

**OMSI 2** Add-on

# Masterbus Gen 3 Pack



**Manual**

Developed by: Masterswitch Studios  
Manual: Masterswitch Studios, Aerosoft



# **OMSI 2 Add-on Masterbus Gen 3 Pack**

## **Manual**

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Add-on for

**OMSI 2 – The Omnibus Simulator**



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# Starting Off

## Words from the Developers

Thank you for purchasing the Masterbus Gen 3 Pack DLC for OMSI 2! This pack is part of a long list of packs we plan to produce within the coming years. We started out doing this as a hobby and a small discord chat, however, after a lot of suggestions, we decided to go Payware with our projects, turning them into more of a full-time job. Without you, none of this would be possible.

We've created the Masterbus Gen 3 Pack to high detail and accuracy, as well as bringing a large selection of setvars to customise the buses to your needs! This project was initially started by BlueOrange (founder) in December of 2017. It was first announced in January 2018 as a project to do a single, low height variation for the Oxford Map for OMSI 2. After a while of development, development switched to creating a pack of buses that are full height, and not just the Masterdeck, but also the B5TL. Development kept progressing at a fast pace, and with the help of various people and companies, we're bringing the whole 9 yards. Masterbus Masterdeck (OM934la), B5TL (D5K @ 240HP), and the B5LH (D5K @ 240HP). Future updates will bring a new version of the Masterbus containing the OM936la engine, as well as many other versions of the Gen 3 buses.

There are countless people who have helped with the project, and while we try to name all of them, we may have missed some people out. If you have been missed out, send us a message on the Facebook page!

## About this Manual

This manual is limited to the installation of and introduction to this add-on. It is a supplement to the manual for the base game "OMSI 2 - The Omnibus Simulator".

Please read the manual for the main OMSI game for descriptions and

instructions about basic functions and configurations. If clarification for the add-on is required, explicit references to the OMSI manual are provided in this manual.

## System Requirements

In order for the add-on Masterbus Gen 3 Pack to run as smoothly as possible, you need the following:

- OMSI 2 – The Omnibus Simulator min. 2.2.032
- Operating system: Microsoft Windows 7 / 8 / 10
- Processor: Dual Core CPU with 3 GHz
- Memory: 4 GB RAM
- Graphics card: 2 GB with DirectX 9.0 (or higher)
- Free disk space: XX GB
- Internet connection and Steam user account required

## Installation

You have to be logged in with administrator rights before you can start the installation of OMSI 2 add-on Masterbus Gen 3 Pack.

To start the installation, please open Steam in your library view. Click the button „Add a game...” in the lower left-hand corner and then click on „Activate a Product on Steam...”. A new window opens. Follow the steps and enter the product key you purchased when prompted.

## Removal

In order to fully remove OMSI 2 Add-on Masterbus Gen 3 Pack right click the "OMSI 2" entry in your Steam library, select "Properties" and open the "DLC" tab. Here, remove the checkmark next to the "OMSI 2 Add-on Masterbus Gen 3 Pack" entry.



# General Information

## Addon Description

The Masterbus Gen 3 Pack – Coming with 3 different more chassis variants (and one more in the future!), is a highly versatile City bus used throughout the UK and has started to be used in other countries such as Hong Kong, Chile, and Mexico. Included in this pack (v1.0) is the Integral Masterdeck chassis (OM934la with Voith D854.6 or ZF 6AP1000B transmission), B5TL chassis (D5K @ 240HP with ZF Ecolife 6AP1003 B transmission), and B5LH chassis (D5K @ 240HP with AT2412E I-Shift Transmission). A future update will bring the Integral Masterdeck chassis (OM936la with Voith D854.6 or ZF 6AP1000B transmission).

This addon (v1.0) contains 6 base variations (2 of each) – 10.5m and 11.5m length. Each of these can be highly customised through the setvar system, with more to arrive with future updates. These include, but are not limited to; Assault Shield, glass staircase, extruded wheel arches, different seating types, internal displays systems, adverts, and wheel trims.

**Masterbus Masterdeck:** Available in both 10.5m and 11.5m lengths (v1.0), and announced in Q4 2014, the Masterdeck has become a cheap double deck bus, which has proved very popular with many operators in the UK and some other countries as well. The Masterdeck uses the OM934la engine, both 155KW and 170KW versions. The official spec-sheet states that the bus is available in both Voith and ZF transmission, however as of 09-07-2019, no known versions of the bus have a ZF transmission. It is speculated an operator based in Yorkshire is due to get some with ZF, however.

**Masterbus Gen 3 – B5TL:** Available since the release of the Masterdeck, the B5TL is the best choice for a low emission, and reliable diesel chassis. Unlike the Masterdeck, the B5TL is a chassis from an external supplier. The Gen 3 B5TL is available in 2 lengths, 10.5m and 11.5m. This chassis only has one gearbox option, ZF Ecolife 6AP1003B. This variation has an adjustable speed limiter (setvar),

**Masterbus Gen 3 – B5LH:** Available alongside the B5TL, the B5LH is a lower-emissions and more environmentally friendly approach to the modern city bus. This chassis is also available in 10.5m and 11.5m, however only one operator (as of 09-07-2019) – Lothian – has the 11.5m variant. This chassis features an electric-hybrid drivetrain, with an electric-only mode running off the traction motors which are powered by the batteries.

## Features

- High customizability - Setvar system allows for each repaint to be unique, with variations such as the glass staircase, extruded wheel arches, ticket machines, and more!
- High detail and accuracy - Using many man-hours of research, this addon has gone through many iterations to bring you a life-like experience
- Realistic operation of each variation
- Custom displays based on the Hanover displays system in the UK
- Fully functional ticketer ticket machine - approved by Ticketer!
- Realistic sounds recorded from various real-life counterparts
- Random and dynamic events, like rubbish spawns, and a wheelchair assistance alarm
- Complete intricate systems, such as DPF regen (A feature of all Euro 6 buses)



# Operation

## Cockpit – Masterdeck



1. Engine Start Switch - Press and hold the start button until engine starts. The master switch + ignition must be turned on and the control button of the gearbox must be in neutral with the handbrake on.
2. Ignition Switch - This switch is used to turn on the ignition once the main switch has been switched on. If the ignition switch is turned off while the engine is running, the engine will stop. The ignition must not be switched off when in motion.
3. Bus Raise / lower switch:
  - Upper Position (Ferry Lift): This switch position raises the vehicle body and increases ground clearance. It lowers again once more than 10MPH has been reached.
  - Center Position: This switch position will return the vehicle to its regular ride height. This should be selected when the raise / squat functions are not required.
  - Lower Position (Squat): This switch position will lower the vehicle body, reducing ground clearance.

4. Exterior Light Switch:
  - Top (0): Lights are turned off, daytime running lights are active.
  - Center (I): Side marker lights and width indicator lights are turned on.
  - Bottom (II): Headlights, width indicator lights, and side marker lights are turned on. Daytime running deactivated.
5. Rear Fog light switch - This switch turns on the rear fog lights. Headlights must also be turned on to function.
6. Kneeling Switch - When pressed the boarding step lowers to ~250mm. The switch has 3 positions, and returns to the center when released. When the lower level of the switch is pressed and held, the boarding step will start to drop. It will stop descending once the vehicle has reached the programmed height. Pushing it up returns the vehicle to standard ride height.
7. Reverse Bleeper Override - Pressing this switch overrides the reversing bleeper for 3 minutes. Press again to re-enable reverse bleeper.
8. Hazard Light Switch - Pressing this switch will activate the hazard lights. The switch will flash to warn the driver the hazards are activated.
9. Gear Selector Switches - The automatic gearbox is electronically operated by a set of switches. This contains the following 3 switches:
  - Position D - The gearbox automatically selects the correct gear depending on various parameters. Might creep forward when stationary with no handbrake applied.
  - Position N - Only select neutral when the vehicle is stationary and the handbrake is applied.
  - Position R - The reverse gear may only be selected when the vehicle is stationary and the engine is idle. The brake pedal must be depressed before changing position to Reverse from neutral. Never put the gearbox in reverse when driving forward.

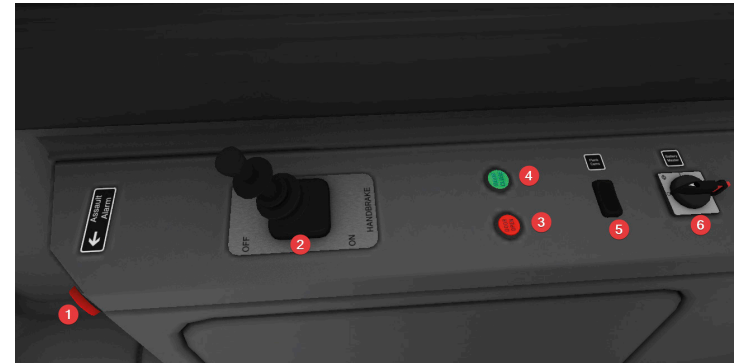


## Overhead Switches – Masterdeck



1. Light Master Switch - This controls operation of the interior saloon lights. Saloon lighting can be controlled with switches 2, 3, and 4.
2. Lower Deck Saloon Lights - Toggles saloon lights in lower deck saloon, only if the light master is turned on.
3. Upper Deck Saloon Lights - Toggles saloon lights in lower deck saloon, only if the light master is turned on.
4. Cab Lights - Toggles lighting in the cab.
5. Drivers Fan Switch - Toggles power to the drivers fan. Fan speed is controlled by a switch on the fan.
6. Battery Protection System Reset Switch - Resets the battery protection function. By activating this switch, the engine can be started within 90 seconds. If not started within 90 seconds, the protection system will become effective.

## Cockpit – Side Panel (Shared)



1. Assault Alarm - Toggles the Assault Alarm. Plays a loud siren-like sound
2. Handbrake - Handbrake for the bus. It is essential to make sure it is on before leaving the vehicle.
3. Door Open button - Opens the front doors
4. Door Close button - Closes the front doors
5. Flank Cams Switch (no operation) - Switches cameras shown on CCTV screen
6. Battery Master Switch - Toggles the battery master. This is the first switch to be pressed when starting the vehicle.



## Cockpit – B5 Euro 6



1. Gear Selector Switches - The automatic gearbox is electronically operated by a set of switches. This contains the following 3 switches:
  - Position D - The gearbox automatically selects the correct gear depending on various parameters. Might creep forward when stationary with no handbrake applied.
  - Position N - Only select neutral when the vehicle is stationary and the handbrake is applied.
  - Position R - The reverse gear may only be selected when the vehicle is stationary and the engine is idle. The brake pedal must be depressed before changing position to Reverse from neutral. Never put the gearbox in reverse when driving forward.
2. Kneeling Switch - When pressed the boarding step lowers to ~250mm. The switch has 3 positions, and returns to the center when released. When the lower level of the switch is pressed and held, the boarding step will start to drop. It will stop descending once the vehicle has reached the programmed height. Pushing it up returns the vehicle to standard ride height.

3. Bus Raise / lower switch:
  - Upper Position (Ferry Lift): This switch position raises the vehicle body and increases ground clearance. It lowers again once more than 10MPH has been reached.
  - Center Position: This switch position will return the vehicle to its regular ride height. This should be selected when the raise / squat functions are not required.
  - Lower Position (Squat): This switch position will lower the vehicle body, reducing ground clearance.
4. Hazard Light Switch - Pressing this switch will activate the hazard lights. The switch will flash to warn the driver the hazards are activated.
5. Exterior Light Switch - Manages the exterior lights of the vehicle.
  - Position 0 - Lighting switched off or automatic dipped lights
  - Position I - Parking Lights
  - Position II - Main and Dipped beam
  - Position III - Extra headlamps (optional)





## Overhead Switches – B5 Euro 6



1. Light Master Switch - This controls operation of the interior saloon lights. Saloon lighting can be controlled with switches 2, 3, and 4.
2. Lower Deck Saloon Lights - Toggles saloon lights in lower deck saloon, only if the light master is turned on.
3. Upper Deck Saloon Lights - Toggles saloon lights in lower deck saloon, only if the light master is turned on.
4. Cab Lights - Toggles lighting in the cab.
5. Drivers Fan Switch - Toggles power to the drivers fan. Fan speed is controlled by a switch on the fan.
6. Reverse Bleeper Override - Pressing this switch overrides the reversing bleeper for 3 minutes. Press again to re-enable reverse bleeper.

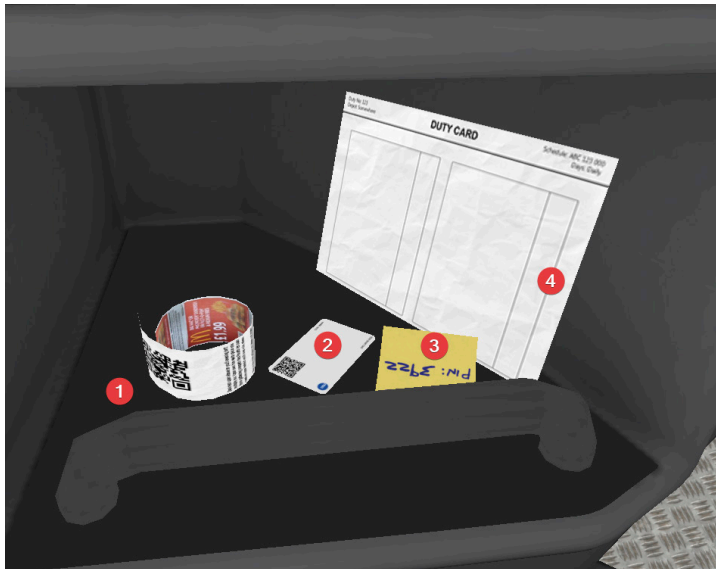
## Climate Controls – All variants



1. Blower Speed Selector - Controls the speed of the blower unit. Turn clockwise to increase the blower speed and anticlockwise to reduce blower speed.
2. Cab Temperature Selector - Controls the temperature for the cab area. Turn clockwise for warmer air and turn anticlockwise for cooler air.
3. Blower Mode Selector - Controls where the blowers are directed to.
  - Position 0 - Drivers Cab Area
  - Position 1 - Drivers Cab Area + Front windscreen
  - Position 2 - Front Windscreen
4. Saloon Temperature Adjust - These buttons adjust the desired temperature in the saloon area.
5. Windscreen Air Flow Override - Pressing this switch directs air flow to the windscreen overriding air flow selector.
6. Air Conditioning Switch - Pressing this switch turns on the drivers air conditioning



## Drivers Compartment



1. Duty Totals Ticket (random spawn) - Use this at the Duty Totals scan prompt screen on ticketer. Will function to pre-populate the duty totals (v1.1+)
2. Driver's Login Pass (Ticketer) - Use this to auto-input the driver's Login ID for the ticketer.
3. Login information post-it - Hides/shows the login info post-it below the Ticketer screen
4. Schedule - Shows/Hides the schedule. Puts the schedule on the steering wheel.

## Almex-style Ticket Machine



Red: Ticket selection (10 tickets max)

Blue: Print selected ticket

This ticket machine is a very basic machine, if you do not like the complexity of the Ticketer. It has no advanced functionality aside from printing tickets. That is it.



## Ticketer Ticket Machine



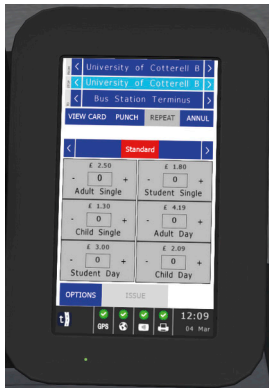
Red: Login/Driver ID

Green: Login PIN

Blue: Main Screen

This ticket machine contains advanced functionality aside basic ticket selling, including a full login system, with more to be added in the future.

The UI for the ticketer is very intuitive, with big and bold buttons and clear labels.



The login process is simple. Enter the Login/DriverID into the first number pad which comes up. The next screen will ask for duty totals. If there is a long coiled ticket in the drivers compartment, click it, and a long bleep will play. If not, click "Skip". Then, another numpad will come up. Enter the Login PIN, and press enter. Finally, the ticket-selling screen is shown. Select a ticket, and click the large green button to print.

## Destination Controller



1. Route - Use this to set the route number you would like the exterior sign to show, e.g. 35 and Enter (#3).
2. Destination (Ziel) - Use this to set the "Ziel" code is in the HOF File, e.g. for BotW, "1" is Totnes Railway Station, pressing 1 and Enter (#3) will set the Totnes Destination
3. Enter - Press to confirm changes.
4. The text in the bottom left of the screen shows you the Route Number (#1) you put in earlier.
5. The text in the bottom right is the Destination Number (#1) you put in earlier.

## Quick Start Guide / Few notes

To start the bus, you can press the E key 3 times. This gets everything running as long as the vehicle is in neutral.

E - Proceeds through startup stages. Master, Electrics, Ignition.

M - Opposite of what E does. Goes back down.

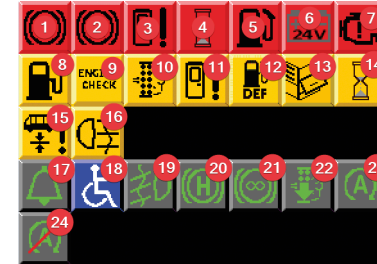
This bus also requires the handbrake to be on before you can operate the doors.



## Dashboard Icons – B5(TL/LH)

Icon	Description
	Left/Right Indicator - Shows which way the indicator is being used. Both flash when hazards are used.
	Front High Beams - Shows the status of the high beams
	Rear Fog - Shows the status of the rear fog lights.
	Driver's Seatbelt Warning - Shows when the driver has no seatbelt equipped. Unused in Citybuses.
	Engine Check Light - Shows when the engine should be checked or is due a service.
	Parking Brake Status - Shows when the parking brake is engaged / pressure is too low.
	Stop Bell Status - Shows when a passenger has requested the next stop.
	STOP Light - Shows when a serious fault has occurred. Pull over as soon as it is safe to do so.
	Heated Mirror Status - Shows when heated mirrors are enabled.
	Engine Warning Light - Shows when there is a minor fault with the engine. Continue driving, but get it looked at when it is convenient.
	Battery Fault - Shows when there is a fault with the vehicle battery.
	ABS Light - Shows when ABS is enabled.
	Pressure Warning Light - Shows when vehicle is low on pressure. Wait for it to disappear before moving.
	DPF / Exhaust Temperature Lights - Shows when DPF regen is running. Normal, continue to drive as usual.
	Kneeling Status - Shows when the vehicle is kneeling.

## Dashboard Icons – Masterbus



Red Icon: Panic, something is very wrong.

Yellow Icon: Don't panic, it's just a warning.

Green Icon: Advisory, the bus is telling you something, don't be alarmed.

1. This icon relates to the air pressure, or the lack of it, rev the engine more to build this.
2. See #1.
3. This relates to the door alarm playing, you're driving with the doors open, you should really consider waiting the extra second or 2...
4. This icon is the shutdown timer, you have been idling for 4 minutes, rev the engine, or the engine will turn off within 30 seconds.
5. This icon relates to fuel, you're low on it, you should go find a petrol station!
6. This icon relates to the battery, this will show when you're using the battery and the engine is not on.
7. This icon relates to the engine, it's fine, ignore it.
8. This icon relates to fuel, you're running low on it, find a petrol station!
9. This icon relates to the engine, it says check it but just carry on



as normal, it's fine.

10. This icon relates to DPF, it's in progress, continue to drive as normal.
11. This icon relates to the door, see #3.
12. This icon relates to DEF, you're low on it, but it's fine. Drive as normal.
13. This icon relates to the engine bay door. It's open, you need to close it.
14. This icon relates to the idle shutdown, see #4.
15. This icon relates to ride height, this icon will show when ferry lift is active, un-ferry the vehicle and it will go away.
16. This icon relates to the rear fog lights, they're active, click the fog light button to turn them off.
17. This icon relates to the passenger cabin, someone wants to get off at the next stop.
18. See #17.
19. This icon relates to the front fog lights being active.
20. This icon relates to the retarder, this will show when you're braking the vehicle and the retarder is active.
21. See #20.
22. This icon relates to DPF. See #10.
23. This icon relates to Stop Start, this shows then SS has NOT been inhibited and the vehicle is stopped and the engine is off.
24. This icon relates to Stop Start, except it has been inhibited. This happens when the air pressure is low, DPF is on, or no one has pressed the stop bell.

## Appendix: Setvars & Customizability

This bus includes many setvars for repainters to use within their repaints, giving them that extra unique feel. Not all setvars are shown in the examples, but the full list of setvars is given below.



\* Requires template changes (advanced; see PSD)

\*\* Branding Patch required (see Masterswitch website)

Setvar Name	Value
vis_chrome_treebar	0: Black / Painted treebar 1: Chrome treebar
vis_v2wheelarchSeats	0: Civic V3 Seats on wheelarches 1: Civic V3 Seats with V2 seats on wheelarches
vis_wheeltrim	0: No wheel trims 1: Ring wheel trims 2: Full cover wheel trims (circle) 3: Full cover wheel trims (line) 4: Full cover wheel trims (V-branded)**
vis_wheelarches*	0: Standard, flat wheel arches 1: Extruded wheel arches



Setvar Name	Value
vis_nobadges**	0: V-branded badges 1: No V-branded badges
vis_assaultscreen	0: No Assault Screen 1: Assault Screen (full cab)
vis_advertOnABus	0: No advert boards 1: Side advert boards
vis_rimtype	0: Standard rims 1: Chrome Alcoa-style rims
vis_sunshield	0: No blue sunstrip on front wind-screens 1: Blue sunstrips on front windscreens
vis_MSID	0: No MSID (Master Switch Information Display) 1: MSID System screens
vis_disableSmallStopLight	0: Small LED "Stopping" light on lower deck 1: no small LED "Stopping" light
var_ticketMachineType	0: Uses the default Ticketer ticket machine 1: Uses a basic Almex-style ticket machine
var_glassstaircase*	0: No glass staircase 1: Glass staircase
var_hasLazeriniSeats*	0: Uses standard Civic seating 1: Uses Lazzerini Practico High-back seating
vis_hasWhiteDisplays	0: Standard, Orange exterior displays 1: Modern, White exterior displays
vis_hasSmallRearDisplay	0: Full-size rear display 1: Small, number-only rear display
vis_hasSmallSideDisplay	0: Larger side display 1: Small side display
vis_hasOffsideDisplay (Glass staircase only)	0: No offside display 1: Small offside display at bottom of Glass Staircase

## Credits

### Development Team

**BlueOrange** (Project Lead) - Modelling, texturing, ingame configuration, scripting

**Badger** - Anything and everything sound related, organising depot visits

**Reverseldle** - Testing, various ideas, Almex-based Ticket machine, various other models

**Whiskey.Stuffs** - Various repaints, Volvo dashboard icons, default interior + repaints.

**FirstEnviro** - Scripting for various technical systems such as DPF regen, destination controller, and more.

**Road-hog123** - Hybrid Drivetrains (future versions)

### Main Credits

**Oxford Bus Company** - Allowing multiple depot visits to gather reference imagery and sounds

**Ticketer** - Allowing the use of their logos for a more authentic ticketer experience.

**Chrizzly92/Christian Rolle** - Various help throughout the project. Giving huge pointers on making this project the best it can be!

**Naphthalene the bus tuner in OMSI** - Allowing the use of their Voith DIWA.6 Scripts, ZF Ecolife scripts

**Whistlehead** - Civic seating base (v2s) - allowed editing and redistribution

**Repaints by Josh** - Recreating the Wrightbus demo repaints

**Lowlander21** - Various help, few misc models, Mobitec displays fonts

**krtz07** - Allowed the use and editing of his iShift scripts for the 9900

**ross4122** - iShift script editing, creation of various Hanover displays fonts

**ReflectivShadow** - OM934 engine constfile

**ibgtvfd** - Help with Volvo-related accuracies, needle glow texture

[Cal](#) - Organising Uno depot visit, providing misc ref imagery

**Matty** - Providing B5LH reference imagery

**Konnor James** - Help with Ticketer, making it as realistic as possible. Real world bus driver!

**Joachim Losey** - Help with Ticketer, making it as realistic as possible. Real world bus driver!

**Jem** - Narrow HANICS fonts, Volvo dashboard numbers fonts

**Olleco** - New Ventura doors

**Tom9962** - Various reference imagery

[DJ98](#) - Cover art

## Beta testers – Past and Present

d4rkf4ith, Sylar\_08, Repaints by Josh, 0118999, btw, Eamons85, Fulleylove, PH6NTOM, Ross, SamNeedham123, misterdotjay, W21D, Tom9962, Road-hog123, Growl\_3D, Citaro2013, chrisrose1993, EvadRave, EmperorGreg, Rhys, Onionwolf, and Sambob\_12

## Patreon Supporters – Past and Present

Aidan Walter, Andy Gaffney, benhxrris, Callum Connor, Danny Brooks, Elliot Kinkead, Jack Yeoman, Jacob Wilding, Jem, JiaYao Ou, John Gittos, Jordan Joyce, Kieran Wilkins, Louis Renham, Michael Lowe, Orson Godfrey, Repaints By Josh, Sam Needham





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