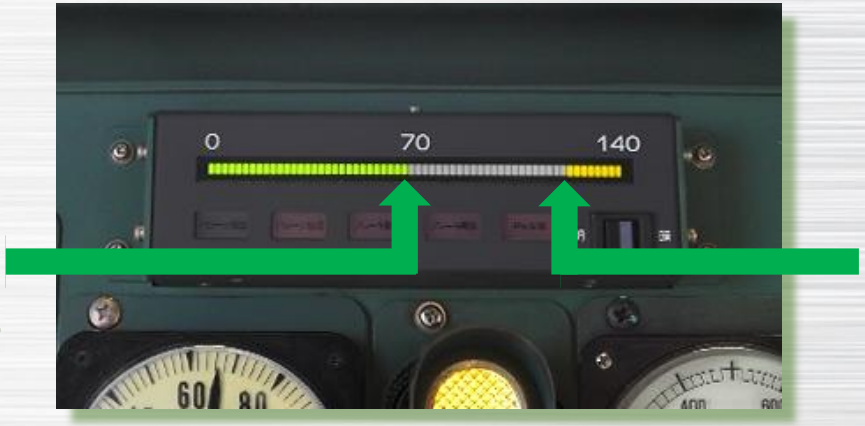
The driver must operate one or more brakes within 5 seconds and press the ATS confirmation button to make the train aware that it has been confirmed. (*)
At this time, the bell will stop ringing, but the chime will continue to sound until it passes through the caution section and the driver will stop it manually.

If the confirmation operation of the bell sound is delayed or when driving at a speed that makes it impossible to stop before a stop signal, the emergency brakes will activate, and the train will stop.

To release the brakes, the driver must operate the ATS reset switch with the brake in "emergency". (*)
After the train passes through the warning section and stops at the next station, press the alarm stop button (X key) to stop the chime sound.

Your Speed

If the speed up and reach right speed limit display, emergency brake will activate.



Speed limit display

The speed allowed is shown.
When approaching a stop signal, this display also gradually descend from right to left.

7 Driving② Traveling

KiHa 54 series driving operation （Keyboard） * When using a gaming controller, please set up the layout using the optional buttons.

・ Simplified and realistic operation of the handles

In the settings screen, under the "KiHa54 Handle Operation" tab, it is possible to switch between "simplified" and "realistic" operation.
With the "realistic" mode, it is possible to operate the automatic air brake and the gear shift handle.
The "simplified" setting allows the use of the same controls of other 2-handle trains (like the 211 series).

The automatic air brake : controls the braking of the entire train. It reduces the braking force by applying air pressure.

「M」 key: Drive position 「, 」key: Drive position when held down, Keep position when released
「. 」key: Service Brake (NB) when held down/Keep position when released 「/ 」key: Emergency Brake (EB)

The gear shift handle : Similar to cars and bicycles, the gear shift handle controls how the rotation of the engine is transmitted to the wheels. The gears are arranged in order of "Shift Change" (mainly used for departure and medium speed), "Neutral", and "Direct" (mainly for medium and higher speed). Since the KiHa 54 series automatically changes its gear depending on the speed, place the gear in the "Shift Change" or "Direct" position when accelerating.

「R」 key: shift towards "Direct" 「F」 key: shift towards "Shift Change" gear

・ Air pressure gauges of the KiHa54 series

There are 2 different air pressure gauges on the KiHa 54 series. In the picture on the right, the gauge on the left indicates the Equalizing Reservoir (ER) pressure (black needle) and the Main Reservoir (MR) pressure (red needle) of the reserved air, while the gauge on the right shows the Brake Pipe (BP) pressure (black needle) and the Brake Cylinder (BC) pressure (red needle) of the brakes.
Like in other models, what indicates the braking power is the **red needle on the left (BC pressure).**

Among automatic air brakes, as **the BP pressure (black needle) grows, the brakes will be released, and the BC pressure value indicated by the red needle will reduce**.
Once the BP pressure (black needle) reaches a certain low value, the BC pressure (red needle) will be unable to rise anymore, and **it won't be possible to brake more than what is currently applied**.
If the BP pressure (black needle) decreases too low, loosening the brakes will also take longer, so **it's recommended to operate the brakes so that the black needle does not go below 300kPa**.

Black needle : BP pressure
Red needle : BC pressure

7 Driving② Traveling

KiHa 54 series driving operation （Keyboard） * When using a gaming controller, please set up the layout using the optional buttons.

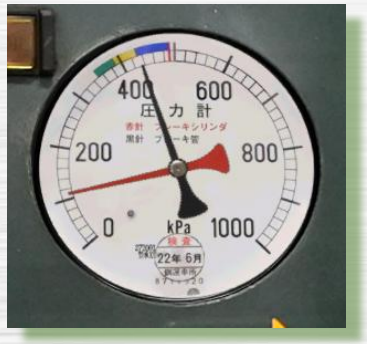
・ Operations between departure and arrival at the next station:

1. After the doors close, the conductor signals with the buzzer.
   Move the gear shift handle to "Shift Change" or "Direct" ,
   and using the **[M] key, release the brakes into drive position** (the BC pressure will indicate 0kPa).

2. Depart by putting the master controller into P1 position, and after some distance, you can change to P4～P5.
   After reaching the desired speed, put the master controller in N position and maintain speed.
   In this situation, by putting the **gear shift handle to "N"**, the rotations of the engine are not transmitted, and the train will move completely by inertia.

3. When about 600m before the next station, **put the brake handle to the "keep" position using the [,] key.**
   At about 500m remaining, apply the brakes **using the [.] key to put the brakes in the "NB" position**
   (they do not work right away, so operate them early)
   Use the **[,] key to put the handle in the "keep" position** and maintain a BC pressure of 100～150kPa.
   (when braking, try to keep the black needle of the pressure gauge between the blue and yellow areas on the gauge face)

4. While paying attention to the remaining distance,
   use the 「M」 and 「 , 」keys to alternate brake release and "keep" (and maintain BC brake pressure),
   and repeat until you reach the stopping point.



Example of brake pressure gauge during operations

Black needle : between blue and yellow (BP pressure)

Red needle :100～150kPa (BC pressure)

・ Engine (holding) brakes

By pushing the speed suppression switch (「D」 key) when the master controller is at P1 or higher, returning the master controller handle to 「N」 will activate the engine (or holding) brakes.
When this happens, the "B" lamp on the console will turn on. To reset, put the handle back to P1 or above.

7 Driving② Traveling

KiHa 110 series driving operation（Keyboard） * When using a gaming controller, please set up the layout using the optional buttons.

- **Engine brake (or holding brake)**

  When the train is running at 50 km/h or above and the controller is in the N position, pressing the "Speed Control 1 （抑速1） switch" (D) or "Speed Control 2（抑速1） switch" (W) will apply the engine brake (or holding brake), and the "Speed Control 1" or "Speed Control 2" indicator will illuminate. When the speed drops below 45 km/h, the brake will automatically release. If you wish to release it manually, press the Speed Control switch again or set the controller to P1 or higher.

※ Speed Control 1: weaker engine brake　Speed Control 2: stronger engine brake

Example of the display when the engine brake (or holding brake) is applied

7 Driving② Traveling

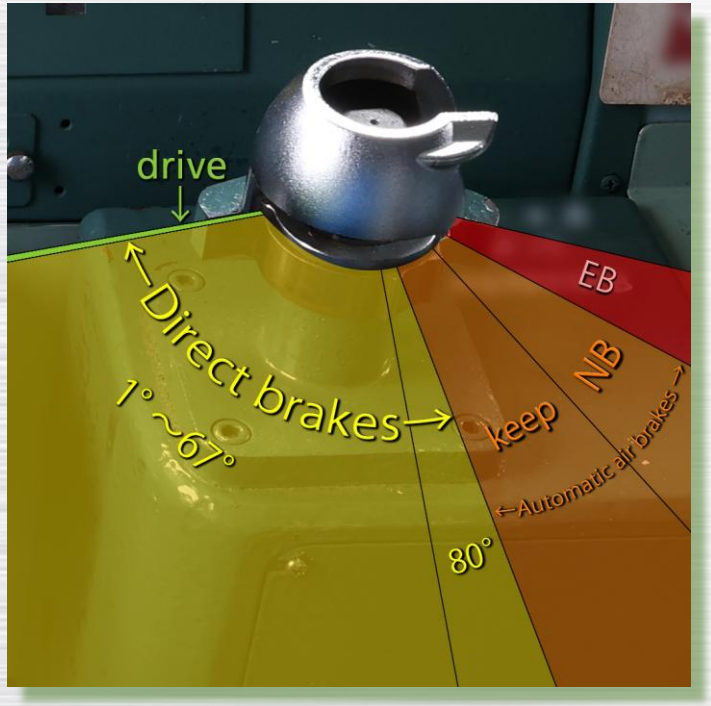
185 series driving operation (Keyboard) * When using a gaming controller, please set up the layout using the optional buttons.

- **Simplified and realistic operation of the handles**

In the settings screen, under the "185 Series Handle Operation" tab, it is possible to switch the operation mode between "simplified" and "realistic".
With the "realistic" mode, it is possible to operate the direct air reserve brake and the automatic air brake.
The "simplified" setting allows the use of the same controls of other 2-handle trains (like the 211 series).

The automatic air brake : controls the braking of the entire train. It reduces the braking force by applying air pressure.

「M」 key : Keeps brake handle at Drive Position.
「 , 」 key : Drive Position when held down. When released, the brake handle moves to "Keep" position and holds air pressure.
「 . 」 key : NB (Service Brake) when held down. When released, the brake handle moves to "Keep" position and holds air pressure.
「 / 」 key : EB (Emergency Brake)



The direct air reserve brake : The brakes are applied by rotating the handle between 1° ~67° or 80° . It will loosen by releasing the air pressure.

「M」 key : Drive
「K」 key : Reduces brakes
「L」 key : Applies brakes
「/」 key : EB (Emergency Brake)

7 Driving ② Traveling

TSP-type ATS system (TOBU SKYTREE Line)

・Train models that support the TSP-type ATS system are equipped with indicators as shown below. It shows the upcoming speed check and ATS operation info.
・When the forward signal shows a caution (single yellow) signal, or when approaching the next stop, the "60" indicator will light on. Immediately reduce speed under 60 km/h.
・If the train speed hits the speed pattern, emergency brakes will apply automatically until it reaches the speed limit.

When the train approaches a caution signal or the next stop

the "60" indicator will light on .

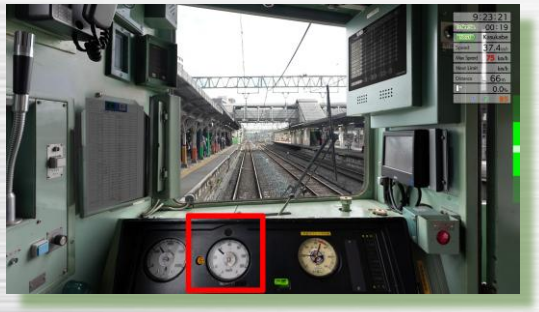
"60" indicator lights on

When this indicator lights on, a speed pattern to 60km/h will start. Immediately reduce speed not to hit the pattern.

Brakes apply

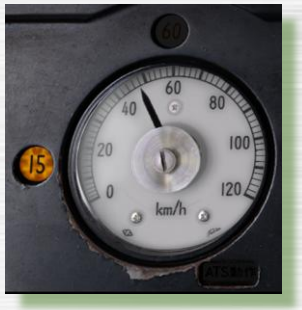
When the red indicator below the speedometer lights on shows that the emergency brakes have applied. Once the speed reaches 60 km/h, the brakes will be released.

・When the forward signal shows a stop (red) signal, or after the train enters the next stop, the "15" indicator will light on.
If so, reduce speed under 15km/h before reaching the speed-check point.
・If the train fails to reduce speed before reaching the speed-check point, the emergency brakes will apply automatically, and the train will stop.
(If the "15" indicator is lit on for a stopping station, the emergency brakes will apply, and will reduce speed below 15 km/h.)
・If the train stops due to an overspeed against a stop signal, a reset action is required. To restart after the emergency brakes were applied,
set the brakes to "Emergency" position. (Regardless of the settings, the reset action will be done automatically after setting the brakes to "Emergency" position.)



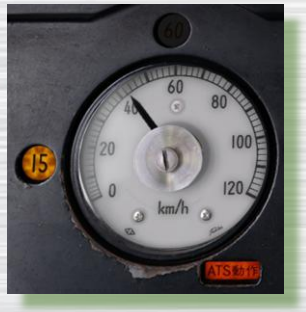
When the train approaches a stop signal or enters the next stop

the "15" indicator will light on.



"15" indicator lights on

When this indicator lights on, a speed pattern to 15km/h will start.



Brakes apply

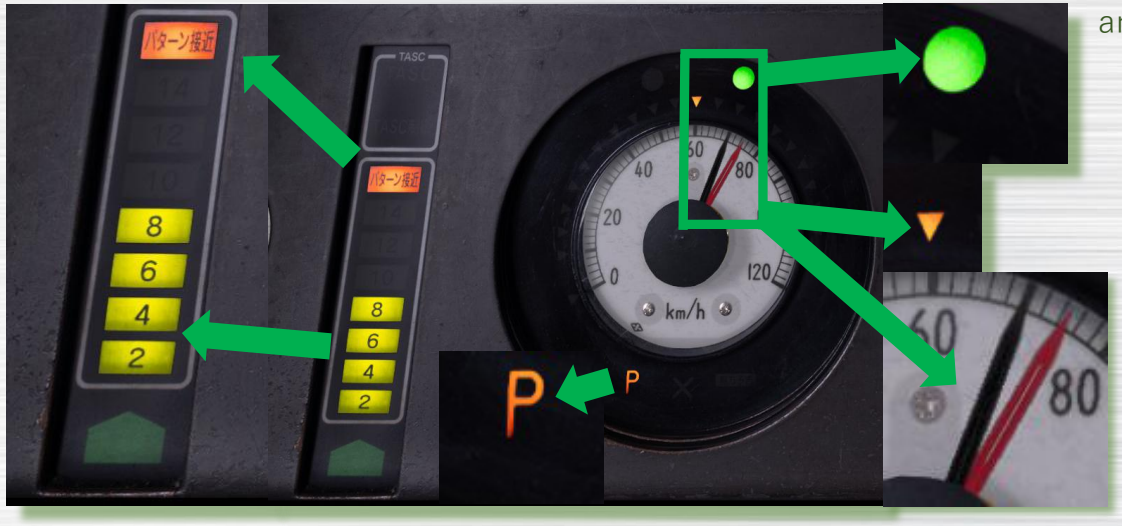
When the red indicator below the speedometer lights on shows that the emergency brakes have applied. If the train stops, you can restart by setting the brakes to "Emergency" position.

7 Driving ② Traveling

T-DATC system (Tobu Tojo Line)

・Train models that support T-DATC are equipped with indicators as shown below.

Route opening indicator
This indicator shows the route opening information every 200m ahead.
Also, the amber indicator on the top lights on with a buzzer when the current speed is within 5 km/h from the speed limit.



"P" indicator
It is lit when an ATC speed check pattern is predicted.

ATC signal
A green lamp is shown as in the picture when a clear signal is ahead,
and a red lamp is shown when a stop signal is ahead.

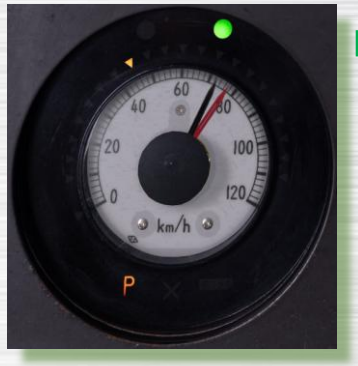
Speed limit notice indicator
The amber arrow shows the approaching speed limit.

"Red needle"
The speedometer's red needle shows the current speed limit and speed pattern.
The running speed should be under the speed indicated by the red needle.
When the running speed is faster than the speed indicated by the red needle, brakes will apply automatically until it reaches under the red needle speed.

・Process of speed-limit-deceleration

The arrow and the red needle shows the same speed limit.

The arrow shows 45km/h speed limit, and the "P" indicator lights on.



The Red needle drops, and the pattern starts.

The deceleration ends.

7 Driving ② Traveling

Tobu lines driving operation (Keyboard) * When using a gaming controller, please set up the layout using the optional buttons.

●Communication buzzer signal

On Tobu lines, the conductor sends a double buzzer signal when approaching to a stopping station.
When it is heard, send back a single buzzer ("B") and inform the conductor that you have recognized the stop.

Process to stop at stations

Heading to the station

The conductor sends a double buzzer signal.

Send back a single buzzer signal.

Braking starts

Adjust the brakes to stop at the stopping point.

Arrival at the station

8 Driving ③ Stop

The objective is to stop at the marked stopping point at the next station.

If you stop within a margin of 5 metres from the stopping point (can be configured from the settings menu), the doors will open.

If you go past the stopping point, the simulation will automatically take you to the correct position.
(From the settings menu, this operation can be changed to manual)

9 Pause

While driving, press the Escape key to pause, and once again to resume.
From the pause screen, you can select a different station.
[Setting] : HUD display and volume adjustment.
You can also end play, by choosing [End play], and the game will go back to the main menu.

Pause screen

10 Mouse and Keyboard Controls

Mouse Controls

Apply / Release brakes・・・・・・・・・・Scroll wheel UP ↑ ／ Scroll wheel DOWN ↓

(If the KiHa54・185 Series Handle Operation is set to "realistic", the KiHa54 brakes will have 4 positions: drive → keep →NB →EB
the Series185 brakes will be positions: drive → 1° ～67° →80° → keep →NB →EB)

Apply / Release accelerator・・・・・・・・Scroll wheel UP ↑ ／ Scroll wheel DOWN ↓

Neutral gear (no brakes or acceleration)・・・・Scroll wheel click

Keyboard Controls

・1-handle driver console controls:
(e.g. E233 series)

Emergency Brakes・・・・・・・[1]

Braking/Throttle down・・・・・[Q]

Neutral gear ・・・・・・・・・・[S]
(no brakes or throttle)

Release brakes/Throttle up・・・[Z]

・2-handle console controls:
(e.g. 211series)

Emergency Brakes・・・・・・[/]

Braking・・・・・・・・・・・[.]

Release brakes ・・・・・・・・[,]

Neutral gear (no brakes) ・・・[M]

Throttle up ・・・・・・・・・[Z]

Throttle down・・・・・・・・[A]

Neutral gear (no throttle)・・・[S]

10 Mouse and Keyboard Controls

- **185 series controls**

Brakes: EB position ・・・・「/」
Braking ・・・・・・・・・・「L」
Release brakes ・・・・・・「K」
Brakes: NB position ・・・・「.」Hold
Brakes: "keep" position ・・・「,」Hold
Brakes: "drive" position ・・・「M」
Increase acceleration ・・・・「Z」
Reduce acceleration ・・・・「A」
Neutral gear ・・・・・・・・「S」
Reduce hold brakes ・・・・・「A」
Increase hold brakes ・・・・「Q」
acceleration and Hold brakes off ・「S」

- **KiHa 54 series controls**

Brakes: EB position ・・・・・・・・・・[/]
Brakes: NB position ・・・・・・・・・ [.] Hold
Brakes: "keep" position ・・・・・・・・ [,] Hold
Brakes: "drive" position ・・・・・・・ [M]
Increase acceleration ・・・・・・・・・[Z]
Reduce acceleration ・・・・・・・・・[A]
Neutral gear ・・・・・・・・・・・・・[S]
Gear shift handle set to "direct" ・・・・[R]
Gear shift handle set to "change" ・・・・[F]

10 Mouse and Keyboard Controls

Keyboard Controls

- **Other controls:**

* Not available for the train model that doesn't have the equipment.

Show/Hide cabin view ・・・・・・[C]
Show/Hide HUD・・・・・・・・・[V]
Pause game・・・・・・・・・・・[Esc]

Reverser Forward/Reverse ・・・・[Up↑] ／ 「Down↓]
Deadman switch reset ・・・・・・[E]
Horn (Level 1)・・・・・・・・・[Enter] / [Back Space]
Horn (Level 2)・・・・・・・・・[Back Space] *Only for models with 2 levels
Musical horn/Electric horn ・・・[H] *Only for models with Musical horn

ATS confirmation Button ・・・・・・[Space]
Alarm stop Button ・・・・・・・・・[X]
ATS Reset Switch (Service) ・・・・・[Y]
ATS Reset Switch (Emergency) ・・・[U]
Communication buzzer ・・・・・・・[B]

Inching Button ・・・・・・・・・・・・・・・・・・[I]
Cruise control/Speed suppression (2) Button ・・・[W]
Speed Suppression (1) Button ・・・・・・・・・・[D]
Hill start Button ・・・・・・・・・・・・・・・・・[G]
TASC off Switch ・・・・・・・・・・・・・・・・・[T]

11 Xbox Controller Controls

[Back/View]**Switch between driver console perspective / Drive controls**

[LT] **Horn**

Half push・・・Horn (Level 1)

Deep push・・・Horn (Level 2)

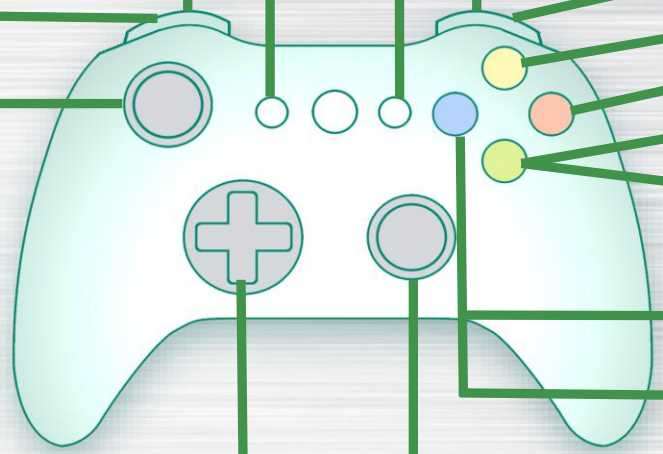
*Only for models with 2 levels

[LB] **ATS confirmation Button**

[Left stick] **Reverser**

↑ ・・・ Forward

↓ ・・・ Reverse



[Directional pad] **Master controller**

↑ ・・・ Main handle throttle down

← ・・・ Main handle neutral gear (no throttle)

→ ・・・ Main handle emergency position

↓ ・・・ Main handle throttle up

[Start/Menu] **Pause**

[RT] **Deadman switch reset**

[RB] **Alarm stop Button**

[Y] **Communication buzzer**

[B] **Cruise control/Speed suppression (2)**

[A] **Braking**

*Only for two-handle type

[A held down] **Automatic air brakes NB position**

(Only for 185 series. Release to hold the air pressure (of the brakes))

[X] **Release brakes**

*Only for two-handle type

[X held down] **Automatic air brakes Drive position**

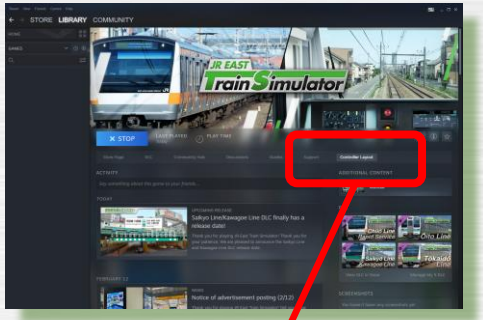
(Only for 185 series. Release to hold the air pressure (of the brakes))

[Right stick] **(For Direct air reserve brakes) When tilted to the right, the handle's angle raises. In reverse, the handle's angle is lowered.**

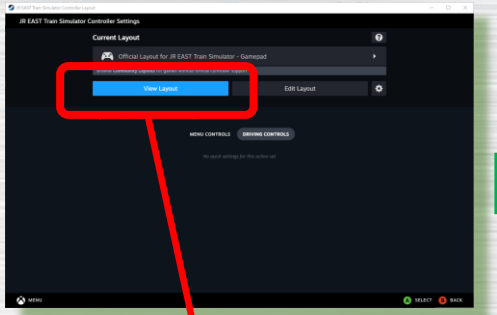
[R3] **Hill-holder, Direct air reserve brake handle 80-degree position**

12 Controller Layout

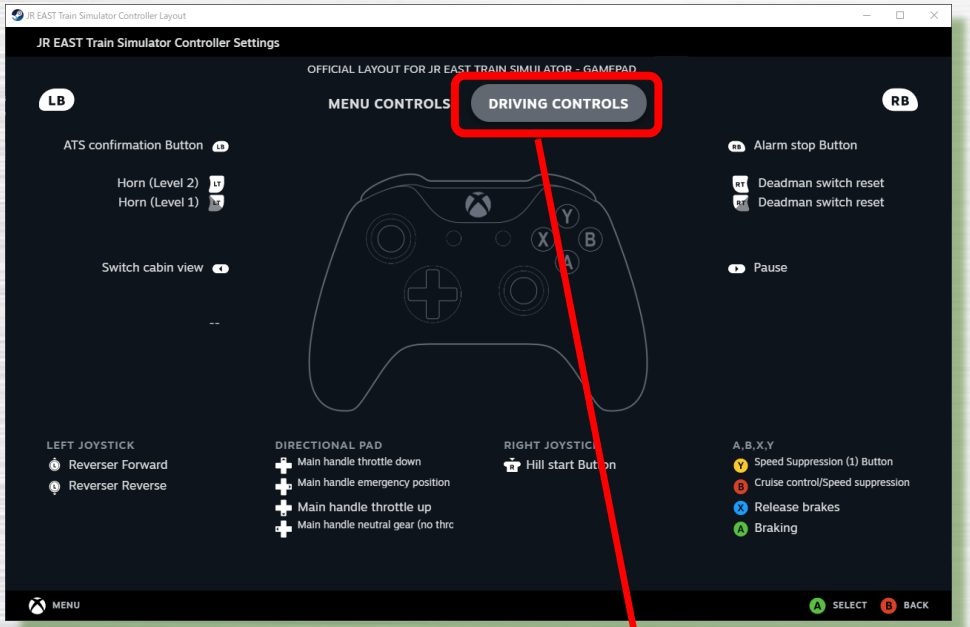
This simulator can be operated with any Steam supported controller.
After connecting the controller, you can edit the layout of the buttons from Steam's 「Controller Layout」 page.

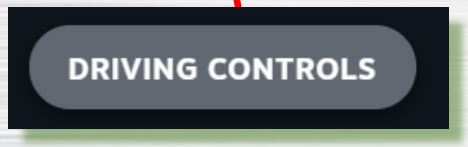


From the Steam library page, select 「**Controller Layout**」



In the controller setting screen, select 「**View Layout**」





Select 「**Driving Controls**」

It is possible to change the controller layout while operating the simulator from the Steam overlay (Shift + Tab) and selecting 「controller settings」

13 ZUIKI MASCON Registration and Configuration

This simulator can be operated using the ZUIKI MASCON by ZUIKI Inc.
When using the ZUIKI MASCON for the first time, follow these instruction for its connection and configuration.
These settings will be recognised automatically at every following use.

1. Connect the ZUIKI MASCON to the PC

2. Configure the button layout into the Steam client

【Supported serial numbers】ZKNS-001, ZKNS-002, ZKNS-011, ZKNS-012 , ZKNS-013
(check the bottom of your controller)

13 ZUIKI MASCON Registration and Configuration

1．Connect the ZUIKI MASCON to your PC

① Set the lever on the ZUIKI MASCON to the "N" position and connect to the PC's USB port

② Check that the "ZUIKI" mark on the controller lights up blue

2．Configuration of the button layout in the Steam client (button function designation)

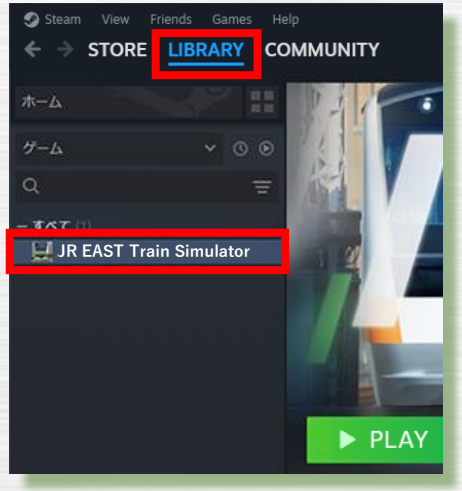
① After checking that the "ZUIKI" mark on the controller is lit blue, start the Steam client

② Go to "Library" in the Steam client and select "Train Simulator" from the menu on the left.

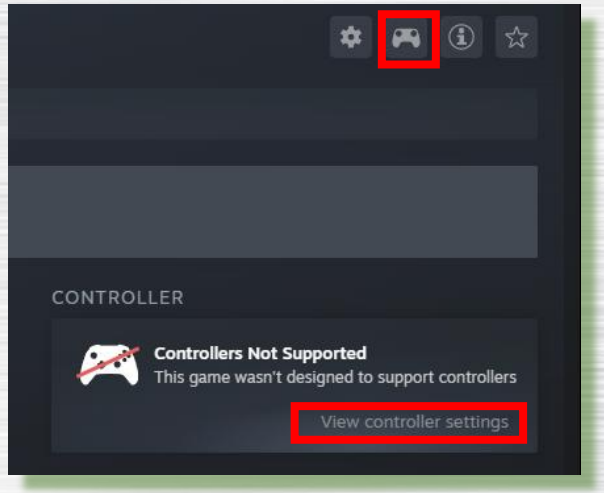
③ Once the "Train Simulator" page is open, click on the controller symbol or "View controller settings" on the right-hand side of the screen.

④ If the Steam input screen appears, click "next" and "OK" and then continue.

(it will show the first time ZKNS-002, ZKNS-011, ZKNS-012 and ZKNS-013 are connected)



② Click “Library” → “JR East Train Simulator”



③ Click the controller symbol or“View controller settings”

13 ZUIKI MASCON Registration and Configuration

④ If the Steam input screen appears, click "next" and "OK" and then continue.
(it will show the first time ZKNS-002, ZKNS-011, ZKNS-012 and ZKNS-013 are connected)

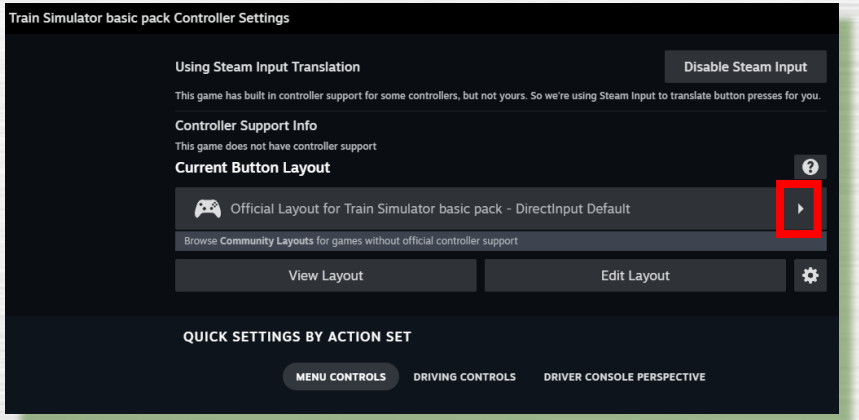
④ If the Steam input screen appears, click "next" and "OK" and then continue

13 ZUIKI MASCON Registration and Configuration

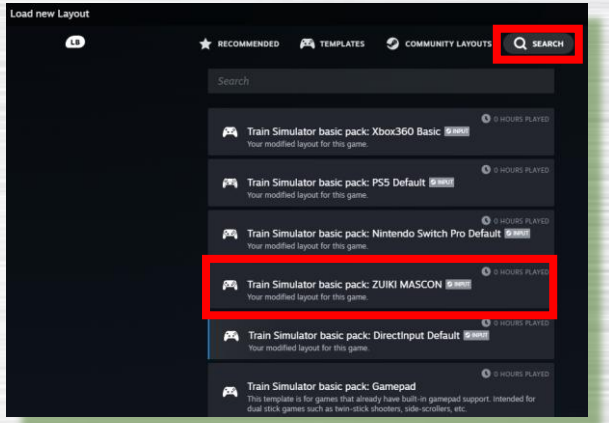
⑤ Once the "Train simulator Controller Settings" pop-up appears, click the "▶" on the right side of the “Current Button Layout” section.

⑥ The "Load new Layout" screen will appear, and clicking "Search", a list of layouts will be shown. From the list, select the one for the ZUIKI controller.

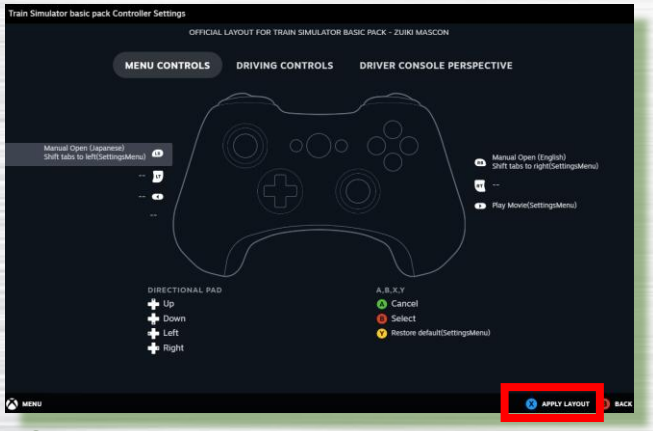
⑦ Once the controller layout appears, click "X　apply layout" on the bottom right, and return to the top page of the Steam client.
The controller is now set up and ready to use.



⑤ In the “Train simulator Controller Settings” screen click the ▶ on the right side of the “Current Button Layout” section



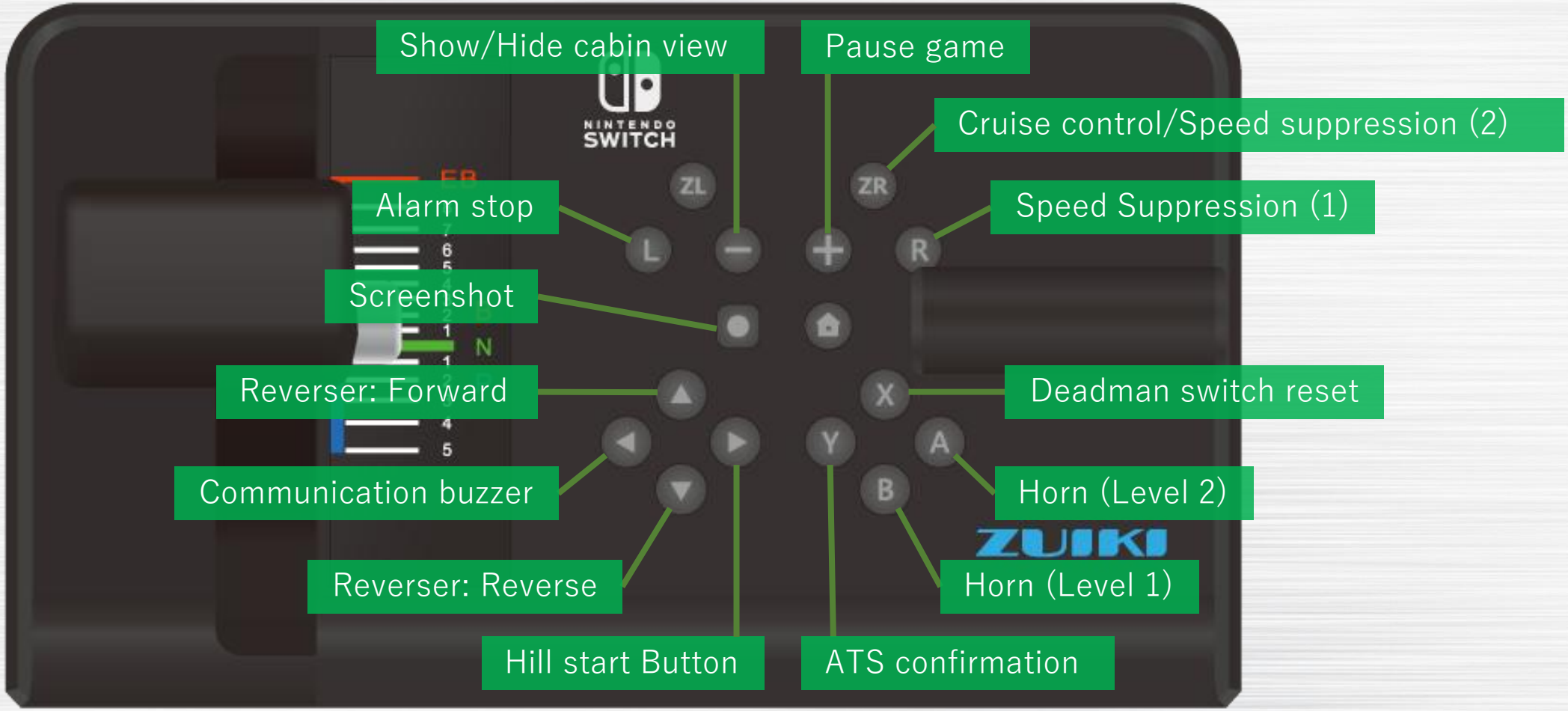
⑥ In the "Load new Layout" screen, click "Search" and select the Zuiki layout



⑦ Once the controller layout appears, click “X　apply layout” on the bottom right, and return to the top page of the Steam client.

13 ZUIKI MASCON Registration and Configuration

The default layout for the ZUIKI MASCON is as follows:
(It is also possible to personalise your controller layout freely from the Steam Client controller settings.)



***Please do not use the ZL button.**

14 JR East Train Simulator Official Master Controller Unit Settings

This simulator is compatible with JR East Train Simulator official Master controller unit.
(Hereon “official controller ".)

1．Connect the official controller to your PC

2．Disable Steam Input

1．Connect the official controller to your PC

①Connect the official controller and launch the Steam client.

② Lamps 1 and 2 on the controller will light up.

14 JR East Train Simulator Official Master Controller Unit Settings

2． Disable Steam Input

① Go to “Library” in the Steam client and select “Train Simulator” from the menu on the left.

② Once the “Train Simulator” page is open, click on the controller symbol or “View controller settings” on the right-hand side of the screen.

③ In the Steam input screen, select “Disable Steam input”.
(If "Enable Steam Input" is displayed instead, the setup is already complete.)

④ When you see "Enable Steam Input", the setup is complete.

The controller is now set up and ready to use.

② Click the controller icon on the right side of the screen

③Click "Disable Steam Input"

④completion

15 Settings

You can change or adjust all kinds of settings on this screen.
When you select a setting item, a description of the setting and a preview are displayed on the right.

Restore Default・・・Reset settings to default

Play Movie ・・・・・Play the introduction video

System setting screen

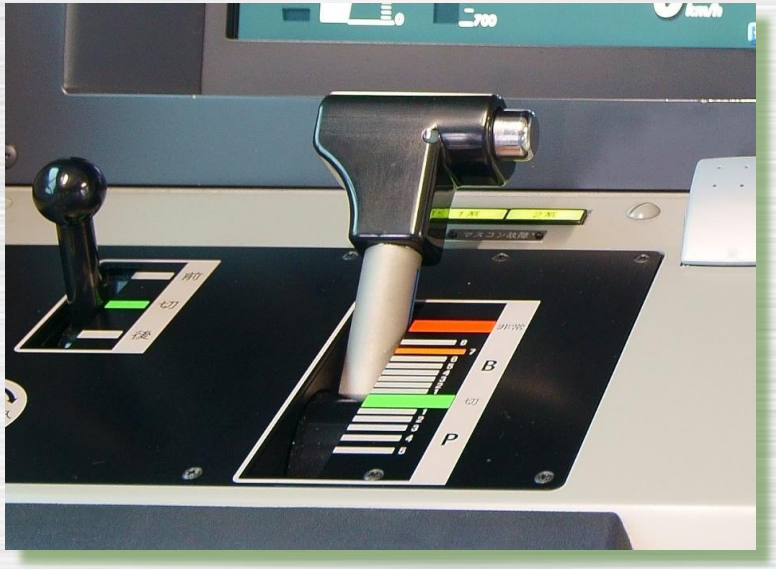
Display setting screen

16 Train model introduction: E233 Series 1000 model

The E233 series is a Direct Current electric train that made its appearance in 2006, and the 1000 model was based on the Series 0 model developed for the Chuo line rapid service, for use on the Keihin-Tohoku line.

As "durability", "comfort", and "better announcements and performance" are shared concepts across the trains of the 233 series, it adopts many universal design and accessibility features, like lower hanging straps and luggage racks in the first car and near the priority seats, as well as longer handrails, and a clear indications marking the priority seats area; compared to the other series it has a smaller gap between the carriage and the platform, more comfortable seating and more space available to each seated passenger.

The master controller consists of one lever, and the driver controls the speed of the train using the single handle on the left side of the console.
It employs the D-ATC train protection system, and the signals and traffic signals are not physical, but appear directly on the speedometer screen.



17 Train model introduction: KiHa 110 Series 200 model

The KiHa 110 series was introduced in 1990 by JR East to offer better service on rural lines. It has different variants, such as car length, coach configuration (single or twin coaches), and is used on different lines depending on its conditions.
Due to its acceleration performance as an EMU, it increased travel speed on rural lines. Its interior mainly consists of transverse seating with partial longitudinal seating, although there are other variations, such as all-longitudinal seating, reclining seats, and seats that rotate and face the window for observation.

The train is operated with two handles, with acceleration controlled by the driver's left hand and braking controlled by the right hand.

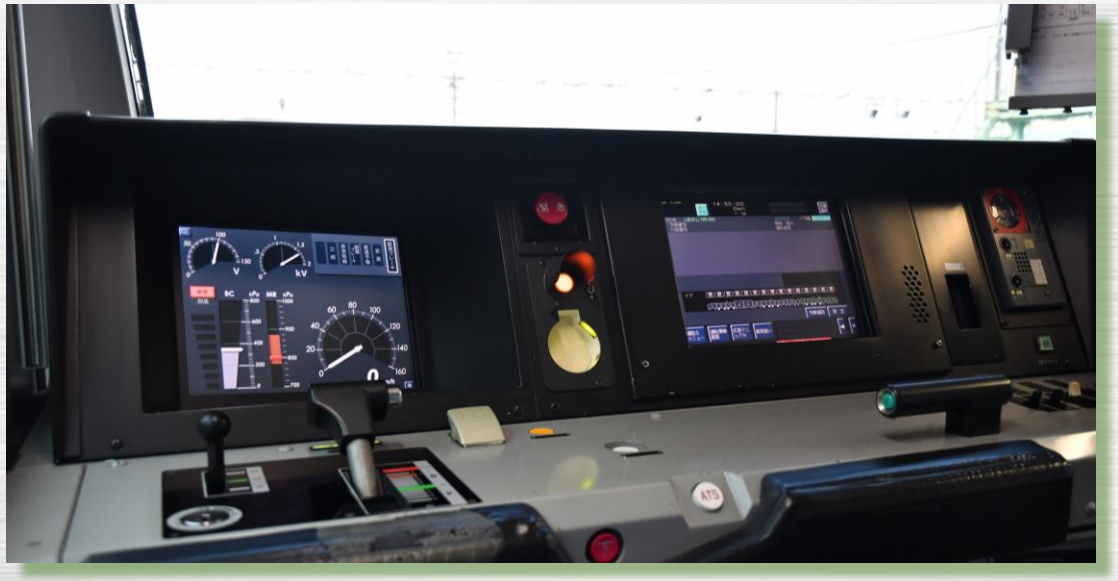
It uses ATS-P and ATS-Ps as protection systems. On the Hachiko line, it uses ATS-P, which operates based on trackside signals.

18 Train model introduction: E233 Series 3000 model

The E233 series 3000 model is a Direct Current electric train that made its appearance in 2008, derived from the Chuo line rapid service model 0, it was developed to be used on the Tokaido, Takasaki and Utsunomiya Lines.

Designed to be used coupled with the E231 series, in use since 2000, things like its acceleration were set up to match with the E231; the standard setup is a 10 car train with two bi-level green cars.

The master controller consists of one lever, and the driver controls the speed of the train using the single handle on the left side of the console.
For the safety system, it uses the ATS-P system, and the driver follows the signalling along the rails while driving.



19 Train model introduction: E233 Series 0 model

The E233 series is a Direct Current electric train that made its appearance in 2006, and its first model, the model 0, was developed to be used on the Chuo line rapid service.

For better reliability, all the critical safety and mechanical systems like the pantograph are redundant (doubled), so that if one fails, there is a backup that allows for uninterrupted service. The fontal part is constructed to absorb impacts, so that in case of a collision the driver and the passengers are protected from breakages.

The master controller consists of one lever, and the driver controls the speed of the train using the single handle on the left side of the console.
For the safety system, it uses the ATS-P system, and the driver follows the signalling along the rails while driving.

20 Train model introduction: 211 Series

The 211 series is a semi-long seat electric train that made its appearance in 1985. Aiming for an energy conserving, low maintenance train, the interiors and equipment in use until then were fundamentally revised, for example the frame was made of lightweight steel and regenerative braking was introduced.

1000 and 3000 model were Initially designed for the Takasaki/Utsunomiya lines, since the Oito line runs through Nagano prefecture, part of the equipment of the 3-car setup was modified to be snow-resistant, along other modifications like changing to smaller pantographs to fit narrow tunnels, and rewrapping of the exterior.

The master controller is a two-handle type, and the driver controls the acceleration with the handle on the left side of the console, and brakes with the one on the right.

For the safety system, on the Oito line it uses both the ATS-P and ATS-Ps systems, and the driver follows the signalling along the rails and ATS-Ps indicator on the driver console while driving.

21 Train model introduction: 205 Series 3100 model

The 205-3100 series was introduced in 2002 to replace the 103 series on the Senseki Line, rebuilt from former 205-0 series cars. With its stainless steel body, these train sets do not require regular painting, which reduces maintenance costs. Also, by adopting the field system superimposed field excitation control, they were equipped with electric regenerative brakes, which use brake energy more effectively without complex electrical equipment.

The train is operated with a single handle, with both acceleration and braking controlled by the driver's left hand.

It uses ATACS and ATS-Ps as protection systems. From Aobadōri to Higashi-Shiogama, the trains use ATACS, which operates based on the speed limits or stop signals displayed on the speedometer. From Higashi-Shiogama to Ishinomaki, the trains use ATS-Ps, which operates based on trackside signals and ATS-P cab-signaling speed indicators.

22 Train model introduction: E129 Series

The E129 series is a DC EMU train for the Niigata area, based on the technology developed by the E233 series trains. It was introduced in 2014 to replace the 115 series, which was the main rolling stock in the area. In terms of passenger accommodation, it features interiors based on Universal Design, wider seating, and additional information displays inside and outside the train.

The train is operated with a single handle, with both acceleration and braking controlled by the driver's left hand.

It uses ATS-Ps as protection system, which operates based on trackside signals and ATS-P cab-signalling speed indicators.

23 Train model introduction: KiHa E130 Series 500 model

The KiHa E130 Series 500 model, which was introduced in 2017, is a DMU for the Hachinohe Line. It is based on earlier models, such as the 0 model for the Suigun Line and the 100 model for the Kururi Line. It consists of the single-car KiHa E130 type and the two-car KiHa E131 and KiHa E132 type unit. These three types allow trains to operate with a variety of 2 to 4 cars.

As a DMU operated by JR East, it is the first series to have a stainless-steel body. To handle the crowdedness of rush hours, it has three doors per side. Its exterior blue line represents the horizon, symbolising the Hachinohe line's sea, and the sea waves and seagulls by the exterior line's waves.

To reduce smoke and noise emissions, the engine's injection pump features a high-pressure electronic control system, which injects the optimal amount of fuel to achieve combustion.