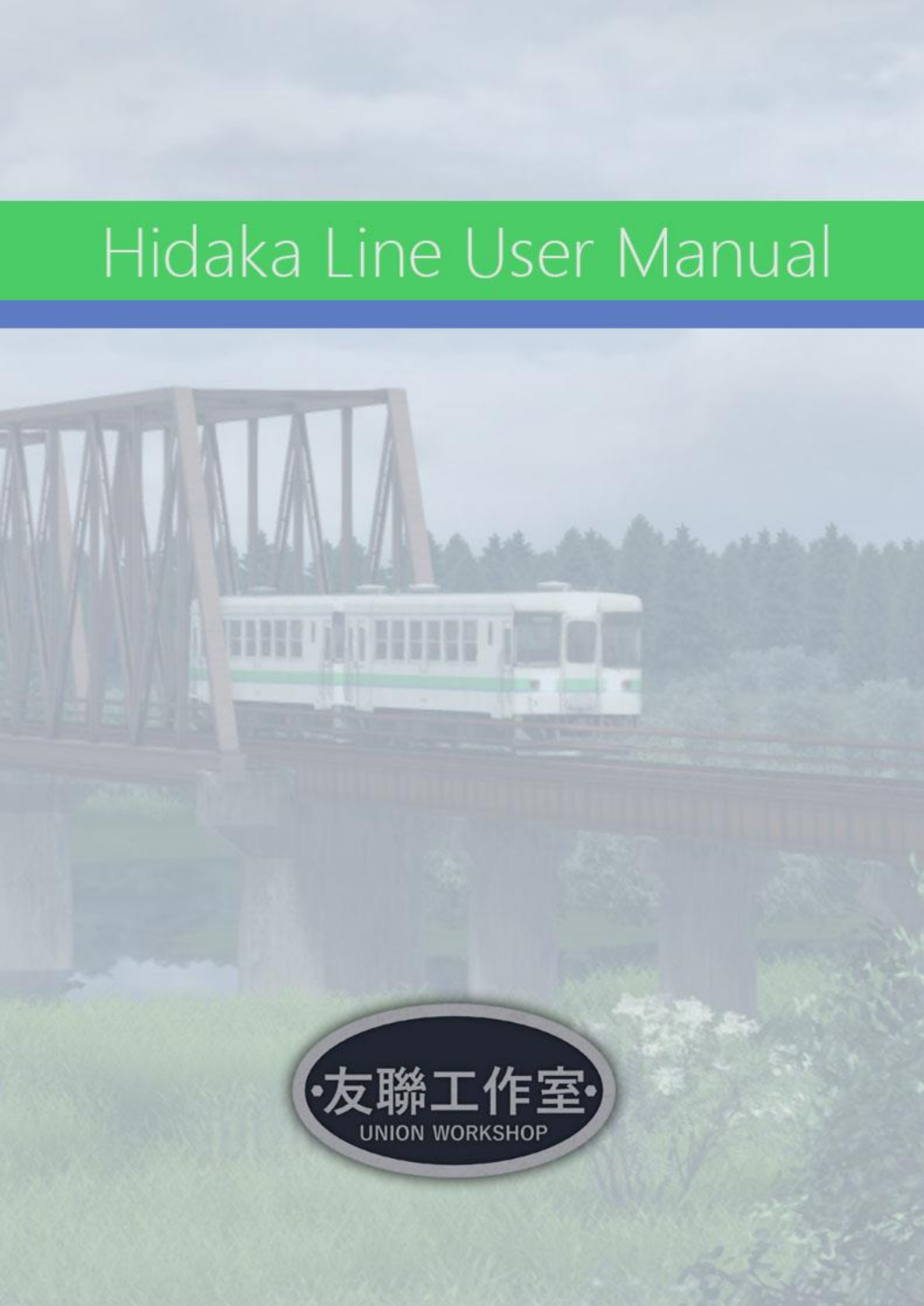
Hidaka Line User Manual



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Contents

1. Route information

1.1 Background information

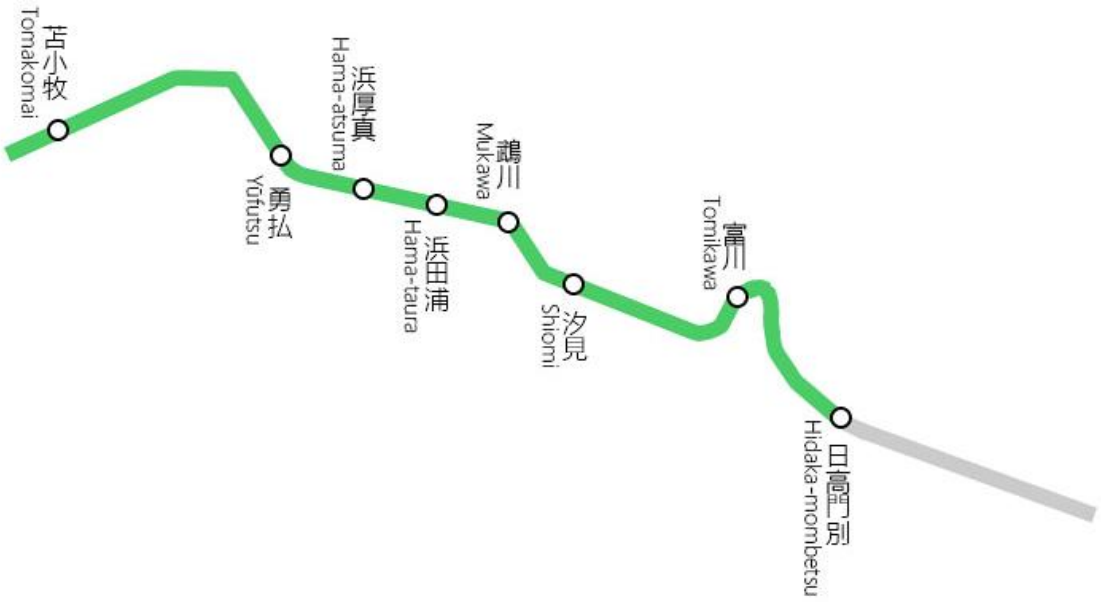
The Route

Hidaka mainline is a railway route link Tomakomai and Samani in Hokkaido. The route compled in 1913 as light railways with a track gauge of 762mm. The route was nationalized on 1 August 1927 and widened to 1,067mm between Tomakomai and Sarufuto in 1929 and between Sarafuto and Shizunai in 1931.

There were several different operation types on this route including Local, Rapid, and Regional services. There was also a temporary tourist train running in May as though service from Chitose Line.

Following storm damage between Atsuga and Okaribe stations on 8 January 2015, rail services have been suspended beyond Mukawa station, with buses providing a substitute service. Further damage was caused to the line by Typhoon on 12th September 2015. As the passenger number drop rapidly, and repair cost too much, railway company consider abandon the route from Mukawa to Samani.

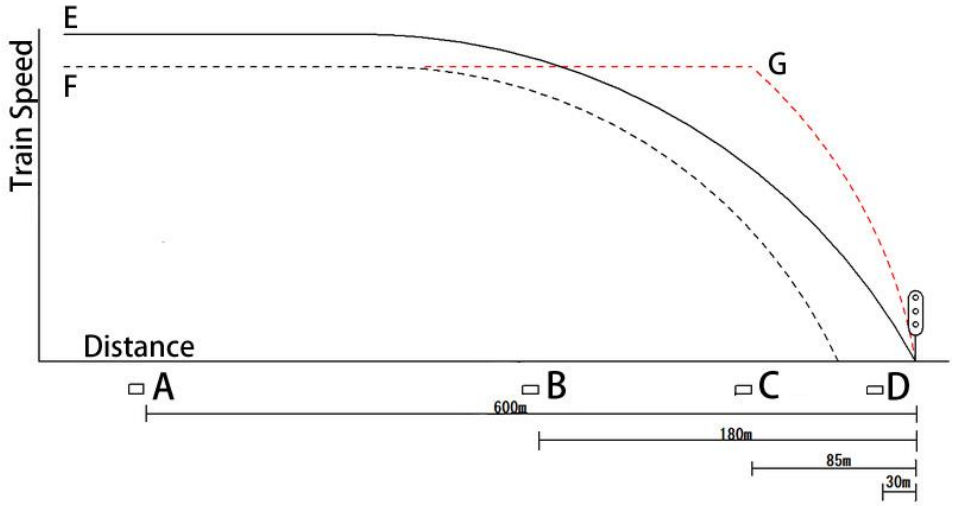
Route Map:



1.2 ATS Safety system

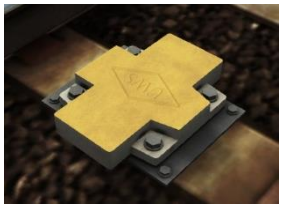
ATS or automatic train stop is a system on a train that automatically stops a train if certain situations occur to prevent accidents. ATS installed on most Japanese trains and routes (apart from Shinkansen), are mostly transponder-based. Here in this DLC, we provide you ATS-P and ATS-S system (depend on train type). On Kiha130, ATS-S system was installed.

ATS is a system using a pattern renewal transponder. ATS-P will generate a speed curve you need follow once passing the first transponder. If your speed is 5 km/h over the speed limit then system will kick-in to slow down the train. Detail patterns can be seen below. While ATS-S function much like UK's AWS system but with more transponder before a home signal.



There are usually 4 transponders installed in front of a home signal. When the train passes transponder **A**, it will get first ATS-P message while **B**, **C** and **D** will renew the message. **E** means the system monitor curve; **F** is the speed curve you should follow; **G** is the system kick-in curve once you fail to react.

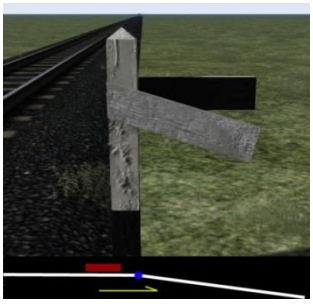
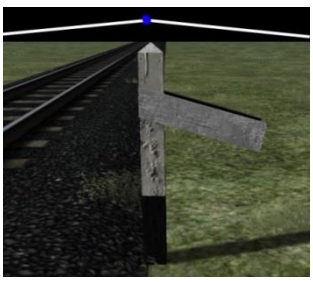
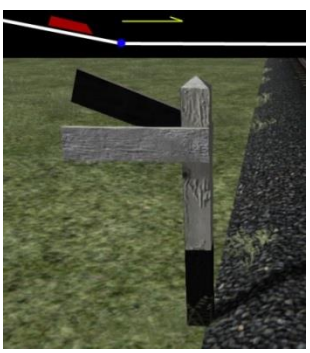
If the home signal is red once you pass **transponder A**, a warning chain sound will remind you there is a red signal just 600m ahead. You need push the **ATS confirm button** quickly, or the train will apply an emergency brake after 5 seconds. Then there will be another caution sound; it will turn off automatically if signal changes to green or yellow once you are passing another transponder. You need apply the brake to slow down the train before the red signal, or system will kick-in to stop the train.

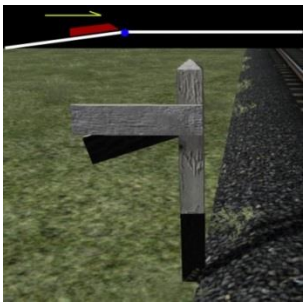
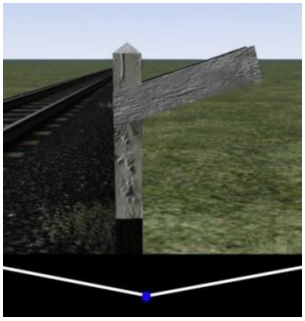
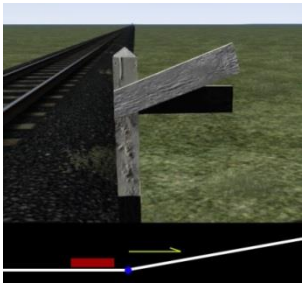


the transponder on the track

1.3 Route signs and train stop position

Route signs

Speed limit signs	
	Normal speed limit sign. Usually using on the Mainline, indicate the speed limit ahead.
	Speed limit of left track. Placed near junction, indicate speed limit of the track goes left
	Speed limit of right track. Placed near junction, indicate speed limit of the track goes right.
Track gradient indicator Red box means the train and yellow arrow means the direction train is going.	
	Track ahead going down slope. Track from level to down slope.
	Track ahead going down slope. Both sides are slope.
	Track ahead going level. Train from downhill to level.

	Track ahead going level. Train from uphill to level.
	Track ahead going up. Both sides are uphill.
	Track ahead going up. Train from level to uphill.
Train stop position signs	
	Stop position for train with 6 cars (EMU/DMU).
	Stop position for train with 4 cars (EMU/DMU).
	Stop position for train with 2 cars (EMU/DMU).
	Absolute stop position. A train should stop no more than this sign if it required to stop at this station.
Other signs	
	Mile post. Read from top to bottom. In left picture means 36Km milepost

2. Kiha 130 DMU

2.1 Basic information

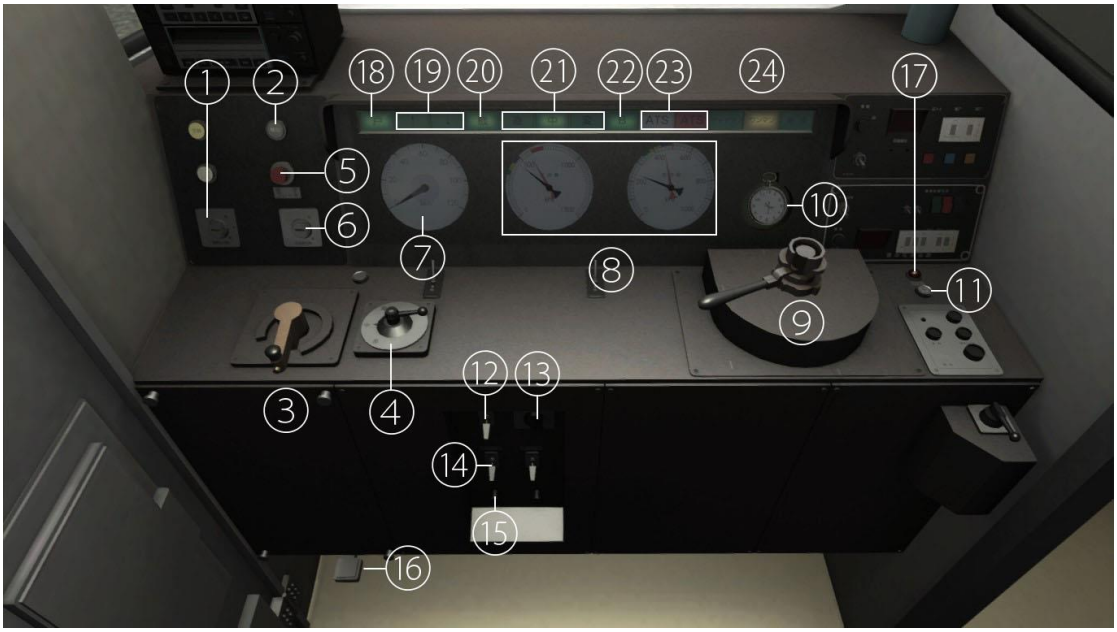
Kiha 130 was designed to replace the aging Kiha 40 series on Hidaka line. 11 cars were built during 1988-1989. One train was withdraw from service due to level crossing accident in 1991 near Yufutsu station.

Due to poor insulation performance and heavy salt corrosion, Kiha 130 end regular service in 2000 and completely retired in 2001. Railway company now using Kiha 40 on Hidaka line.

The train designed for one-man train service thus only one driver can operate the normal service. In Japan, usually there will be another driver in the cab at other end of the train to monitor passenger and operate the door open/close, and do manual announcement if necessary. One-man train not require the additional driver, this will reduce the operation cost but add work load to driver as he also required to check passenger condition and collect fare.

Constructed:	1987-1988
Number built:	11 cars
Number in service:	0 cars
Car length:	15,800 mm
Width:	2,800mm
Maximum speed	120 km/h
Engine:	L6 Diesel engine type DMF13HS
Power output:	250ps (Engine output)
Safety systems:	ATS-S (in this DLC)
Track gauge:	1,067mm

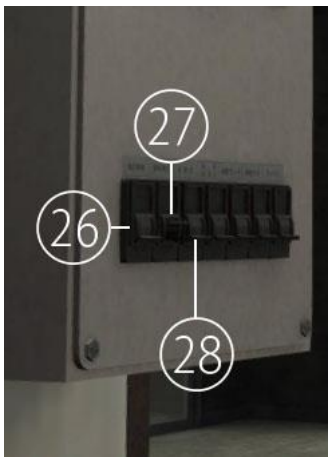
2.2 The cab



Main area

1	Dashboard select	13	Head light
2	Start/stop button	14	Cab/Cabin heater
3	Regulator handle	15	Wiper
4	Gear lever	16	Horn peddle
5	Emergency brake button	17	Emergency brake light
6	Reverser	18	Door state light
7	Speedometer	19	Reverser state light
8	Brake pressure gauge	20	Engine state light
9	Train brake handle	21	Gearbox state light
10	Driver's pocket watch	22	Brake state light
11	ATS Confirm button	23	ATS state light
12	Marker light	24	One-man car sign light

Upper left



26 Cabin lights
27 Cab light
28 Instrument lights

Note: there're some different viewpoints in the cab area, please press left or right arrow key to move around (← or →).

2.3 The Cabin

In this DLC we are offering you a detailed cabin view, you can use your mouse and keyboard arrow key (←and→) to explore the cabin.

Animated cabin fans: As Kiha 130 DMU is a cold land type DMU, air conditioner is not installed on this train, but it has cabin fans. These fans will turn on automatically in summer and off during other seasons.

2.4 Hotkeys

Headlight shift up	H	Headlight shift down	Shift+H
Marker light	Ctrl+H	Reverser	W/S
Regulator handle increase	A	Regulator handle decrease	D
Train brake control increase	Apostrophe	Train brake control decrease	Semi Colon
Emergency brake	Backspace	Horn	Space
Wiper	V	Cab light	L
Cabin light	Ctrl+L	Instrument light	I
ATS Confirm	Q	Cabin heater	M
Handbrake	Slash	Gear shift down	Shift+E
Gear shift up	E	Train Start/Stop	Z

Note: To drive your train, you need first move Dashselect to FRONT position (move up), then move gear lever to L position. When speed reach 29km/h, move gear lever to D position let train continue speed up. You need turn on heater in Spring and Winter, or will cause scenario fail.

3. Scenarios

1. First day on Hidaka line
   Start location: Tomakomai Depot
   Terminal station: Yufutsu
   Duration: 20 minutes
   Tutorial scenario

2. The Spring of The Northland
   Start location: Tomakomai
   Terminal station: Hidaka-Mombetsu
   Duration: 55 minutes

3. Mr. Driver, take her to sea.
   Start location: Hidaka-Mombetsu
   Terminal station: Tomakomai
   Duration: 52 minutes

4. Expect the unexpected.
   Start location: Tomakomai depot
   Terminal station: Mukawa depot
   Duration: 35 minutes

5. Winter storm
   Start location: Hidaka-Mombetsu
   Terminal station: Tomakomai depot
   Duration: 52 minutes

6. Shuttle Train
   Start location: Tomakomai
   Terminal station: Tomakomai
   Duration: 60 minutes

7. Time to say goodbye
   Start location: Mukawa
   Terminal position: Tomakomai depot
   Duration: 35 minutes

Quick Drive

This DLC also features Quick Drive scenarios; you can customize your own journey by clicking on the Quick Drive menu.

Appendix：Scenario Timetable

Scenario02	Arr.	Dep.	Scenario03	Arr.	Dep.
Tomakomai	/	0742	Hidaka-Mombetsu	/	0837
Yufutsu	0755'24	0756	Tomikawa	0844	0844'35
Hama-Atsuma	0804'35	0805	Shiomi	0853	0853'35
Hama-Taura	0809	0809'35	Mukawa	0857	0857'35
Mukawa	0813'40	0814'15	Hama-Taura	0901'30	0902
Shiomi	0818'40	0819'15	Hama-Atsuma	0906	0906'35
Tomikawa	0827'45	0828'20	Yufutsu	0915	0916
Hidaka-Mombetsu	0835'20	/	Tomakomai	0927	/

Scenario05	Arr.	Dep.	Sceenario06	Arr.	Dep.
Hidaka-Mombetsu	/	2035	Tomakomai	/	1223
Tomikawa	2041'40	2042'15	Yufutsu	1234	1234'35
Shiomi	↓	↓	Hama-Atsuma	1243	1243'35
Mukawa	2054'50	2055'25	Hama-Taura	1247	1247'35
Hama-Taura	↓	↓	Mukawa	1252'30	1255'05
Hama-Atsuma	↓	↓	Hama-Taura	1258'30	1259'05
Yufutsu	2109	2110	Hama-Atsuma	1302'30	1303'05
Tomakomai	2120	2122	Yufutsu	1311'10	1312'10
			Tomakomai	1322'30	/

Recommend timetable for scenario creators:

Section	Duration
Tomakomai	11'23
Yufutsu	
Yufutsu	8'35
Hama-Atsuma	
Hama-Atsuma	4
Hama-Taura	
Hama-Taura	4'11
Mukawa	
Mukawa	4'30
Shiomi	
Shiomi	8'30
Tomikawa	
Tomikawa	7
Hidaka-Mombetsu	

Credits

Hidaka Main Line route & Kiha 130 DMU

Staff

Model & Textures	*T9Express CNAurora DoubleRainbow*
Scripts	*T9Express CNAurora*
Sound Effects	*T9Express*

Developer	*Union Workshop*
Publisher	*Dovetail Games*
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