

New feature: Driving and working without operating the clutch.



Unimog with
AutomaticShift®
Setting new standards
of operating comfort.

<http://www.mercedes-benz.com/unimog>



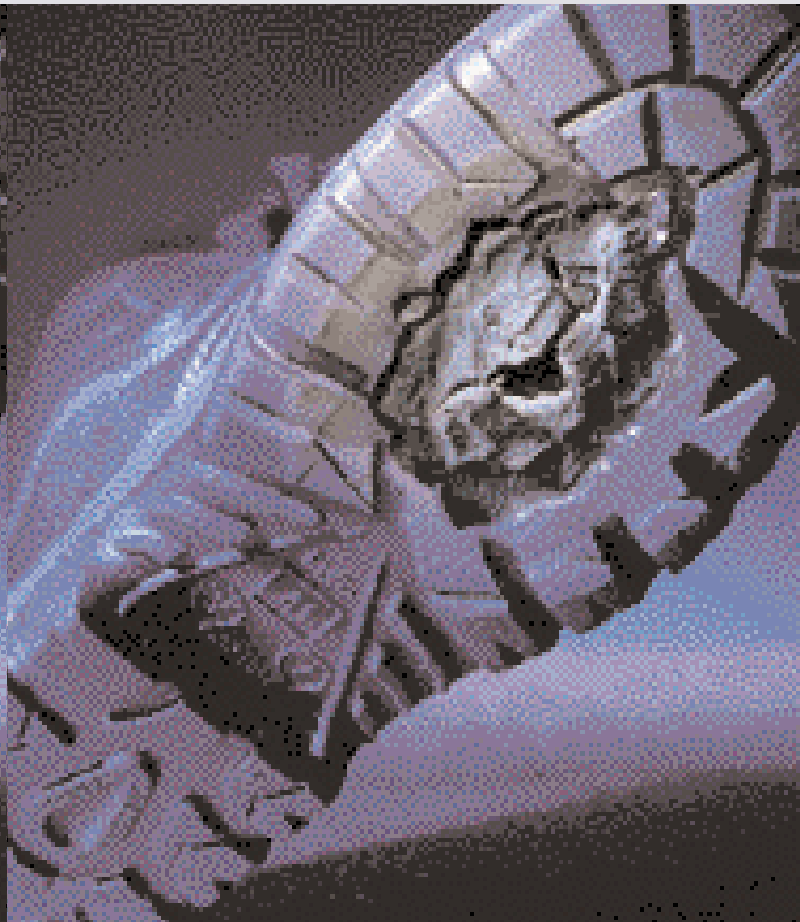
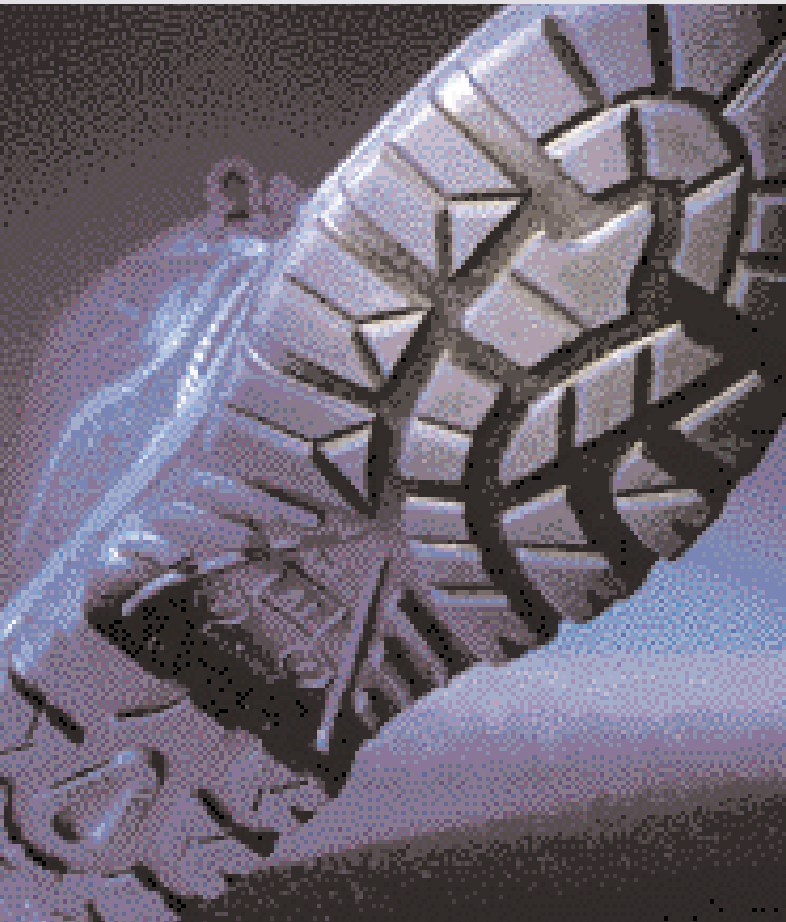
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Automatic shifting.

► Driving and working without operating the clutch – just like driving an automatic transmission. AutomaticShift® significantly contributes to relieving you during transport and working applications. Thus, you can concentrate on the working processes and the traffic situations even more effectively.

► You can choose freely between automatic and manual shifting, just by pressing the button. M means manual gear change. With A, gears are changed automatically. For both modes, you do not need to operate the clutch.

► AutomaticShift® is available for less than 3.000,- EUR for the Unimog Implement Carriers U 400 and U 500 as well as for the High-Mobility Vehicles U 3000/U 4000/U 5000. The Unimog is herewith not only an innovative step ahead of its competition but also a step ahead with respect to the price-performance ratio!

Basic functions.

AutomaticShift®

► AutomaticShift® means Electronic Automated Shifting. This special feature automates all gear shifting: operating a clutch pedal is not necessary, and gears are chosen automatically. Unlike automatic transmission, AutomaticShift® does not need a torque converter. The Unimog's drivetrain is just supplemented by electronic and mechanical components. Compared to the classical transmission, weight can be reduced significantly. The Unimog's payload remains the same.

► With AutomaticShift®, you can choose freely between automatic and manual shifting. For both modes, you need not to operate the clutch. Just press the button. If you choose the "A" mode, gear shifting will be automatic. This allows you to always drive in the most optimal gear. Additionally, it means a lot of stress relief for the driver and a lower fuel consumption.

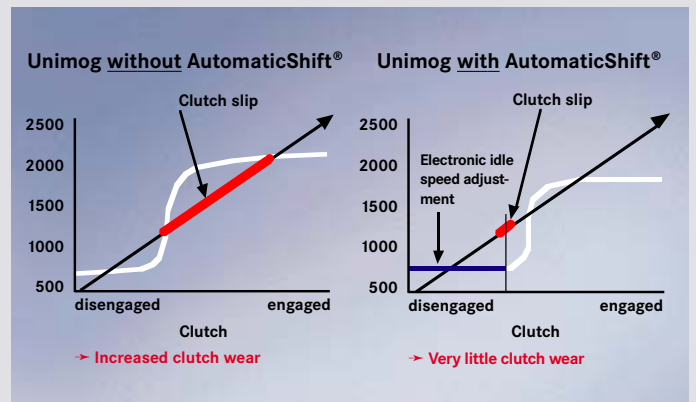
► If you press the "M" button, gear shifting will be manual: Pre-select the gear via the gearshift lever manually, clutch activation and gear changing will follow automatically. This mode is advantageous when driving off-road or during implement operation.

► For both modes, you can use the engageable clutch pedal, if necessary, which allows you to change into the classical electronic pneumatic shifting.

► Clutch wear is reduced to a great degree. Due to the automatic engine speed regulation and engine torque adjustment when changing a gear, clutch slip is reduced to a minimum.

► Safe working at constant engine speed: Gears are only shifted if you decide to do so. With the engine speed regulation, front PTO engaged and/or working and crawler gears, only the "M" mode is activated.

► Conclusion: You can always take advantage of AutomaticShift® – when working with implements, while driving on roads and during off-road operations.



Driving operation.

Starting

► Start engine, transmission is in “Neutral“ position. Depress hand and/or foot brake. Pre-select the driving direction (forward/reverse) by shifting the gear lever up or down. When starting for the first time the second gear is automatically selected. Subsequently, due to shifting up or down, you can also start with the third or first gear. You start by depressing the accelerator pedal. Depending on how you depress the accelerator pedal, the clutch will react accordingly: If you strongly depress the pedal, you will drive off dynamically. If you depress it carefully, you will drive off smoothly.



Driving/Gear changing

► Pre-select the desired mode on the “A/M” mode switch. Keep on driving with the acceleration pedal depressed. When driving in automatic mode, the gears are shifted according to the respective driving conditions (slope, vehicle weight, torque etc.). You can also shift gears manually at any time (press “M” switch mode and appropriately operate the gearshift lever). AutomaticShift® facilitates driving in any situation, e.g. when driving with or without implement attachment and during trailer operation, allowing for a highly increased operating comfort.



Manoeuvring

► Recommendation: mode “M”. Depress the acceleration pedal carefully - the clutch will be activated after 10% of pedal travel has been reached. In combination with Electronic Quick Reverse EQR (standard equipment), the comfort of shifting up and down in a short period of time will even be improved, a feature which is appreciated during winter service, e.g. snow clearing on crossings. This allows you to work efficiently, and traffic will flow smoothly again.



Implement operation.

Mowing

► When mowing, drive at “M” mode, pre-select the desired gear and adjust the necessary engine speed via ADR mode (engine speed regulation). Despite a constant engine speed, you can shift into another gear at any time – due to AutomaticShift®, without operating the clutch.



Cleaning

► Fast reversing while using the brakes and foot throttle (when EQR is activated) assists in immediate reaction times. Thus quicker and more efficient working is possible, ie. when sweeping a construction site or parking lots.



Winter service

► During snow clearing operations on transit roads, the automatic mode will be the appropriate one. When driving in narrow city conditions, the M mode will be more appropriate. If you clear crossings, for instance, keep the M mode and additionally switch on EQR. Thus, AutomaticShift® eases rough winter service operations. You can keep calm and concentrate on the traffic situation perfectly.



Off-road operation

► AutomaticShift® takes over shifting which allows you to completely concentrate on driving. If the driving situation is not that difficult, the automatic mode will be the most appropriate. When driving in difficult off-road terrain, the “M” mode will be more advantageous by far: When driving along downhill stretches or through mountainous regions, unintended shifting no longer occurs. With AutomaticShift®, safe and comfortable driving can also be guaranteed in off-road situations.



The advantages of AutomaticShift® - an overview.

- 1** AutomaticShift® automates the clutch activation when starting the vehicle, changing gears, manoeuvring and stopping.

 - ▶ No clutch operation, no shifting into the wrong gears – facilitating handling in any driving situation.
- 2** AutomaticShift® will be available for less than 3.000 EUR.

 - ▶ Plus: A classical automatic transmission's purchase price will be a lot higher. So you can save money while having the usual functional advantages of electronic pneumatic engine management.
- 3** AutomaticShift® allows you to work steadily at constant engine speed.

 - ▶ In case of changing operational conditions, e.g when mowing, shifting will be possible at any time – without operating the clutch – even at constant engine speed.
- 4** AutomaticShift® reduces the operating costs.

 - ▶ Clutch wear is reduced to a technical minimum.
 - ▶ Electronic system shift into the most appropriate torque range which allows for a lower fuel consumption.
- 5** Compared to classical automatic transmission, AutomaticShift® saves approximately 200 kg in weight.

 - ▶ Unimog payload is not limited.
- 6** AutomaticShift® and EQR allow for rapid forward and reverse shifting – without operating the clutch!

 - ▶ Due to the rapid forward/reverse shifting, you can work more efficiently and more comfortably.
- 7** Off-road operation with more operational safety and comfort.

 - ▶ With AutomaticShift®, you always drive with a released clutch. Gears are only shifted in manual mode if you decide to do so.
 - ▶ “Rocking-free in off-road operation“ is always possible with AutomaticShift® without any restriction.