AEROSOFT®

OMSI 2 Add-on

Standardbus II

Manual

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MAN Standardbus II

Manual

Add-on for

OMSI 2 - Der Omnibussimulator

Content

Starting off

Words From the eveloper

Thank you for purchasing the „MAN Standardbus II“ add-on! Over 3 years of work went into this project in order to achieve the greatest possible degree of realism and scope. Even though the vehicles of the Standard II generation are only rarely seen on the roads nowadays, I was able to capture them digitally and make them available to anyone who is interested.

A big thank you goes to the OMSI community - still very active after more than a decade - as well as to all the people and companies who have always been supporting me with material, a vital opinion or their valuable work.

In addition to that, I would like to give special thanks to the following people for their commitment and/or assistance - without you the project would not have been possible in this quality and scope!

- Nahverkehrsfreunde Dessau e.V. ,Heinrich Reisen, Niklas Grigo and rmpll for providing the vehicle documentation opportunity
- Perotinus, who took care of the realistic vehicle sound design
- DerErzbusfahrer, who was always able to help with technical questions due to his experience, expertise and equipment

I would also like to take this opportunity to thank all beta testers for their quality assurance:

Lazarus | iStanley | Meerrettichmeister | Perotinus | PingPong | Cao Son Ta

...and of course a thank you goes to all other people and companies who have supported me in the realization of the project and are not specifically listed here!

I hope that you will enjoy driving the buses and that this extinct generation of vehicles will continue to flicker across your screen, at least on your PC at home.

Introduction

In this add-on, 3 typical buses from the manufacturer „MAN" were developed. These include the MAN SL202 solo bus, the MAN SG2x2 articulated bus and the MAN SÜ242 intercity solo bus. First introduced in 1984, the above vehicles were produced in series until 1993 (MAN SÜ until 1998). The vehicles follow the standard for city and intercity buses set by the „Association of Public Transport Companies" (VÖV). The vehicle was mainly manufactured in Salzgitter, Germany. For customers who wanted to continue using high-floor buses, the Turkish manufacturer MANAS offered a similar vehicle model until the turn of the millennium.
In order to implement the widest possible range of equipment, the vehicles are available in various interior and seating configurations. In addition, the vehicles can each be customized with over 20 so-called „CTI variables" (setvars). A detailed list of the options can be found in the appendix.

About This Manual

This manual is limited purely to the description and explanation of the „MAN Standardbus II" add-on and is intended as a supplement to the manual for the main game „OMSI 2 - The Omnibus Simulator".
Please read the basic functional description and instructions for operating and configuring the OMSI simulation in its manual. If necessary for clarity, we use explicit references to the OMSI manual in this manual in order to provide you with the best possible instructions.

Systemanforderungen

Um das Add-on „MAN Standardbus II“ möglichst störungsfrei spielen zu können, benötigen Sie:

- OMSI 2 – The Omnibus Simulator min. 2.2.032
- Operating system: Microsoft Windows 7 / 8 / 10
- Processor: Dual Core CPU with 2.8 GHz
- Memory: 4 GB RAM
- Graphics card: 1 GB with DirectX 9.0 (or higher), 2 GB recommended
- Free disk space: 1.5 GB
- Internet connection and Steam user account required. You need to be 13 years or older to create a Steam user account. Please note that you need to have the main game “OMSI 2– The Omnibus Simulator” installed to use this add-on! For thebest experience, make sure to activate texture filtering andanti-aliasing in the graphics settings.

Vehicle Configuration and Overview

Technical Data

MAN SG 292

Length:	17.400 mm
Width:	2.500 mm
Height:	ca. 3.060 mm
Engine:	MAN D2866 (T)UH
Gearbox:	ZF Ecomat 5HP-590 automatic
Top speed:	ca. 80-85 km/h
Empty weight:	14.700 kg
Total weight:	28.000 kg

MAN SL 202

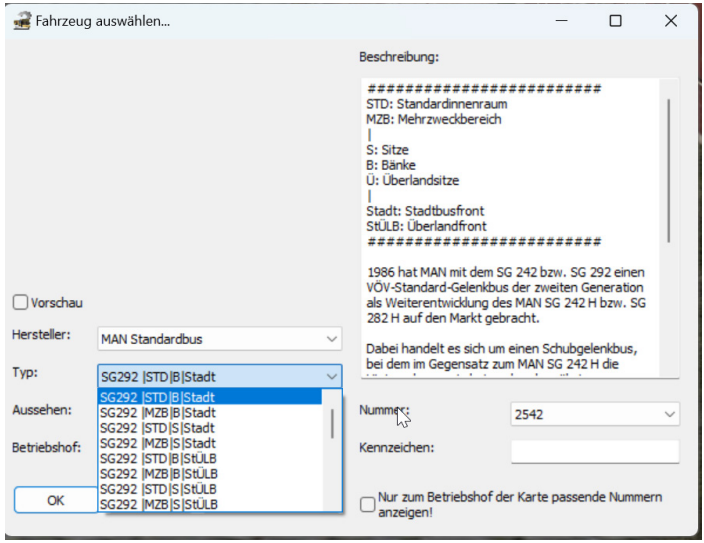
Length:	11.525 mm
Width:	2.500 mm
Height:	ca. 3.060 mm
Engine:	MAN D2566/D2866 UH
Gearbox:	ZF Ecomat 5HP-500 automatic ZF 6-Speed manual gearbox
Top speed:	ca. 80-85 km/h
Empty weight:	9.800 kg
Total weight:	17.600 kg

MAN SÜ 242

Length:	11.890 mm
Width:	2.500 mm
Height:	ca. 3.060mm
Engine:	MAN D2866 (T)UH
Gearbox:	ZF Ecomat 5HP-500 automatic ZF 6-Speed manual gearbox
Top speed:	85 km/h
Empty weight:	11000 kg
Total weight:	17.600 kg

Vehicle Configuration

The modularity of the vehicles results in different configurations, which will be explained in detail below. All vehicles are grouped under the designation „MAN Standardbus“ in the vehicle selection menu.



For technical reasons, the vehicles were divided into different front, interior and seat models and their combinations.

The designation of the vehicles consists of the following 4 parts:

Vehicle Name	Interior Type	Seat Model	Front Mask Type
MAN SG 292 **MAN SL 202** **MAN SÜ 242**	Standard (STD) Multi-purpose area (MZB)	Seats (S) Benches (B) Intercity-seats (Ü)	Stadt (citybus) StÜLB (standard intercity bus)

The **MAN SL** and **MAN SG** vehicles are each available with two interior types, 2 seat models and 2 front types. In the **MAN SÜ242**, the standard interior type has been replaced by an additional seat model. These possible combinations result in a total of **8 MAN SG292** vehicles, **8 SL202 vehicles** and **6 SÜ242 vehicles**.

Vehicle Front Mask Style

The vehicles could be ordered with two different front masks in order to adapt the vehicles to their area of use. The front mask of the standard intercity bus (StÜLB II) offers better visibility due to the larger window, while the front mask of the standard bus (VÖV II) offers more space for a large and clearly legible destination sign. The main differences can be found in the following table:

Frontmask Type "Citybus"	Frontmask Type "Intercity-bus"
	
• big destination display • smaller, two-part windscreen • standing windscreen wipers • additional interior mirror for a better passenger cabin overview	• small destination display • bigger, one-piece windscreen • recumbent windscreen wipers

Interior Variants

The vehicles could be ordered with different interior configurations in order to optimally adapt the vehicles to their area of use. Basically, these differences can be summarized in two categories: maximum number of seats and maximum number of standing places. The multi-purpose area of a vehicle enables the transportation of bulky goods or wheelchairs at the expense of available seats for passengers. For this add-on, I have opted for the following two options:

Interior Type „Standard“	Interior Type „Multi-purpose area“
	
• maximal amount of available seats • maximal amount of travel comfort	• less avaible seats • availble space can be used for bulky goods or wheelchairs • more standing places

Seating Variants

The vehicles could be ordered with different seat configurations in order to optimally adapt the vehicles to their area of use. For this add-on, I have opted for the following two options:

Standard Seats	Bench Seats
	

Aditionally, a special seat was implemented for use in the MAN SÜ242:

Intercity Seats

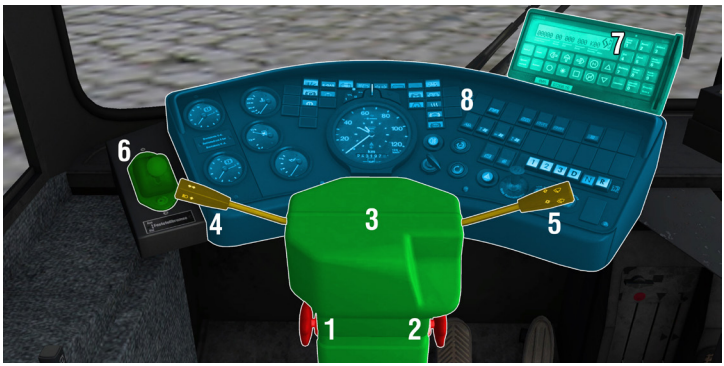

The vehicle front mask, the interior variants and the seats can all be combined.

Driver Cabin

This section describes the normal operation of the buses. The VÖV dashboard is standardized and is used in many other vehicles, so you may be familiar with its operation. In the following sections, you will find pictures of all operable elements and the corresponding description or function.

First of all, you should jump to the interior view of the vehicle by pressing „F1“ on your keyboard.

Dashboard „VÖV“



1. Steering column adjustment up/down
2. Steering column adjustment forwards/backwards
3. Steering column (steering wheel visibility)
4. Steering column switch (indicators/high beam)
5. Steering column switch (wiper/washer)
6. Parking brake lever
7. IBIS 2 MAS 3
8. Dashboard

While adjusting the steering column with the rotary knob (1) or (2), the mouse button needs to be held down. The steering column can be adjusted with a mouse movement (up-down or left-right). As soon as the preferred setting is reached, the knob must be released to lock the steering column in the selected position.

To lock or unlock the steering wheel, simply click on the steering column (3).

To release or activate the parking brake, the lever must be clicked and dragged up/down with the mouse.

Important Note:

The high beam (steering column switch or button „F") must be held down for approx. half a second to engage, otherwise only the headlight flasher is activated.

Switches and Instruments

Dashboard Analogue Gauges (Red)

1. Supply/brake pressure circuit 1 gauge
1. Supply/brake pressure circuit 2 gauge
2. Cooling water temperature
3. Tank level
4. Oil pressure gauge

Dashboard control lights (Turquoise)

5. Central fault
6. E-Gas fault
7. Battery charging fault
8. High beam
9. Turn signals
10. Passenger stop request
11. Doors open
12. Doors closed
13. Parking prake
14. Cooling water temperature
15. Gearbox temperature
16. Retarder
17. Door release
18. Auxiliary Heater
19. Mirror/Window heater
20. ABS Check
21. ASR Check

Dashboard Switches (Green)

1. Door wing lock on/off
2. Driver light on/off
3. Interior light front on/off
4. Interior light middle/rear on/off
5. Auxiliary front heater on/off
6. Auxiliary heater on/off
7. Front Heater Fan Speed 2/off/1
8. Front Heater Fan Speed 3/off
9. Interior Heater Fan Speed 1/2/off
10. Emergency door opener for 3rd door (SG292 only)
11. Heater driver window
12. Heater mirrors
13. Door release for 3rd door (SG2x2 only)
14. Retarder (only with „Retarder with Button“ (Setvar/Printer))
15. Fog lights (only when activated via Setvar/Printer)

Dashboard Buttons/Levers/Key (Pink)

1. Rear fog lights
2. Engine-off switch
3. Key switch (parking light, low-beam and ignition)
4. Engine-on switch
5. hazard lights
6. bus stop brake without door release
7. door opener front door
8. door opener rear door

Dashboard Gear Selector (Yellow)

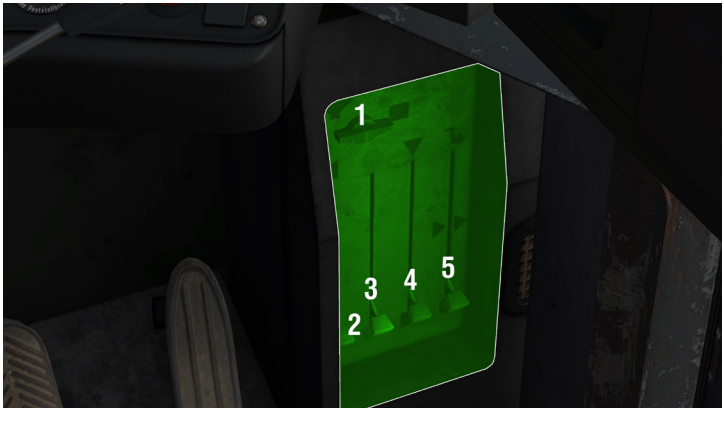
The individual gears can be engaged (and locked) by pressing the corresponding button. If the selection is set to „D“, all gears are shifted through. Reverse gear can only be selected when the vehicle is stationary.

Important Note:

The gear selection buttons are only available when the automatic transmission is selected!
The transmission type should only be changed when the vehicle is stationary and in „Neutral“ gear.

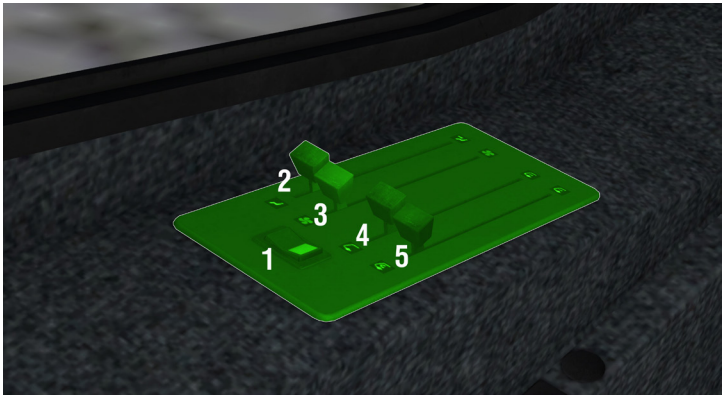
Dreiha Heaters

MAN SL/SG



1. Air distribution interior/windshield
2. Air distribution driver/interior
3. Air temperature
4. Air distribution Front/Interior
5. Air supply exterior/mixed/recirculated

MAN SÜ



1. Switch SMOG
2. Air distribution driver seat/footwell
3. Air distribution front windshield nozzles
4. Air distribution passenger compartment
5. Heating power control lever

Operation

The air conditioning cabinet installed is a fan-assisted dynamic pressure ventilation system - in normal operation, the fan does not need to be switched on if the air conditioning cabinet is set to supply air. (MAN SG/SL: lever (5) up, MAN SÜ: switch (1) deactivated)

The temperature of the air conditioning cabinet is set with lever (3) on the MAN SG/SL and with lever (4) on the MAN SÜ. In addition, the blower can be activated using the dashboard switches (7) and (8).

To bring the vehicle up to temperature more quickly and effectively (in winter, for example), the fan can be activated at level 3 and the air distribution can be set to recirculation.

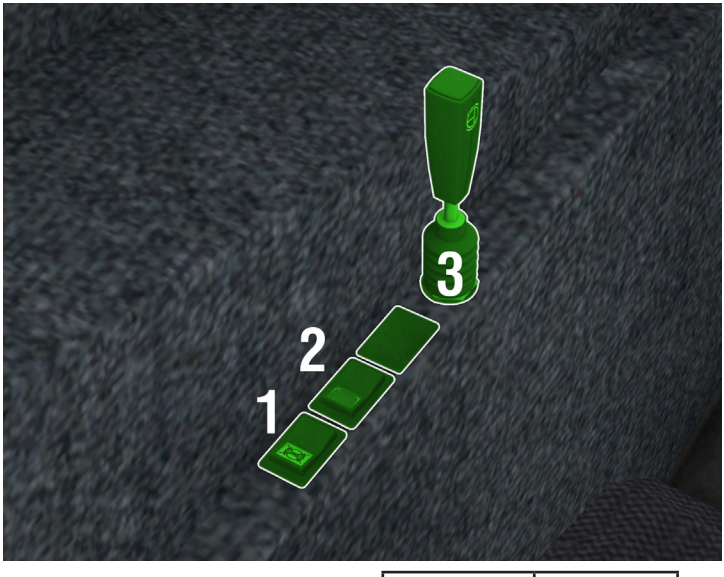
Important Note:

The space heaters (dashboard switch 9) should be used to heat up the vehicle. The front heater does not have the thermal capacity to bring the vehicle up to temperature on its own.

Speed 3 of the front heater fan (instrument panel switch 8) is only active when the fan (switch 7) is switched on. When the engine is switched off, the fan only continues to run in the 1st stage (economy mode).

Recirculation mode should only be activated in the event of heavy outdoor air pollution or exhaust gas pollution. (MAN SL/SG: lever (5) down, MAN SÜ: switch (1) active)

Side Panel and Top Panel



1. ASR on/off
2. Roof exhaust on/off
3. Retarder lever with increments

▲	OFF
•	1
•	2
▼	3

Important Note:

Pull the hand lever backwards with the mouse or using the keyboard event to increase the braking effect. The indicator lamp in the instrument panel lights up.

ATTENTION: To accelerate the vehicle, the lever must be moved back to „OFF“ (all the way to the front)!

1. Schedule
2. Without function
3. Driver Fan
4. Driver Fan Speed

Important Note:

The driver's fan can be adjusted according to the seat position by clicking on (3) in combination with mouse movements up/down and left/right. The speed of the fan can be adjusted by clicking on the adjustment wheel (4) in combination with a left/right mouse movement.

IBIS 2 MAS 3

A new IBIS 2 MAS 3 was developed for this Add-on, which differs in some points from the known implementations in OMSI. It is recommended that you read this manual to ensure correct operation!

Important Notes:

A correct entry is acknowledged with a „high" beep, if use of the button is not permitted in the current mode, a „low" beep or an error tone is played.

The IBIS automatically checks whether the corresponding line/route combination is stored in the *.hof file. If this is the case, the IBIS automatically accepts the entry and moves it in the line/route field. If the line or route does not exist, this error is acknowledged with a message on the display (LINIE FALSCH! or ROUTE FALSCH!). Error messages and information must be confirmed by pressing the [Eingabe/Quitt'g] button.

Line numbers are entered **WITHOUT** leading zeros or special line characters. This IBIS supports up to 5-digit lines, so it is no longer possible to enter special line characters in this form. The entry of special line characters is taken over by another function explained later (see below).

Basic Informations

Keypad (Grey)

The keypad has double assignments. If the IBIS is in main mode (top image), the printed function is activated. If you are in a subroutine, pressing this button is now registered as a numerical input.

1. Enter Line Number | Zahl 1
2. Enter Route Number | Zahl 2
3. No Function implemented | Zahl 3
4. Enter Destination Number | Zahl 4
5. No Function implemented | Zahl 5
6. No Function implemented | Zahl 6
7. No Function implemented | Zahl 7
8. No Function implemented | Zahl 8
9. No Function implemented | Zahl 9
10. Date/Clock | Zahl 0

Keypad (Blue)

As soon as the destination signs have been initialized, they can be formatted with the buttons 1-4. Both the line and the target can be inverted either together or separately.

1. Line number and destination standard
2. Line number inverted, destination standard
3. Line number and destination inverted
4. Line number standard, destination inverted
5. Automatically sets destination text to lower case
6. Automatic stop announcements on/off
7. Delete
8. Enter/confirm

Keypad (Green)

1. Activate stop anouncements
2. Advance stop anouncements
3. Dectivate stop anouncements
4. Retard stop anouncements

Important Note:

The [Notruf] ,[Sprechwunsch] and [Innen/Aussen] buttons have no function.

Operation

Setting the Line Number

After switching on the electrical system, the IBIS greets you with a signal tone and is ready for use from this point on.

Pressing the „1“ button takes you to the line menu. The message „LINIE/KURS“ flashes in the menu to indicate that an entry can be made.

The line is entered **WITHOUT** a **prefix** or **suffix**. For example, if we want to drive line „76", we enter „76" in this field and confirm with the „Enter" button.

The IBIS now checks whether the line is stored in the selected *.hof file. Depending on the number and height of the line numbers, this may take a few seconds. If the line is found, it is transferred to the Linie/Kurs field and is sent to the destination signs for displaying. If the line entered is not found, a message is displayed which must be acknowledged by pressing the [Eingabe] button.

Important Note:

Even if the line is not stored in the *.hof file, it is still transferred to the destination display so that fictitious routes can be simulated.

Setting the Route Number

The next step is to enter the route by clicking on the „2" button. Either „1" „01" preceded by a zero is a valid syntax for the route. After confirming the route with the [Eingabe] button, the IBIS checks again whether the line/route combination is available in the *.hof file. If successful, this is transferred to the route field. If the route is incorrect, the following error message must be acknowledged by pressing the [Eingabe] button.

Once the line/route information has been successfully entered, the IBIS transfers the Route and Ziel Numbers to the Display and sets the corresponding destination on the destionation signs. Within the first 10 seconds, the IBIS displays the terminus, then the display changes to the current stop.

Setting a Custom Destination or Special Character

By pressing the „3“ button, the IBIS switches to the destination entry menu. If a line/route has previously been successfully described, the current terminus code is displayed in this menu.

The terminus code can be adjusted accordingly using the „Delete“ button. If the menu flashes on the display, immediate entry is possible without removing the terminus code. This menu is acknowledged with the [Eingabe] button.

After the terminus code has been (re)set, the IBIS switches to the special line character menu. In here, the line number in the destination displays can be equipped with prefixes or suffixes, and special characters can also be displayed here.

A detailed list of special characters, prefixes and suffixes can be found in „Appendix 3: Destination Displays“.

This menu must also be acknowledged with the [Eingabe] button.

Special Functions

The formatting of the destination displays can be altered using the blue buttons in the middle of the IBIS. A detailed description of the options can also be found in „Appendix 3: Destination Displays“.

The green function buttons can also be used to (de)activate the stop announcements. The arrows are used to advance or retard the current stop.

The IBIS also has a departure message. If the departure time at the start bus stop is reached, a warning message sounds and the display shows „Bitte abfahren!“. This message must be acknowledged by clicking on [Eingabe].

Important Note:

The IBIS automatically changes the route at the terminus if an alternative route is found. If route „01“ is active, the IBIS automatically switches to route „02“. If route „03“ is active, the IBIS automatically switches to route „04“. After the return route, the IBIS switches

back to the first route. For maps that use a more complex route system, this function can be deactivated in the following IBIS configuration file.

The following settings can be made in the file **„.../OMSI 2/Vehicles/MAN_SL_SG/Scripts/MAN_SG_IBIS_constfile.txt“**:

Setting	Variable	Options
Startup melody	Startup_Melody_Type	0 = OFF 1 = Single 2 = Double 3 = Multiple 4 = Tripple 5 = Not Accepted 6 = Error 7 = Roulez Tambours 8 = Tout Simplement 9 = Pink Panther 10 = Schatz am See 11 = Oh Christmas Tree 12 = For Elise
departure warning if the time until departure is < 6 seconds	has_departure_warning	0 = OFF 1 = ON
departure sound	departure_Melody_Type	as in startup melody
automatically switch to next/previours route at arrivial	switch_to_next_route_at_last_stop	0 = OFF 1 = ON

English

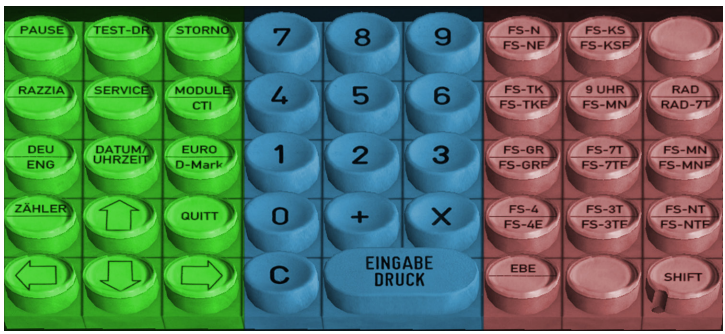
Ticketprinter Krauth AK 100

Unlike most printers in OMSI or in reality, the „AK100“ printer shown here is integrated directly into the pay table. The printing unit and the main computer are hidden in the payment table; as the player, we only see the control panel.

The control panel of the AK100 consists of 3 main groups: The system buttons on the left, the number field in the middle and the buttons for ticket sales on the right. There is also a „Shift“ button in the ticket sales area, which can be used to activate the double assignment of the respective buttons.

Overview

The functions of the individual buttons are described in more detail below:



System Buttons (Green)

Button „Pause“	Go to pause mode
Button „Test-Dr“	Prints a test ticket
Button „Storno“	Cancel the last printed ticket
Button „Razzia“	Locks the ticket printers
Button „Service“	No function implemented
Button „Module|CTI“	Go to configuration menu

Button „DEU|ENG“	changes the ticket printer language
Button „Datum|Zeit“	shows the current time and date
Button „Euro|D-Mark“	changes the currencty between € and DM
Button„Zähler“	shows the amount and revenue of tickets sold since vehicle was spawned
Button „Quitt“	prints a receipt for the last printed ticket

Keypad (Blue)

The number keypad is self-explanatory and is required for entering numbers. The „+“ and „*“ keys have no function in OMSI.

The „C“ key is required to delete entries, the „Eingabe/Druck“ key is required to confirm an entry/function and to trigger a print.

Ticket Keypad (Red)

The keypad is programmed dynamically and adapts accordingly to the ticket packs of maps on which the vehicles are to be used. If the standard tickets are stored in the ticket pack, the above-mentioned button layout is active. The designations are abbreviations of the tickets.

The ticket designations are made up of the designations listed on the next page.

Important Note:

If the ticket pack of a map differs from the standard pack, the keypad switches to generic mode and only displays „FS-1“ to „FS-28“ instead of the ticket designation. The tickets are sorted in ascending order and thus correspond to the order stored in the ticket pack.

Ticketnames

Keyboard Name	Meaning	Example
FS N E T K MN GR 4 Rad	Ticket Normal/Night reduced rate Da(il)y Card Month Group 4x Ticket Bicycle	„FS-3TE“ = „Ticket, 3 Days, reduced rate“ „FS-GRE“ = „Ticket, Group, reduced rate“.

Operating the AK 100

System Start and Login

After enabling the on-board electronics and waiting for a short system start-up phase, the printer greets us with a request to insert the driver module. The module is located on the shelf between the cash desk and the dashboard. Click on the driver module to insert it into the printer.

If the driver module has been inserted, the AK100 asks for the driver pin. The Pin is located on the control panel itself for ease of operation. After entering the pin, confirm it by pressing the „Eingabe“ button. If the entry is correct, the printer now switches to drive mode - if the entry is incorrect, the pin must be entered again.

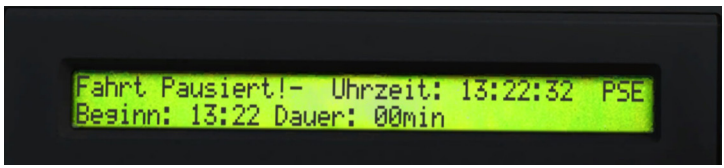
Driving Mode

All printer functions can now be operated from the driving mode.If a line and route number was put into the IBIS, the printer displays the current line, the current stop and the destination of the vehicle in the driving mode.

The right-hand area of the display is used for menu information.The first line shows the current currency, the bottom line is kept free for further information (menu page, Razzia, etc.).

Mode „Pause“

The AK100 can be switched to break mode by pressing the „Pause“ button.If the query „Fahrt pausieren?“ is confirmed with [Eingabe], the printer switches to break mode and displays the current time, the start time of the break and the duration of the current break.



Click on „C“ or „Enter“ to continue the work after confirming the „Fahrt fortsetzen?“ prompt.

Mode„Quittung", „Testdruck" und „Storno"

These modes print either a receipt, a test print or a cancellation. If the query is confirmed with [Eingabe], the respective action is carried out and a receipt is printed. Cancellation receipts can only be created and printed once after a ticket has been sold - so only the last ticket can be canceled!

Mode „Razzia"

This button can be used to lock the ticket stampers after confirming the „Entwerter sperren?" query. The active Razzia function is shown in the lower right-hand area of the Ak100 display. After confirming the „Entwerter Entsperren?" query, the validators can be activated by pressing the button again.

Important Note:

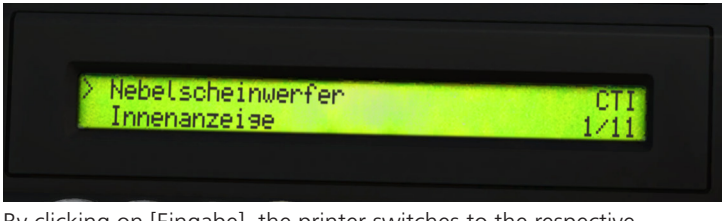
For technical reasons, it is not possible to lock the validators in OMSI.

Mode „Module/CTI"

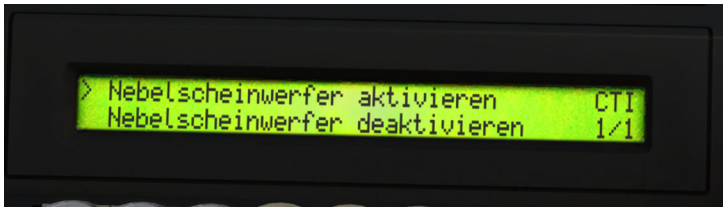
This button can be used to adjust the vehicle equipment, provided this is permitted for the selected repaint.

After clicking on the „Modules/CTI" button, the printer switches to the „Vehicle configuration" sub-mode.

The arrow buttons can be used to switch through the various menus. The lower right area of the display shows the current page of the menu.



By clicking on [Eingabe], the printer switches to the respective submenu.



If the selection is confirmed with „Enter“ in this example, the vehicle will be equipped with fog lights. If you do not wish to make any changes, you can exit this menu by pressing the „C“ button.

Important Notes:

A detailed list of all available setting options can be found in the appendix of this manual.

Some submenus have more than 2 menu items - it is therefore advisable to pay attention to the right-hand edge of the display and the number of pages when selecting options.

Mode „DEU/ENG“

Click on the „DEU/ENG“ button to change the language of the printer. The default language is German. To switch to English, the „Shift“ button must first be activated.

Mode „Datum/Uhrzeit“

Click on the „Date/Time“ button to display the current time and date. This menu can be exited by clicking on „C“ or „Enter“.

Mode „EUR/D-Mark“

Click on the „EUR/D-Mark“ button to change the currency of the printer and the pay table. To change to „D-Mark“, the „Shift“ button must first be activated.

Mode „Zähler"

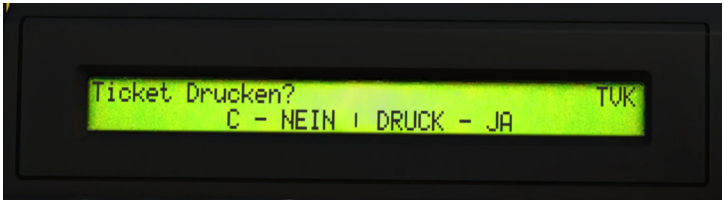
By clicking on the [Zähler] button, you can check the sales statistics and view the revenue and number of tickets sold.

Mode „Verkauf"

Clicking on a ticket button switches the printer to sales mode. The „Shift" key must be pressed beforehand for the second assignment of the key.

The selection can be confirmed by pressing the [Eingabe] button; pressing the „C" button takes you back to the driving menu.

After confirming the selection, the ticket can be printed by confirming the „Ticket drucken?" query.



The ticket dispensing slot is located at the front of the ticket counter. Tickets are automatically picked up by the passenger.

Important Note:

The ticket printer with cash desk can be adjusted to any sitting position. Both the cash desk and the lever between the driver's door and the cash desk can be moved at the click of a mouse.

Operating the Vehicle

The basic operation of the vehicles is already described in the **OMSI 2 manual**. The vehicles of type „Standard II" are standardized and hardly differ in their basic handling, but I would like to mention a few peculiarities:

The on-board electronics can be switched on with the „E" button. Make sure that the automatic transmission's gear selector is in „Neutral" or that, in the case of a manual transmission, the clutch is depressed. Start the engine using the „M" button or the pushbuttons on the dashboard.

After successfully starting the engine, the vehicle needs a certain amount of time to build up compressed air, which is required for vital functions such as the brakes, air suspension or doors. After the „central fault" indicator light has gone out and the flashing door buttons have gone out aswell, a sufficient amount of compressed air

should have built up in all 4 air circuits (service brakes 1 and 2, parking brake and auxiliary units) to enable the vehicle to be set in motion.

Now shift the automatic transmission to „D", apply the brake and release the parking brake with the „." button. The vehicle will now start moving.

Important Notes:

-The vehicle has an automatic stop brake that prevents the vehicle from moving when the doors are opened or the door release is engaged. Make sure that indicator lights 7 and 13 go out before departure and indicator light 8 is active (see chapter Dashboard VÖV)

-The vehicle is equipped with a continuous braking system (retarder). If the „Retarder via lever" function is used instead of „Retarder via brake pedal", make sure that it is set to the zero position to accelerate the vehicle!

-Changes to the vehicle settings should only be made when the vehicle is stationary.

-The room temperature can only be set to a limited extent using the heating levers. To warm up a vehicle sufficiently, the room heaters must be activated! (see chapter Dashboard VÖV)

FAQ

Question: *„The vehicle's destination signs do not show anything on some maps. How can I fix this problem?"*

Answer: Each OMSI vehicle requires a so-called „hof-file", which contains all stops, destinations, terminus codes and much more. For technical and legal reasons, the corresponding files cannot be supplied for all maps. In order to use the vehicles on your own or third-party maps without any problems, the *.hof-file (e.g. Grundorf. Hof) must be copied into the main folder of the vehicle. This add-on follows the standard format for hof-files.

Question: *„I have modified this Add-on and would like to share my changes with the community. Am i free to do so?*

Answer: Yes, this is not a problem if a few rules are observed. Care must be taken to ensure that no original files are published and that the change cannot be run independently (the add-on must be required). Changes to the model are generally permitted in a private context, but the developer of this add-on must be contacted before publication.

Question: *„I have installed a mod for this add-on and now the buses no longer work. What should I do?"*

Answer: In case of problems with third party mods, please contact the respective developer. Support for this product is only possible in unmodified form, as the source of the error cannot be effectively limited due to the variety offered by OMSI.

Question: *„I have created/installed a repaint for this add-on and now all repaints no longer work correctly. Help!"*

Answer: the formatting of the repaints is incorrect. Care must be taken to ensure that the *.CTI file has been written correctly. Invisible characters or incorrect variables are mostly the source of such problems. Due to the variety of available repaints in the community, no support can be provided here for such issues

Question: *„At my local transport company, the vehicle was equipped slightly differently. Can you add that in a patch?"*

Answer: No, unfortunately this is not possible. The vehicle configuration is a matter of ordering and it is not possible in terms of time to implement every possible variant. The vehicle already offers many configuration options; unfortunately, special requests cannot be implemented. Nevertheless, I am always open to feedback and ideas and do not want to rule anything out.

Answer: *„The windows on my repaints are black or opaque. What can I do?"*

Antwort: Repaints for this add-on must be created according to a special scheme. The transparency channel (alpha channel) of the main texture defines the transparency on the windows. Ideally, the textures for repaints should be saved in the DDS format „DXT5" with 100% transparency (or 0% visibility). However, this is not possible for compatibility reasons in some graphics programs, so I recommend saving with a visibility of „1".

Answer: *„I have a request and would like to contact the developer. How do I get in touch?"*

Antwort: Feedback and support requests of all kinds can be sent via e-mail to **info@btsimpro.de**. For small talk with the development team, please use the developer-owned Discord server below.

Support requests of a general nature are of course also possible via the official Aerosoft support team.

discord.gg/chrizzly3d

Appendix 1: Vehicle Configuration

The following settings can be adjusted via the repaint or during the game via the „Module/CTI“ menu of the printer (see chapter Ticket printer Krauth AK 100):

Fog Lights

Adds some fog lights to the vehicles front mask

Fog lights disabled	Fog lights enabled
	

MAN Emblem

Adds the „MAN“ Emblem to the vehicles front mask

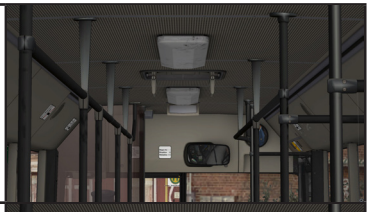
MAN emblem enabled	MAN emblem disabled
	

Important Note:

For the best visual implementation, this function should be combined with the logo multiplication layer in the repaint template!

Interior Display

defines the type of interior display

Classic STOP-Display	
Interior display type “VFD”	
Interior display type “LED”	
No interior display	

Hubcaps

defines the hubcap type

No hubcaps	
Hubcaps type 1	
Hubcaps type 2	
Hubcaps type 3	

Number Plate Type

switches between DIN and EURO Style number plates

Numberplate type DIN	Numberplatetype EURO
	

Drivers Side destination sign

adds a line number destination sign the the driver side of the vehicle.

Line number dest. sign enabled	Line number dest. sign disabled
	

Doortype (Front, Middle, Rear)

switches between two door variants

Doortype “fully windowed”	Doortype “half windowed”
	

English

Destination Sign Type

switches between different destination signs

Destination sign “Flipdot”	
Destination sign “LED”	
Destination sign “ANNAX”	
Destination sign “Rollband”	

Stamper Type

switches between two stamper types

Stamper type Klüssendorf	Stamper type Elgeba
	

Advertisements

Adds Advertisements to the vehicle

ads enabled	Ads disabled
	

Exhaust Type

switches the exhaust exit point

Roof exhaust	Normal exhaust
	

Dooropener Type

switches the door opener for the automatic door (MAN SG292 only)

Dooropener Type Box	Dooropener Type stop request
	

Mudflap

adds a mudflap the the rear of the vehicle

Mudflap disabled	Mudflap enabled
	

Engine Type

changes the Engine Type of each vehicle

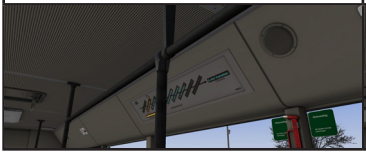
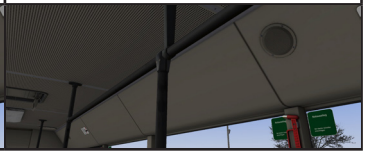
Vehicle	Option 1 (Standard)	Option 2
MAN SG 292	D2866 TUH (Turbo), 290 PS	D2866UH, 240 PS
MAN SL 202	D2566UH, 200 PS	D2866UH, 240 PS
MAN SÜ 242	D2866UH, 240 PS	D2866 TUH (Turbo), 290 PS

Important Note:

The vehicle designation specifies the standard motorization of the vehicles .

LVA (LineProgressDisplay)

adds an LVA to the vehicle

LVA enabled	LVA disabled
	

Revcounter

switches the standard tachometer to a different one that includes a rev counter

Revcounter enabled	Revcounter disabled
	

Gearboxtype

switches between automatic and manual gearboxes

ZF-Ecomat 5HP-5xx automatic	ZF-manual gearbox
	

English

Automatic Stop Brake

changes the behaviour of the doors and stop brake

Type 1, doors need active stop brake	Type 2, doors dont need active stopbrake

Appendix 2: CTI/Setvar Configuration

In addition to dynamic configuration with the ticketprinters help, pre-configuration via the repaint is also possible.

The following syntax is required for OMSI to recognize the configuration correctly:

[setvar]

Variable

Wert

Example:

[setvar]

setvar_gearboxtype

1

Important Note:

There must be **NO** spaces or invisible characters before or after the keywords! If the syntax in a repaint is not correct, this can lead to a restriction of the add-on's functions. The following table lists all existing variables with their corresponding values. Modules that are added by extensions after the add-on has been released cannot be stored in the manual. These can be found in the add-on folder of the project as „Nachtrag.pdf".

Function	Variable	Value	MAN SG	MAN SL	MAN SÜ
locks the ability to dynamically change the vehicle setvars	setvar_ modification_ locked	0 = modification enabled 1 = modification disabled	X	X	X
is a custom roof panel used or should the standard one be visible?	setvar_custom_ roofpattern	0 = standard roof texture 1 = custom roof texture	X	X	X
Interior display type	setvar_stopdisplay	0 = STOP-Sign 1 = Type VFD 2 = Type LED 3 = no display	X	X	X
destination sign type	setvar_ destinationdisplay	0 = Type Flipdot 1 = Type LED 2 = Type ANNAX 3 = Type Rollband	X	X	X
Fog lights	setvar_foglights	0 = disabled 1 = enabled	X	X	X
Hubcaps front	setvar_hubcap_ front	0 = disabled 1 = Hubcap Type 1 2 = Hubcap Type 2 3 = Hubcap Type 3	X	X	X

Function	Variable	Value	MAN SG	MAN SL	MAN SÜ
Hubcaps mid (SG) Hubcaps rear (SL, SÜ)	setvar_hubcap_ middle	0 = disabled 1 = Hubcap Type 1 2 = Hubcap Type 2 3 = Hubcap Type 3	X	X	X
Hubcaps rear (SG)	setvar_hubcap_ rear	0 = disabled 1 = Hubcap Type 1 2 = Hubcap Type 2 3 = Hubcap Type 3	X		
MAN Emblem	setvar_MAN_Logo	0 = disabled 1 = enabled	X	X	X
Number plate type	setvar_ numberplate_type	0 = DIN number plate 1 = EURO number plate	X	X	X
driverside destination sign	setvar_ destinationdisplay_ driverside	0 = disabled 1 = enabled	X	X	X
Door type front (SL, SG)	setvar_doortype_ front	0 = half-glass 1 = all-glass	X	X	
Door type mid (SG) Door type rear (SL)	setvar_doortype_ middle	0 = half-glass 1 = all-glass	X	X	
Doortype rear (SG)	setvar_doortype_ rear	0 = half-glass 1 = all-glass	X		

Function	Variable	Value	MAN SG	MAN SL	MAN SÜ
Exhaust type	setvar_ exhausttype	0 = normal exhaust 1 = roof exhaust	X	X	X
Advertisements	setvar_ advertisement	0 = disabled 1 = enabled	X	X	X
Stamper type	setvar_ stampertype	0 = Type Klüssendorf 1 = Type Elgeba	X	X	X
door opener type (SG)	setvar_ dooropenertype	0 = Type stop request 1 = Type Box	X	X	X
Engine type	setvar_enginetype	SG: 0 = D2866 TUH 1 = D2866 UH SL: 0 = D2566 UH 1 = D2866 UH SÜ: 0 = D2866 UH 1 = D2866 TUH	X	X	X
Mudflap rear	setvar_mudflap	0 = Mudflap disabled 1 =Mudflap enabled	X	X	X
Retarder type (only with automatic gearbox)	setvar_ retardertype	0 = Retarder with brake pedal 1 = Retarder with lever	X	X	X
LVA	setvar_LVA	0 = disabled 1 = enabled	X	X	X

English

Function	Variable	Value	MAN SG	MAN SL	MAN SÜ
Revcounter	setvar_DZM	0 = disabled 1 = enabled	X	X	X
gearbox type	setvar_ gearboxtype	0 = ZF automatic 1 = ZF manual gearbox.		X	X
door needs stop brake	setvar_ autostopbrake	0 = disabled 1 = enabled			X

Appendix 3: destination signs

special characters

The destination signs support a variety of special characters, which are defined in the following table. Prefix places a character string before the line number, suffix places it after the line number, replacement replaces the line number with a predefined special character/character string.

Code	prefix	suffix	replace	Example
old-code compatibility:				
00	-	-	-	123
01	X	-	-	E 123
02	-	-	X	▲
03	-	-	X	웃웃
04	-	X	-	123 N
05	X	-	-	S 123
06	X	-	-	A 123
09	X	-	-	E 123
10	-	X	-	123 E
11	X	-	-	D 123
12	X	-	-	C 123
13	X	-	-	B 123
14	X	-	-	A 123
15/35	X	-	-	N 123
23/24	X	-	-	S 123
25/26	X	-	-	U 123
27/28	X	-	-	M 123
29	-	-	X	BVG
30	-	X	-	123 S
31	-	X	-	123 U
32	-	X	-	123 M
36	X	-	-	X 123
only new codes from here on:				
37	-	X	-	123 X
40	X	-	-	A 123

Code	Präfix	Suffix	Ersatz	Beispiel
41	-	X	-	123 A
42	X	-	-	B 123
43	-	X	-	123 B
44	X	-	-	C 123
45	-	X	-	123 C
46	X	-	-	D 123
47	-	X	-	123 D
48	X	-	-	E 123
49	-	X	-	123 E
50	X	-	-	F 123
51	-	X	-	123 F
52	X	-	-	G 123
53	-	X	-	123 G
54	X	-	-	H 123
55	-	X	-	123 H
56	X	-	-	I 123
57	-	X	-	123 I
58	X	-	-	L 123
59	-	X	-	123 L
60	X	-	-	P 123
61	-	X	-	123 P
62	X	-	-	R 123
63	-	X	-	123 R
64	-	-	X	A
65	-	-	X	B
66	-	-	X	C

Code	Präfix	Suffix	Ersatz	Beispiel
67	-	-	**X**	D
68	-	-	**X**	E
69	-	-	**X**	F
70	-	-	**X**	G
71	-	-	**X**	H
72	-	-	**X**	I
73	-	-	**X**	X
74	**X**	-	-	SB 123
75	**X**	-	-	NE 123
76	-	-	**X**	SEV
77	-	-	**X**	DB
78	**X**	-	-	RB 123
79	**X**	-	-	EV 123
80	-	-	**X**	AX
81	-	-	**X**	BX
82	**X**	-	-	FW 123
83	-	-	**X**	Detour
84	-	-	**X**	Soccer
85	-	-	**X**	Tram
86	-	-	**X**	X
87	-	-	**X**	Bus
88	-	-	**X**	Christmas tree
89	-	-	**X**	Airplane
90	-	-	**X**	P+R
91	-	-	**X**	PS
92	-	-	**X**	DX

Destination Sign Formatting

Thedestination signs can be manipulated using the blue keypads on the IBIS. The following functions are available:

Line inverted:	
destination inverted:	
Line and destination inverted:	
Standard:	
automatically convert to lower case: