BVE Oito Line User Guide

Oito Line Study Group

REV6 R.3-3-4

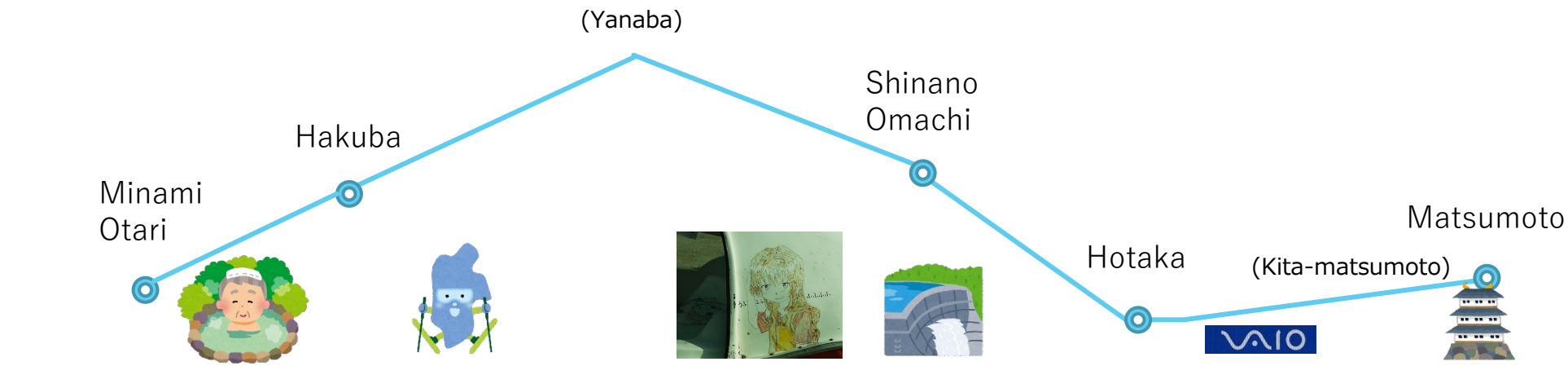
Disclaimer

- ⚠ IntroductionThis train operating procedures described in this document are for BVE Trainsim purpose only, andmay be different from real train operations.
- ⚠ We do not bear any responsibility for your own use of this add-on and any other materials or information.
- ⚠ To use this add-on you need a computer with Windows 8.1 or 10 running BVE Uchibo line on BVE trainsim 5.8/6.0 or later.

Map Overview

- BVE Trainsim Oito Line Pack features the below 118 kilometers journey from Minami-Otari on the Oito Line to Okaya and Tatsuno on the Chuo (East) Line. (The journey section varies depending on the scenario.)

Oito Line Overview

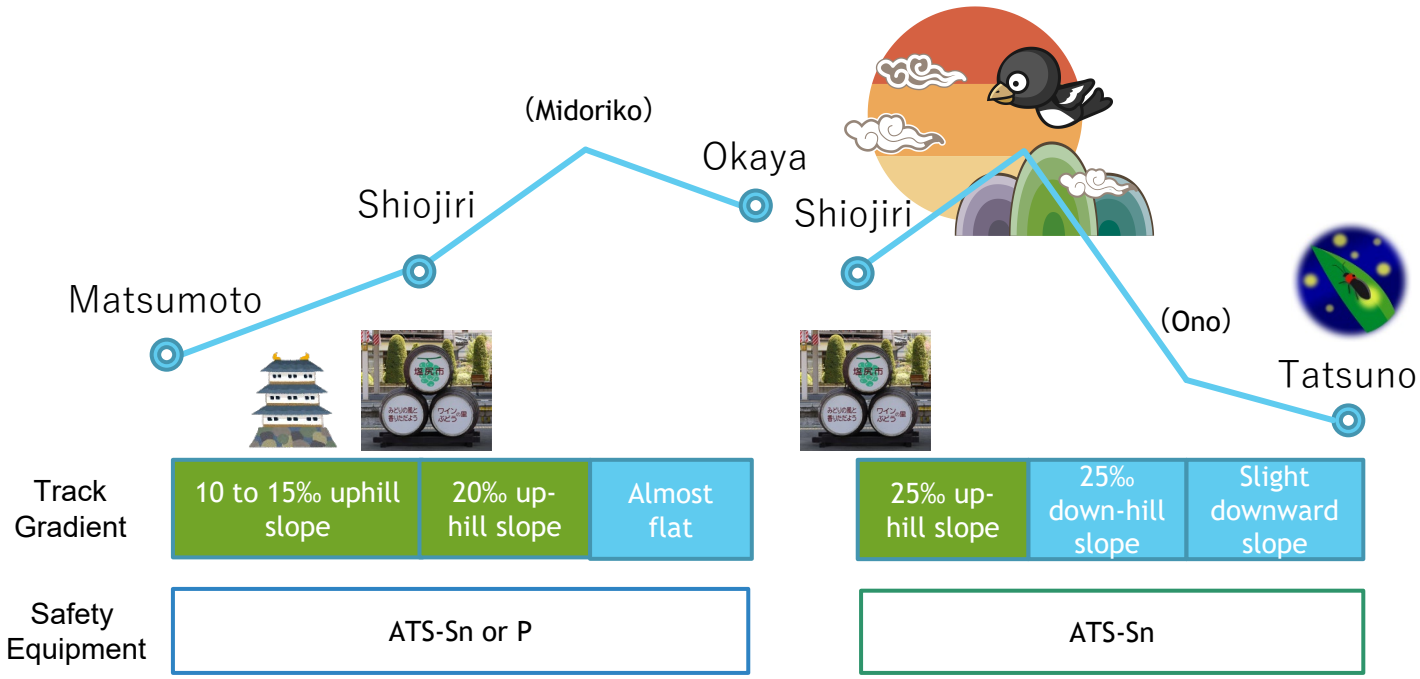


This add-on does not simulate one-man door opening/closing and ATS-Ps.

Map Overview

- BVE Trainsim Oito Line Pack features the below 118 kilometers journey from Minami-Otari on the Oito Line to Okaya and Tatsuno on the Chuo (East) Line. (The journey section varies depending on the scenario.)

Chuo (East) Line Overview



Scenarios

- The Oito Line can be operated in the following four different scenarios.

	特急しなの84号 (Ltd. Exp. Shinano NO.84)	中央東線直通普通1538M (Chuo East Line 1538M)	普通334M (Local 153M)	特急あずさ26号 (Ltd. Exp. Azusa NO.26)
				
Rolling Stock	383 EMU 4 cars (Panel presented by Mr.gutti)	211 EMU 3 cars (Presented by Mr.Shallow-field)	E127 EMU 2 cars (Presented by Mr.gutti and Mr.Nihoncha)	E257 EMU 9 cars (Panel presented by Mr.Nihoncha)
Controller Positions	Power 5 steps Brake 抑速 and 7 steps Emergency Brake	Power 5 steps Brake 抑速 and 7 steps Emergency Brake	Power 5 steps Brake 抑速 and 7 steps Emergency Brake	Power 5 steps Brake 抑速 and 7 steps Emergency Brake
Journey from/to	Minami-Otari→Shiojiri (約83.6km)	Shinano-Omachi→Tatsuno (約66.6km)	Minami-Otari→Matsumoto (約70.1km)	Minami-Otari→Matsumoto (約70.1km)
Duration	約100分	約110分	約115分	約85分
Safety Equipment	ATS-Sn	ATS-Sn/P	ATS-Sn	ATS-Sn/P
Level	Easy	Normal	Hard	Hard

- 抑速(Holding Brake):use to keep constant on a downhill.

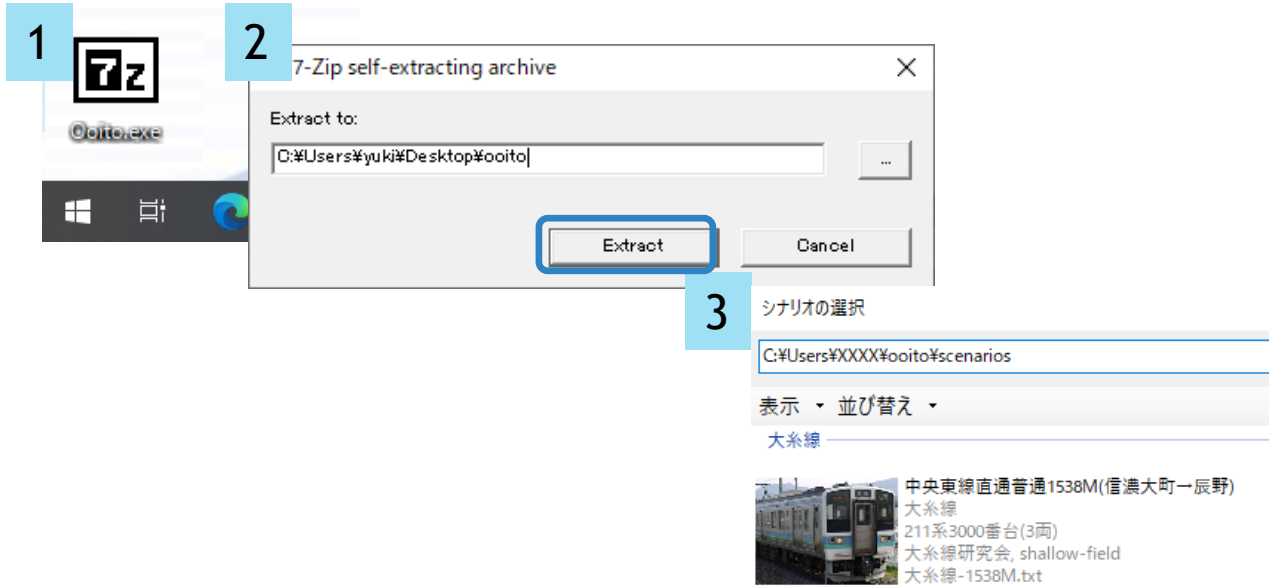
Scenarios

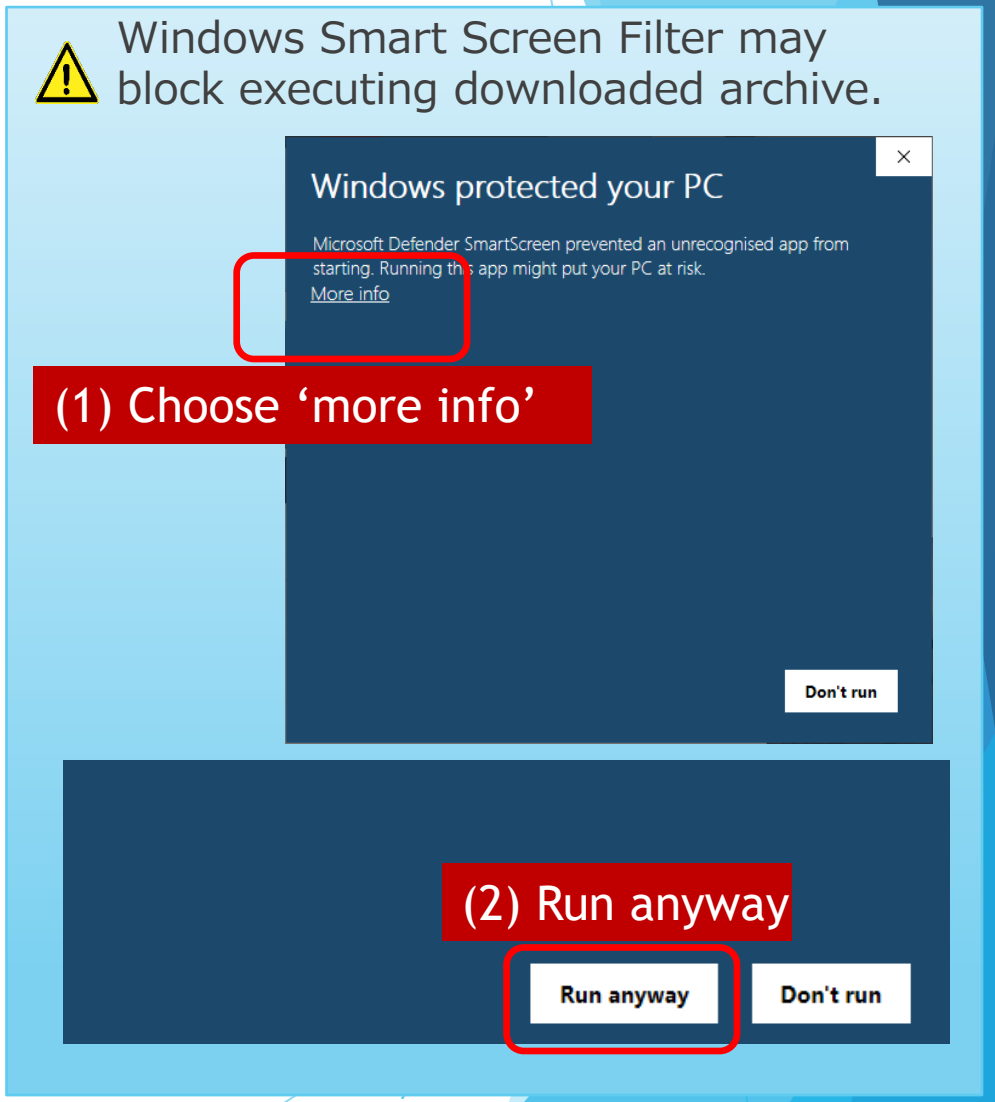
- The Chuo (East) Line can be operated in the following two scenarios.

	特急あずさ26号 (Ltd. Exp. Azusa NO.26)	諏訪しなの号 (Ltd. Exp. Suwa-Shinano)
		
Rolling Stock	E257 EMU 11 cars (Panel presented by Mr.Nihoncha)	383 EMU 4 cars (Panel presented by Mr.gutti)
Controller Positions	Power 5 steps Brake 抑速 and 7 steps Emergency Brake	Power 5 steps Brake 抑速 and 7 steps Emergency Brake
Journey from/to	Matsumoto→Okaya (約25.0km)	Shiojiri→Okaya (約12.7km)
Duration	約20分	約10分
Safety Equipment	ATS-P	ATS-PT
Level	Normal	Normal

Installation

1. Double click on executable compressed archive file.
2. Choose your folder to extract scenario files and click ‘Extract’.
3. Launch BVE Trainsim and choose the path.





Troubleshooting

- If you see a message like the one shown in the figure, the "Microsoft Visual C++ Redistributable Package for Visual Studio 2019" is not installed.

- Follow the instructions on the BVE Trainsim download site to install it.

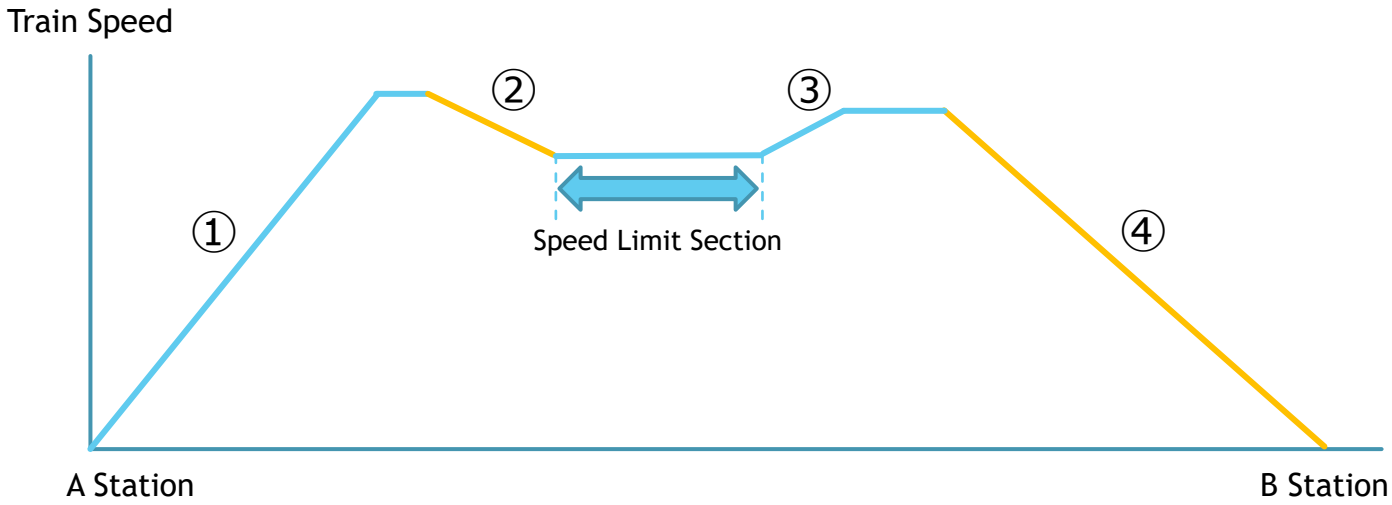
(ex) For BVE6.0

Install instructions

1. Click the **Download** on this page.
2. Open or extract the **bvets6-msi**.
3. Start **VC_redist.x64** to install the Visual C++ Redistributable Packages.
4. Start **BveTs6Setup** to install the BVE Trainsim.

How to drive

- On the Oito Line, distance between stations is short, and it requires snappy driving.
- Brakes are used up to B4 notch between Minami-Otari and Shinano-Omachi, and up to B5 notch from Shinano-Omachi.
- The following figure shows an example of operation.

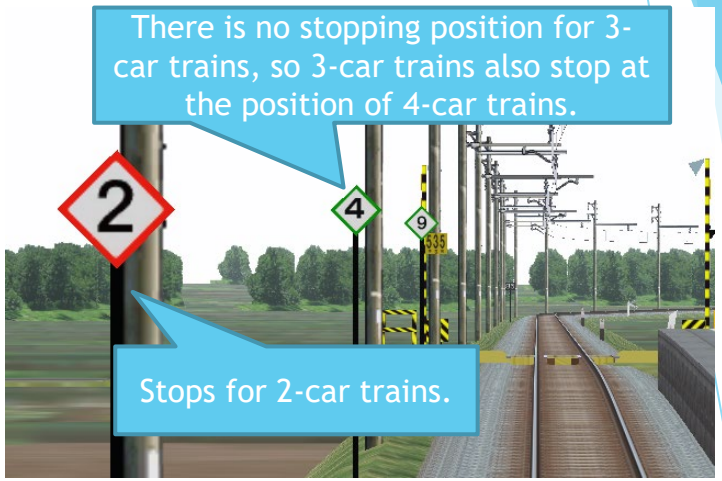


①Accelerate to required speed. ➡ ②Slow down with weak braking to match the speed limit. ➡ ③Once you're out of the speed limit, re-accelerate. ➡ ④them as the vehicle reaches the stop position.

How to drive

Station Stops

- At the station, the train will stop according to the target with the number of train cars on it.
- If there is no target stop position that matches the number of cars in the train, the train will stop at the stop position with the larger number of cars.



Special handling stations

- At technical stops (stops where the doors do not open), the train will depart after receiving a signal from the conductor (one long buzzer sound).
- At some stations, the conductor's buzzer signal is required at the time of departure, even during normal stops.

(The required stations are marked in the staff.)

南小谷		14.20		40	発車合図ブザー
千　国	(24 15	26 45)		30 90	

Stations that require a conductor's signal for departure.

Stations with times in parenthese is tecnical stop.

How to connect

Summary of connection method

- In the scenario of the Limited Express Azusa 26, the following flow of connecting operations will be performed upon arrival at Matsumoto Station.

Entry into the station

- Stop the train before the home signal in Matsumoto station.
- When the guidance signal appears, enter the station.

connecting operator on board

- Have the connection operator board the train at the "sign" in front of the platform.
- Follow the train operator's instructions to enter the platform.

Connection

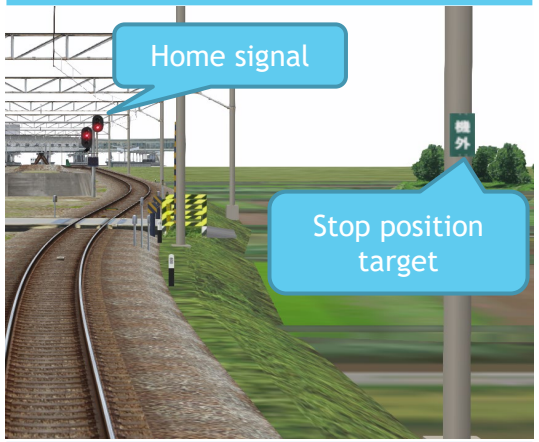
- Follow the instructions of the train operator to stop 3 meters before the coupling.
- Follow the instructions of the wheelwright to connect the cars.

How to connect

Entry into the station

- At Matsumoto Station, the train enters the station according to the guidance signal, as the additional trains have already entered the station.

Step1



Wait at the stop position target until the home signal becomes the guidance indication.

Step2

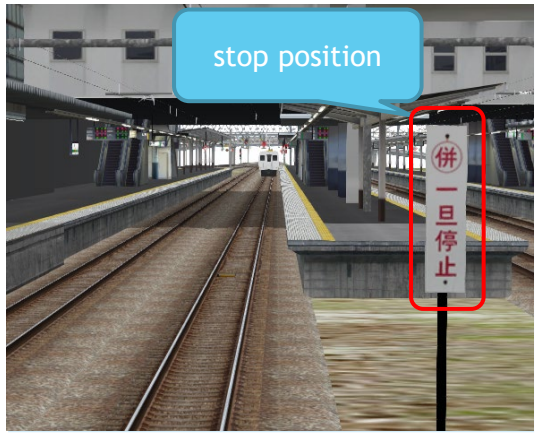
After the guidance indication, proceed to the next stop position at 15 km/h or less.

How to connect

connecting operator Boading

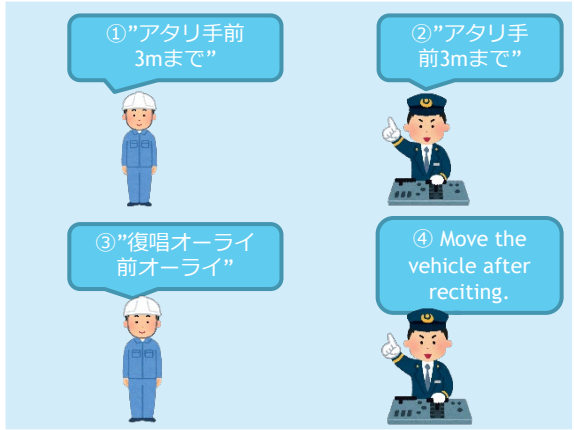
- Stop the train before entering the platform to allow the connecting operator to board. Once the coupling operator is on board, the vehicle is moved according to the instructions of the connecting operator.

Step3



Stop the vehicle at the target stopping position and load the connecting operator.

Step4



Recite the instructions of the connecting operator and move the vehicle to 3m before the connecting position.

⚠ The train will be moved only after receiving confirmation of the connecting operator's recitation.

How to connect

connection

- Stop the vehicle 3 meters in front of the connected train.
- Follow the instructions of the connecting operator to connect the trains.

Step5

Follow the driver's instruction to “TOMARE(stop)" and bring the train to a stop 3 meters before the coupling position.

Step6

Recite the train operator's instructions and connect the train. When instructed by the wheelwright to stop, apply the emergency brake.

⚠ The speed at the time of connecting should be about the same as the BVE guidance, which changes from 1km/h to 2km/h.
No whistle will be blown when the trains are connected.

ATS(Automatic Train Stop)

ATS-S

- ATS-S is used as train protection system. In the ATS-S section, the alarm sounds when the train passes over the beacon corresponding to the stop signal.
  - The handling is different when the signal ahead of the stop position is a stop signal and when the signal in front of the stop position is a stop signal. (See pp.16-17)
- When a certain amount of time has elapsed after the train enters the station of a stop, the timer for preventing false departures is activated and the emergency brake is applied. When the train comes to a stop, it will immediately stop at the specified position.

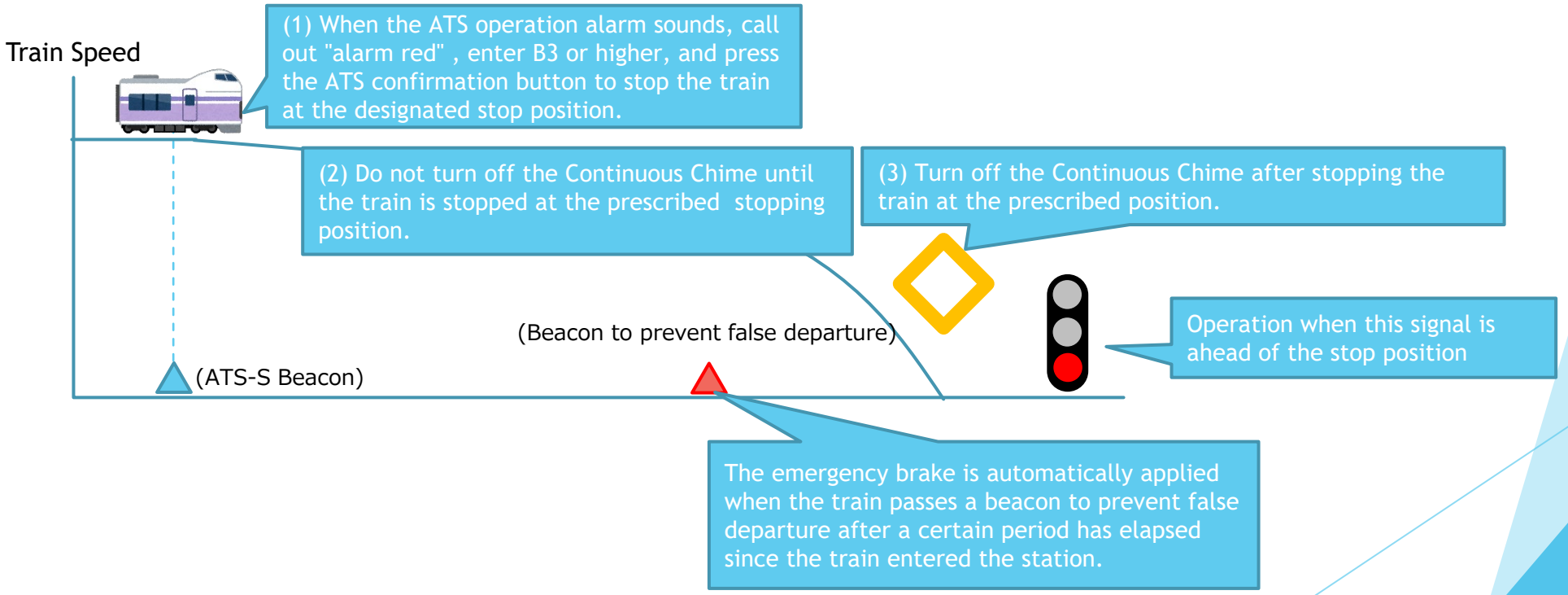
ATS-P

- Kita-Matsumoto - Shiojiri - Okaya, ATS-P is used as train protection system. ATS-P provides (1) red signal protection and (2) over speed protection for curve and point/turnout with gradually reducing curve (so called “Pattern”).

Operation of ATS-S

For the departure signal of a stop station

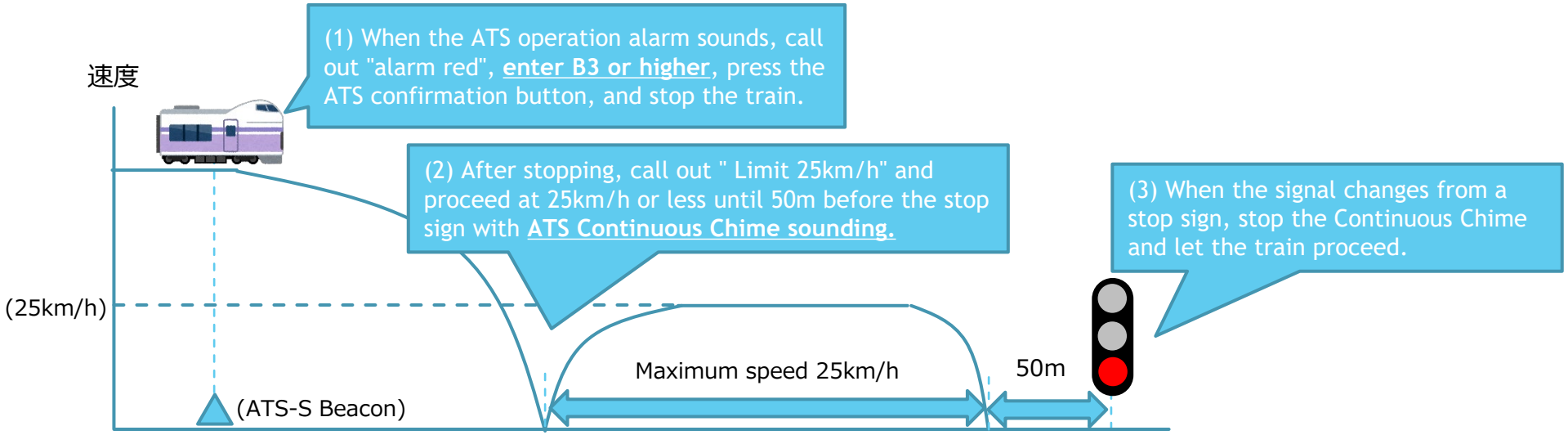
- In the ATS-S section, when the departure (equivalent) signal at the stop station is a stop signal, operate as follows.



Operation of ATS-S

Except for the departure signal of the stop station

- When a signal other than the departure signal at the stop station is a stop signal in the ATS-S section, operate as follows.

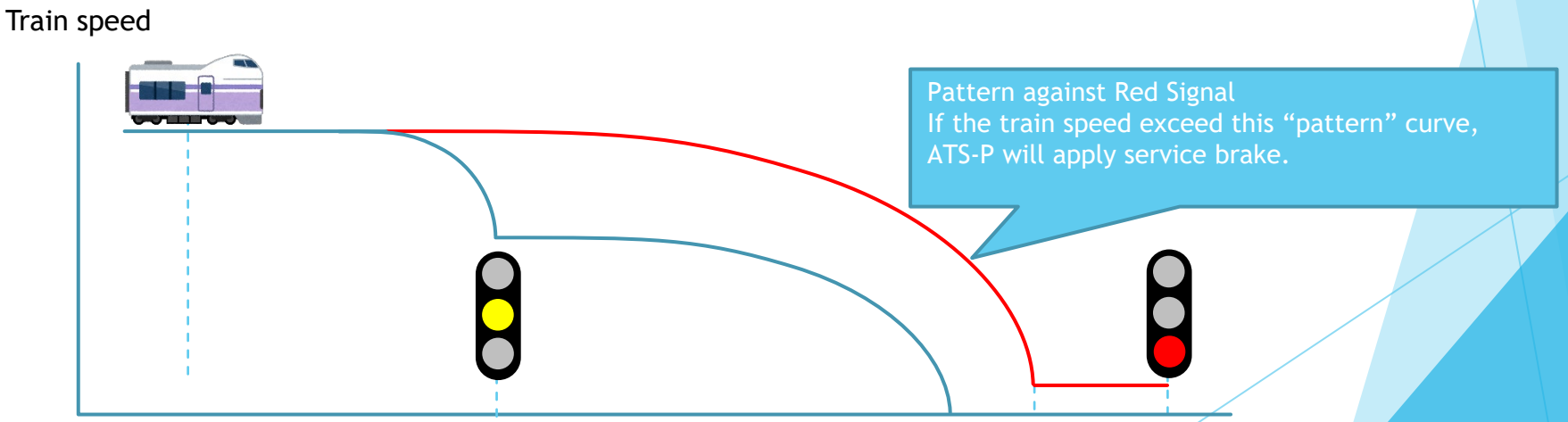


When the signal indicates something other than a stop, the Continuous Chime will stop, and the train will return to normal operation.

Operation of ATS-P

ATS-P

- When the train approaches near the pattern, ATS-P notifies driver with bell and yellow lamp “パターン接近”.
  - If the driver reducing their train speed accordingly, no additional operation is necessary.
- When the train runs faster than the pattern, ATS-P applies service brake and notifies driver by bell and yellow lamp “ブレーキ動作”



Operation of ATS

ATS switching

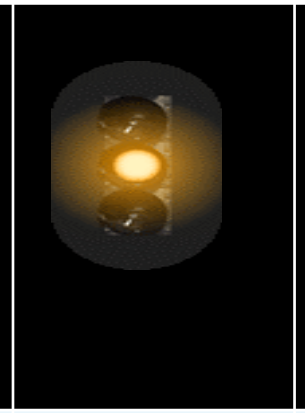
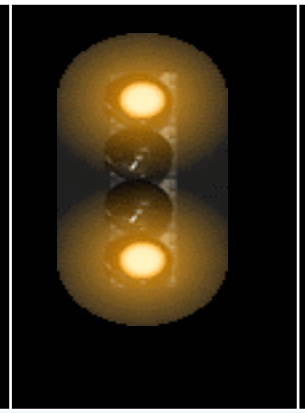
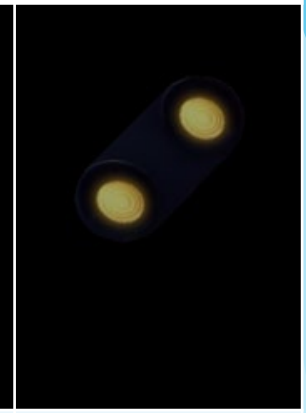
- The ATS switches automatically.
- When switching from P-type to Sn-type, a sustained chime will sound, so press the Insert key.

Cab Switches

キー名	操作ボタン名	説明
space	ATS confirmation	【ATS-Sn】When the train passes the ATS-S beacon, a warning chime will sound, so please apply the **brakes within 5 seconds** and press this button to confirm the ATS.
Insert	Stop Continuous Chime	【ATS-Sn】You can mute the chime after the ATS confirmation.
Home	ATS Reset	To reset ATS brake, manually move brake handle to the Emergency Brake position.
End	EB Reset	“EB” is a deadman’s switch which is activated after 60 seconds runningwith no activity. When the EB alarm is activated, press this key to reset, otherwise emergency brake will be applied.
Back Speace	Holding Brake	【383 EMU/E257 EMU】This functionality automatically keeps train speed at level or uphill track. This can be activated (1) if the train speed is higher than 60km/h and (2) master controller position is 383 EMU:P4 and P5, E257 EMU:P5
Page Up	Timetable Lamp	【E257 EMU】Selects whether to turn on or off the timetable lamp. This is used to check the timetable in a dark place such as in a tunnel.

Signaling System

- Each of them has speed limit and it varies on which section you are driving.

	Clear	Reduced Speed	Caution	Speed Restriction	Stop	guidance signal
						
Matsumoto to Shiojiri	Proceed at line speed	75km/h	55km/h	25km/h	進行不可	15km/h
Shiojiri – Hachioji (VIA Midoriko)	Proceed at line speed	75km/h	55km/h	25km/h	進行不可	15km/h
Other Section	Proceed at line speed	65km/h	45km/h	25km/h	進行不可	15km/h

Speed Limit

maximum permissible speed

- The maximum permissible speed of the train varies depending on the section as shown in the table below.

	E127 EMU/211 EMU	383EMU(Ltd. Exp.)	E257EMU(Ltd. Exp.)
Max. permissible speed	110km/h	120km/h	130km/h
Minami-Otari to Shiano-Omachi	85km/h	85km/h	85km/h
Shiano-Omachi to Mastumoto	95km/h	95km/h	95km/h
Matsumoto to Shiojiri	110km/h	120km/h	130km/h
Shiojiri to Hachioji (VIA Midoriko)	100km/h	120km/h	130km/h
Shiojiri to Tatsuno	95km/h	-	-

Speed Limit

Speed limits on downhill gradients

- Speed limits on downhill gradients are different for each train type.

	E127 EMU/211 EMU	383 EMU	E257 EMU
5‰ or less	110km/h	120km/h	130km/h
10‰ or less	110km/h	115km/h	125km/h
15‰ or less	105km/h	110km/h	120km/h
20‰ or less	100km/h	105km/h	115km/h
25‰ or less	95km/h	100km/h	110km/h

Speed Limit

Speed limit for curves without signs

- The operating speed on a curve varies depending on the section and type of train.

	E127 EMU/211 EMU	383 EMU	E257 EMU
Matsumoto to Shiojiri	Speed U	Speed KU	Speed O
Shiojiri to Hachioji (VIA Midoriko)	Speed I	Speed U	Speed O
Other Section	Speed I	Speed I	Speed I

- The speed limits for each operating speed are as follows

Curve Radius	Speed(km/h)				Curve Radius	Speed(km/h)				Curve Radius	Speed(km/h)			
	I	U	O	KU		I	U	O	KU		I	U	O	KU
Over 1400m	115	120	130	130	Over 500m	85	90	100	105	Over 225m	55	60	65	70
Over 1200m	110	115	125	130	Over 450m	80	85	95	100	Over 200m	50	55	60	65
Over 1000m	105	110	120	125	Over 400m	75	80	90	95	Over 175m	45	50	55	60
Over 800m	100	105	115	120	Over 350m	70	75	85	85	Over 150m	40	45	50	55
Over 700m	95	100	110	115	Over 300m	65	70	75	80					
Over 600m	90	95	105	110	Over 250m	60	65	70	75					

Speed Limit

Additional Information on Wayside Speed Limit Signs

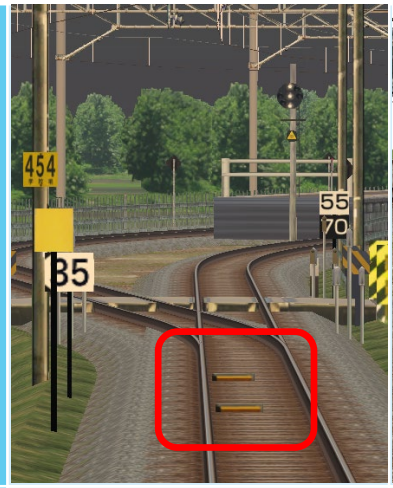
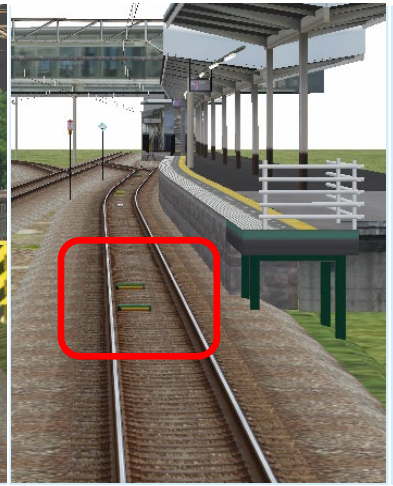
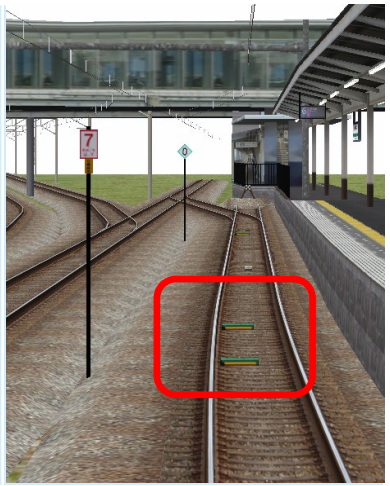
- Some of the speed limit signs are applied for the specific trains

	2 stage	3 stage-A	4 stage	3 stage-B	For E351 EMU	2 stage (Chuo Line)
画像						
E127/211	1st stage speed	2nd stage speed	2nd stage speed	1st stage speed +5km/h	Speed I	1st stage speed
383/E257	1st stage speed	2nd stage speed	3rd stage speed	2nd stage speed	Speed I	-

Speed Limit

Speed limit with speed verification

- Speed checks are conducted at stations where there is no margin for overrunning or before sharp curves.
- If a train passes a beacon while exceeding the speed check, the ATS will apply the emergency brake.
- The following are the locations where speed checks are conducted.

	Shimauchi	Matsumoto	Matsumoto
			
Speed Limit	70km/h	25km/h	7km/h
Scenarios	Local 1538M Azusa no.26	Local 334M	Local 334M

Speed Limits on Switches

Speed limits on Switches

- In the speed limit of turnouts, signs may be omitted mainly where the No. 10 turnout is used (35 km/h limit).
- When arriving or departing from a station, please refer to the Bve guidance or staff

⚠ The speed limit at the turnouts will be 100 km/h, even when a speed limit of 100 km/h or more is indicated, except for “Limited express” trains.

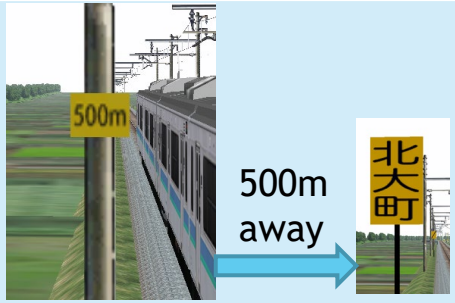
Other Signs and Signals

Whistle Blowing Sign	Whistle Blowing Sign (stop)	Whistle Blowing Sign (pass)
		
The whistle will be blown at the position of this sign.	When stopping at a station near a sign, the whistle will be blown at the position of the sign.	When passing a station near a sign, blow the whistle at the position of the sign.

Out of station stop targets	No movement signal (red)	No movement signal (white)
		
Trains will stop near this sign when the home signals are stopped for reasons such as a stop sign.	Indicates that the movement of the train/car is prohibited due to merging, splitting or inspection.	Indicates that the train/vehicle movement is no longer prohibited.

Other Signs

Pointing and Calling for Signal	Air Section	Air Section Precaution
		
Check and call the signal aspect hare.	You must avoid stop here as it may damage overhead wires.	Stop here and wait if your train cannot proceed further than the approaching air section

Brake target	Station approach sign	500m sign
		
This is a guide to where to start applying the brakes.	Indicates that there is a single line station. (Without signal)	It is located approximately 500m before the sign with the name of a single line station. (Without signal)

<Timing of the calling>
The calling should be completed when the driver passes the sign.

Acknowledgements and Credits

- List of structure data borrowed (in part) The authors of the files under structure/camino folder are as follows.

Folder	producer	Notes	Folder	producer	Notes
bantetsu	Bantetsu		N209	N209	
ec576	ec576		Nakano_Kazusa	Nakano_Kazusa	
Gaku	Gaku		NT	NT/fiv	
gutti	gutti	Without sound data	RON	RON	
saha209	Saha209		Tksoft	Karino Takahiro	
momo	Momotaro		Tomari	Tomari	
initG	initG				

  - Camino (Organiser, Add-on Production, Investigation)
  - Coffee & Sleep (Technical Support, Train Data Production)
  - momotaro (Plugin Production)
- We would like to thank gutti, nihoncha, the former Team yoshie members and everyone who helped us with the structure data.

Oito line study group Organiser: Camino

Contact : camino@yukinohana.net

Enjoy!