

Design.

Cockpit.

In the rider's field of vision, one's eyes initially fall on the high-quality instrument panel with two circular instruments, indicator lights and central colour display. With their arena dials, the instruments provide a classic counterpart to the modern, technical colour monitor with its brushed aluminium frame. The various functions are placed at different levels and this three-dimensional quality gives the arrangement a certain elegance and class which is unusual in a motorcycle. The unit features a painted trim surround in magnesium metallic matt.

Accentuations in White Aluminium metallic matt around the two tweeters and under the two woofers provide further variation of the cockpit surface.

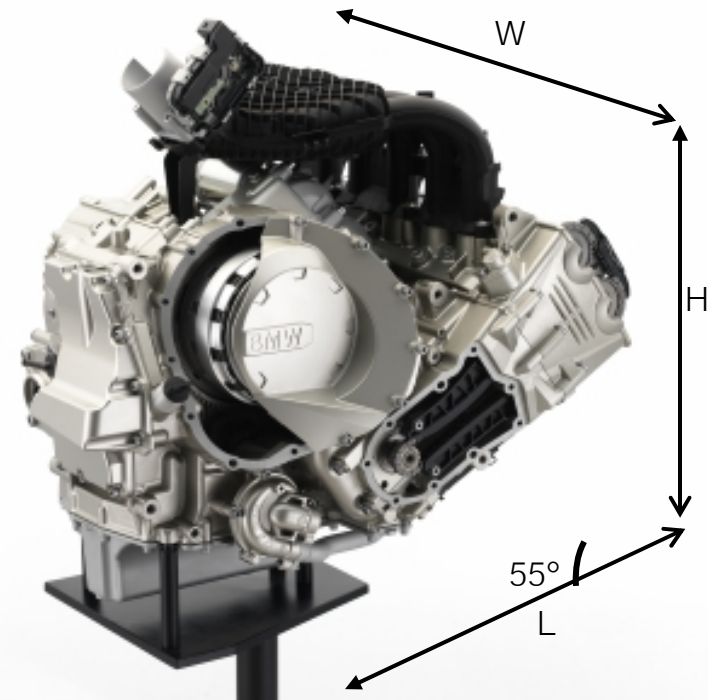
A description of the menu functions and controls is to be found on p. 56 under "On-board operating system".



The BMW 6-cylinder engine.

Details I.

- Capacity 1,649 cc
- Stroke/bore ratio of 67.5 x 72 mm (0.938)
- Max. output 118 kW at 7,750 rpm
- Max. torque 175 Nm at 5,250 rpm
- 125 Nm from 1,500 rpm (70% max. torque)
- Larger engine speed range available
- Large power reserves from 5,000 rpm
- Maximum engine speed 8,500 rpm
- Fuel RON 95
- E-Gas/ride-by-wire: throttle valve actuator receives electronic signal directly from grip sensor
- Three drive modes: Rain, Road, Dynamic
- Dimensions: width 555 mm, height 491 mm, length 578 mm
- Engine weight 102.6 kg
- Oil and water-cooled
- Lightweight construction camshafts



The BMW 6-cylinder engine.

Details II.

- Low fuel consumption due to optimisation of efficiency (low engine speed level, high gas velocities, efficient combustion and minimised frictional loss)
4.5 l/100 km (K 1600 GT at constant 90 km/h)
- Hydraulically activated 10-disc wet clutch with self-energising function and integrated anti-hopping system
- Fully integrated constant-mesh triple shaft 6-speed gearbox: low weight and highly compact
- Wedge-shaped oil sump enables safe oil disposal, optimum intake performance of oil pump
- Intake system with long tract lengths for excellent torque.
- Extremely light magnesium clutch cover



The BMW 6-cylinder engine.

Mode functions I.

As standard, the rider of the K 1600 GT/GTL can select from three modes at any time by pressing a button on the handlebars, thereby adapting the vehicle to weather, road conditions and riding style while on the road. The modes are: *Rain*, *Road* (standard setting) and *Dynamic*. Each of these modes has specially harmonised parameters for electromotive throttle actuator response, engine characteristic curves and Dynamic Traction Control DTC (optional extra). In the K 1600 GT/GTL the ABS is not controlled by the riding mode setting.

Engine characteristic curve/accelerator grip response:

- Rain - reduced torque, gentle throttle response
- Road (standard mode) – standard torque and throttle response
- Dynamic – standard torque, direct throttle response

Cf. Diagrams p. 50 and 52



The BMW 6-cylinder engine.

Mode functions and DTC (option).

DTC (Dynamic Traction Control)

The system first used in the BMW supersports bike S 1000 RR is now also available in a touring bike - to increase active riding safety and for optimum tyre grip when accelerating, even when banking.

USPs:

- Banking sensor for optimum detection of riding condition
- Reduced uncontrolled spin of rear wheel
- Increases ride stability in the event of low friction coefficients (μ) and friction level variations
- Increased safety on road surfaces with reduced friction coefficient (μ)
- At the same time control over front wheel lift.
- DTC can be deactivated as in the S 1000 RR
- Easy to adjust during riding via riding modes

Area of use within the modes

- *Rain* for use in the rain and on soiled or greasy roads, early intervention
- *Road* for use on country roads
- *Dynamic* for an active riding style, late intervention

Standard equipment.

A wide range of world firsts.

The basic requirement for a credible product range in the area of luxurious touring is of course an extensive and innovative range of standard equipment. The K 1600 GT/GTL leaves nothing to be desired in this domain either. Alongside many entirely newly developed special equipment features which are new to motorcycle construction, a wide range of optional extras were also taken from the K 1300 GT, in some cases expanded.

New equipment features:

- Drive modes
- Xenon headlamp with light rings
- Multi-Controller to operate on-board computer, audio system (option), BMW Motorrad Navigator IV (accessory)
- 5.7-inch TFT*colour monitor in cockpit
- LED direction indicator and rear light
- Adjustable wind flaps in fairing
- Electrically adjustable windshield with memory function, anti-trap protection and anti-theft protection for BMW Motorrad Navigator IV (accessory)
- In spite of central locking (optional extra), removable panniers in body colour with rear backflow function

K 1600 GT
K 1600 GTL

* Thin Film Transistor: liquid crystal flatscreen with three transistors for every screen dot. Also known as matrix LCD.

On-board operating system.

Colour monitor and Multi-Controller as standard.

Joy is innovation.

In addition to the analog display of the speedometer and tachometer and the usual warning and indicator lamps, the instrument panel of the K 1600 models provides an information display in the form of a 5.7-inch TFT colour monitor. This type of display is entirely new in the motorcycle field and offers very good readability due to its light intensity and excellent contrast. With its high resolution, the screen enables the attractive presentation of text and graphics over several lines.

In conjunction with the standard Multi-Controller, the K 1600 GT/GTL has a unique operating system for the rider with a large selection of usual functions.

Operation of the menu roll is simple and intuitive using a menu key, rather like the current BMW on-board computer. Individual menu items are selected using the Multi-Controller by turning it up and down as well as toggling to the right.

The menus have been specially developed to meet the motorcyclist's needs: they are flat and can be used without taking one's eyes off the road - an important contribution to safety. This also applies to operation of the navigation unit (accessory): the rider does not have to lean forward to the touchscreen.

What is more, the rider can easily program a preferred function to the shortcut button for quick access, thereby further facilitating operation.

The operation of the audio system (option) has also been further facilitated and improved, for details see p. 61, audio system option.

For range of standard and optional features, see next page.

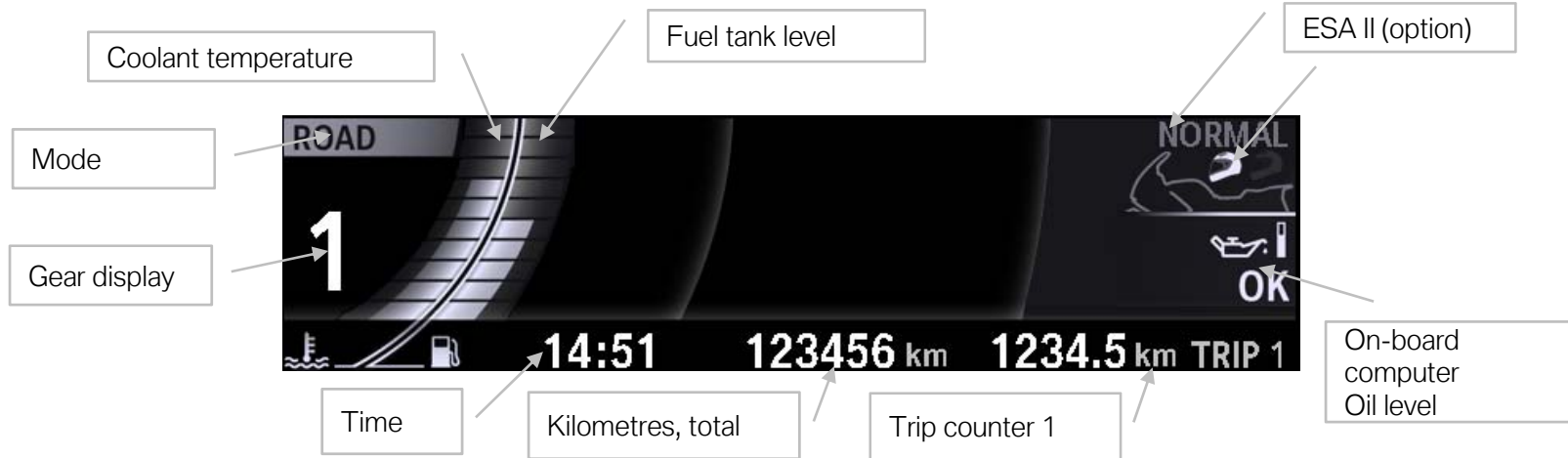
On-board operating system.

Unique operating concept.

Range of features of on-board operating menu:

- Display and selection of on-board computer functions.
(Range, 2 x average fuel consumption, average speed, outside temperature, tyre pressure (optional), timer, trip times, date, oil level)
- Control of ESA II (option)
- Operation of BMW Motorrad Navigator IV (accessory) (repeat verbal instructions, zoom in / zoom out as well as +/- functions, change page, deactivate verbal instructions, switch off screen)
- Operating of heated grips and driver seat heating (both can be regulated at five levels)
- Vehicle settings (audio (option), user [language, time format, brightness, start logo], vehicle [headlamp right/left-hand traffic, anti-theft alarm system (option) ground lighting (accessory) clock, date, DTC (option))
- Display of trip counter 1, 2 and auto (resets automatically after a certain period)
- The operation of the audio system (option) has also been further facilitated and improved, for details see p. 59, audio system option.

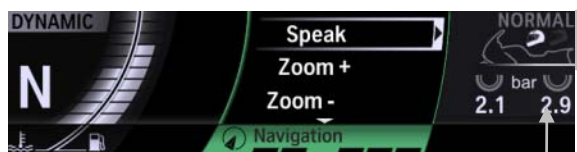
On-board operating system. Display options (abstract).



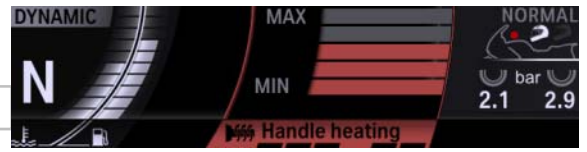
Info / on-board computer



ESA II (option)



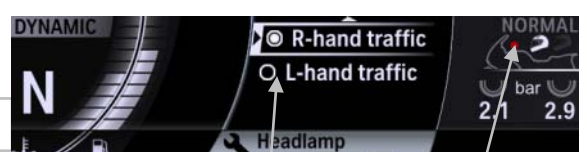
Navigation unit (accessory)



Grip heating



Vehicle settings



Headlamp left/right-hand traffic

On-board computer:
Tyre pressure (option)

Grip heating

Selection of functions, for full description see owner's manual

Adaptive Headlight (option).

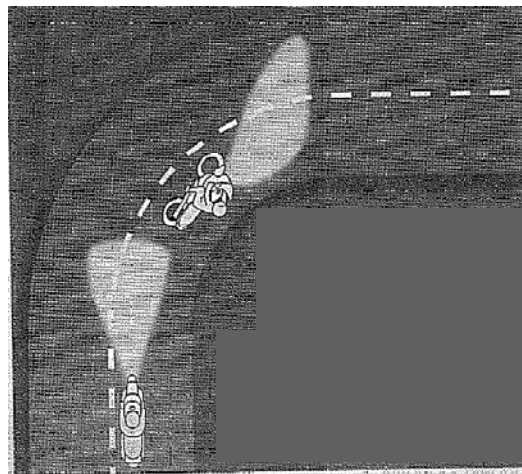
World first.

The very highest level of active safety.

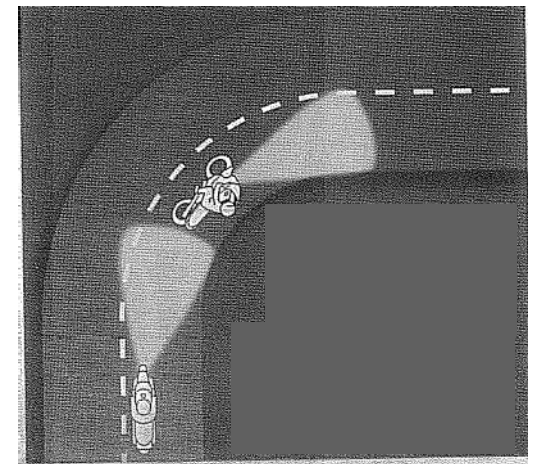
Joy is safety.

The K 1600 GT/GTL is already fitted with a xenon main headlamp as standard which has a movable projection module and reflector mirror with permanent beam throw adjustment. This means that the headlamp sheds light in the optimum pre-set area when the motorcycle is travelling straight ahead, regardless of riding and load conditions.

The Adaptive Headlight option includes a swivel-mounted reflector mirror which guides the light into the bend via actuators and banking angle detection. This results in significantly improved illumination of the road when cornering and therefore an enormous increase in active riding safety.



Conventional headlamp



Adaptive Headlight

Audio system (option).

More operating comfort and functions.

Joy is exuberance.

The audio system of the K 1600 GT/GTL is based on the newly designed system of the R 1200 RT model update from model year 2010. This means that it includes innovative functions which are unique to the motorcycle market such as operation via Multi-Controller, controlled interface for iPod and mp3/USB and Bluetooth¹⁾ connection to rider and passenger²⁾ as well as the possibility of reception for the satellite radio Sirius XM³⁾. The use of the 5.7" colour TFT monitor in the cockpit of the K 1600 GT/GTL means that both the **range of functions** and the **operating comfort** have been further **increased**:

1. Reduction to four buttons on the audio control panel (R 1200 RT: 8 buttons) since the remaining functions are operated using the Multi-Controller. These functions are those which are either frequently used and therefore have to be conveniently accessible (e.g. selecting directories or playlists) or functions which are so required so seldom that it was possible to put them in a sub-menu (e.g. Bluetooth pairing, speed-related volume control).
2. The Multi-Controller now allows operation of the main functions of the BMW Motorrad Navigator IV (accessory) which can be inserted in the instrument panel of the K 1600 GT/GTL. This means that the unit is both visually integrated as well as being protected from theft by the windshield since this is lowered when the vehicle is stationary. These functions are also available with the audio system preparation option with navigation unit preparation and the navigation unit option.

1) Not available in all markets

2) Passenger only with BMW Motorrad communication system

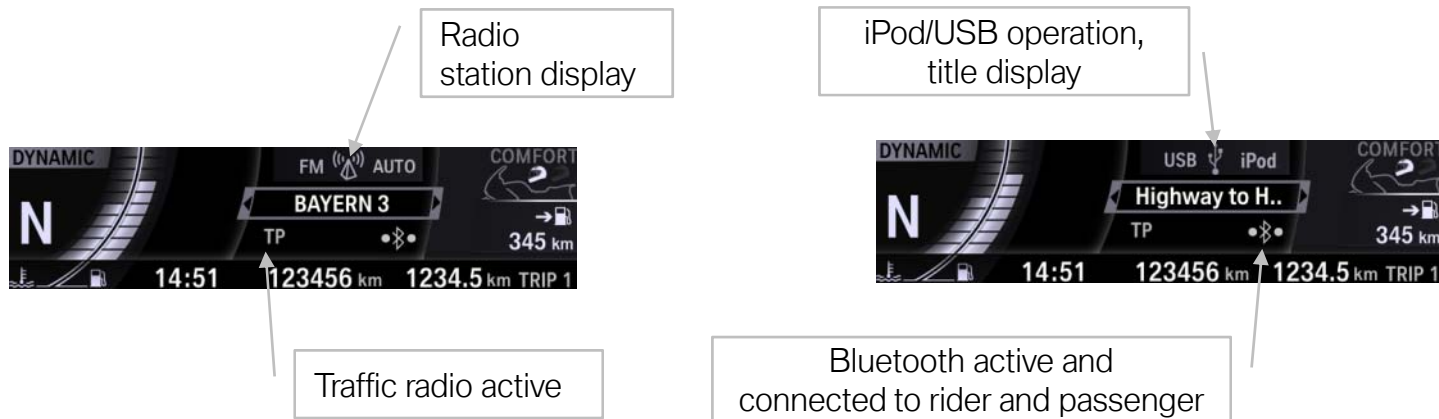
3) Only for USA and Canada

Audio system (option).

Display and operation.

Integration of the BMW Motorrad Navigator IV (accessory) in the vehicle electrical system not only permits convenient and safe operation but also data exchange (the navigation unit relays date and time to the on-board clock, when a certain residual range is reached the navigation unit suggests nearby filling stations, dynamic route calculation in the navigation unit - enabled by the TMC data of the audio system¹). What is more, the BMW Navigator IV recognizes the motorcycle's VIN for user identification after turning the ignition on and thus saves the time for keying in the PIN.

After the R 1200 RT, the BMW Motorrad now offers the world's only fully integrated solution for the satellite radio Sirius XM in another vehicle (only for USA and Canada).



Selection of functions, for full description see owner's manual

1) Only in markets where TMC is available

Technology in detail.

Body I.

Comfort:

- **Adjustable wind flaps** in the side trim ensuring effective ventilation for rider and passenger even at low speeds when folded out. Not recommended for use at high speeds. Because of the high efficiency of the wind flaps the recommended use is away from routes with high speeds, such as the highway.
- Another world first: the **panniers** appear to be integrated in the body but are still **removable, in spite of central locking** (option). This is effected mechanically through the body, i.e. no space is required in the panniers for motors, the volume is preserved and weight remains the same.
- In the electrically adjustable **windshield** there is a new **memory function with anti-trap protection** which ensures that it is lowered when the ignition is switched off. In this way, the vehicle looks more dynamic when stationary, while at the same time the **navigation unit** (accessory) is protected from **unauthorised access** since its shaft is covered ¹⁾.
- The **seat lock** is mounted on the left for **easy access**, as is the standard waterproof lockable **storage compartment**. An additional waterproof and lockable **storage compartment for audio units** on the right-hand side is available with the options audio system and preparation for audio system¹⁾. Both storage compartments are locked when the option central locking is activated.
- The **battery** is **easily accessible** by removal of the seat, e.g. for service work such as the hibernation of the vehicle.

1) In conjunction with audio system option with navigation unit preparation or audio system preparation option with navigation unit preparation

Technology in detail.

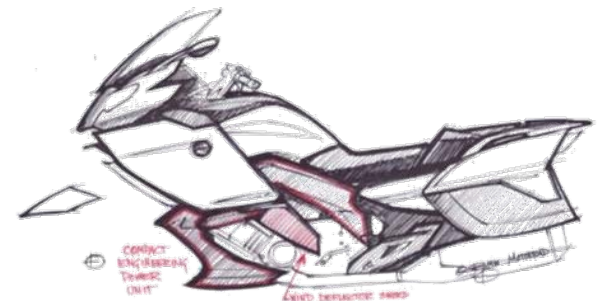
Body II.

Aerodynamics:

- The **backflow** function of the pannier airfoils **reduces soiling** of the rear section of the vehicle
- Aerodynamically favorable, the front turn signals are designed as a continuative surface of the panel.
- The rear view mirrors are designed so that the best possible field of view as well as a dynamic streamlined shape were realized.

Lightweight construction:

- In spite of the large payload capacity, an **aluminium rear frame** permits the vehicle weight to be kept to a reasonable scale.
- In the front section, a light **magnesium subframe** weighting just over 2 kg connects the headlamp, fairing and instrument panel to the frame. This support combines lightweight construction with maximum stability and minimum vibration.
- Weight has also been saved by means of the new design of the seat height adjustment function (K 1600 GT).



Technology in detail.

Chassis.

- Highest level of active safety with **BMW Integral ABS** (part integral), supported by **concentration of masses** and balanced **weight distribution** of the vehicle as a whole (52% at front, 48% at rear when vehicle unladen, K 1600 GT according to DIN).
- The **main frame** is made of light alloy in bridge-type construction over the engine. **Aluminium chill-mould** allows free design of the frame shape with a **very low weight** (just 16 kilos). At key points, especially the ergonomically important fuel tank/knee area, it is possible to keep the frame **very narrow** in spite of the space required for the intake tract. The rider will thus find an optimum fit with the vehicle.
- To do justice to the higher gross vehicle weight as compared to the K 1300 GT, a **larger brake disc** used in the rear wheel than in the K 1300 GT (diameter 320 mm rather than 294 mm).
- The brake reservoirs are rigidly linked to the handlebar fitting, due to the running smoothness of the six cylinder engine it was possible to do without a decoupling function as used in other BMW models.

Technology in detail.

Chassis, ESA II (option).

About six years after the market launch of ESA, ESA II has been one of the great innovation successes of BMW Motorrad for another year now. As of today, no competitor has an electronically adjustable chassis on this scale. The ability to adapt the chassis to varying road conditions, load states or simply the rider's mood with a simple press of a button has proved itself to be highly popular. This functionality is especially important in the touring area, where the high potential load has a significant effect on riding properties.

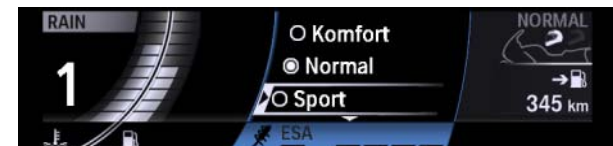
ESA II offers the rider electric damper adjustment of both spring struts and electro-hydraulic adjustment of the spring preload and spring rate of the rear spring strut. This enables simple and fast adjustment to the weight of the rider and load to an extent hitherto unknown. The result is a new dimension of ride stability and outstanding responsiveness in all riding and load states.

In the K 1600 GT/GTL, the function is operated using the Multi-Controller.



Setting adjustment load
(only at stop)

Setting damping
(also possible while driving)



Technology in detail.

Chassis, ESA II (option).

ESA II offers the rider key functional benefits:

- ✓ The normal static setting (defined by spring preload in ESA I or conventional spring struts) is maintained much more effectively in all modes even dynamically, i.e. during travel.
- ✓ Compensation of riding and load states, i.e. optimum ride geometry at all times.
- ✓ Clear change in character of the vehicle according to the selected setting: comfortable without sagging or rocking and sporty without excessive hardness while at the same time more agile.
- ✓ Depending on the spring rate selected, the wheel load of the front wheel is maintained since the rear stays at a stable level. Ride stability and steering precision are fully preserved, high level of brake stability.
- ✓ Effectively harmonised damping and spring rate in all setting ranges (i.e. no inadequate or excessive damping).
- ✓ It is as if the rider did not notice how much weight the bike is actually carrying.

Technology in detail.

Electrical system.

Rear light and direction indicators in LED technology.
LED technology is highly impressive both visually and technically:

- The white clear glass look comes over as technical, modern and dynamic.
- The use of the illuminated strips in the rear light instead of individual diodes is unique within the motorcycle market.
- The use of LED technology instead of conventional filament bulbs ensures an error-free operation with a significantly prolonged life span.



Ex-factory options in detail.

Central locking.

The central locking system locks the pannier, storage compartment, audio compartment¹⁾ and topcase²⁾ at the same time at the press of a button. It is convenient to operate both using the remote control and using the switch on the right-hand end of the handlebars. The panniers remain removable, though of course only when unlocked. The servomotors for the locking system are located in the body and there is a mechanical locking mechanism for the pannier locks which uses a bolt.

The radio remote control has been redesigned as compared to the existing alarm system remote. It is now closer at hand and the buttons are larger.

The central locking enables the use of the ground lighting (cf. ground lighting accessory).

Due to its constructional features and space provided by the K 1600 GT/GTL, the central locking option is only available in conjunction with the anti-theft alarm (DWA/ATA) in a shared casing. The alarm system is still available on its own as an accessory.



1) Standard in K 1600 GTL, for K 1600 GT in conjunction with option audio system with navigation unit preparation, option audio system preparation and navigation unit preparation or option preparation navigation unit

2) Standard for K 1600 GTL, accessory for K 1600 GT

Ex-factory options in detail.

Seats.

Rider's seat, low (option K 1600 GT)

For the K 1600 GT, the usual lower rider seat section which can be used in two positions (800/780 mm) can be ordered as an option without additional charge.



Seat, high (option K 1600 GTL)

The K 1600 GTL is supplied as standard with the lowest possible seat height. Without additional charge, a single-section seat can be ordered with a 30 mm higher rider seat section.

Due to the other ergonomic differences between the two vehicles, the above options cannot be ordered for the other model in each case. The accessory program meets any additional individualisation demands.