



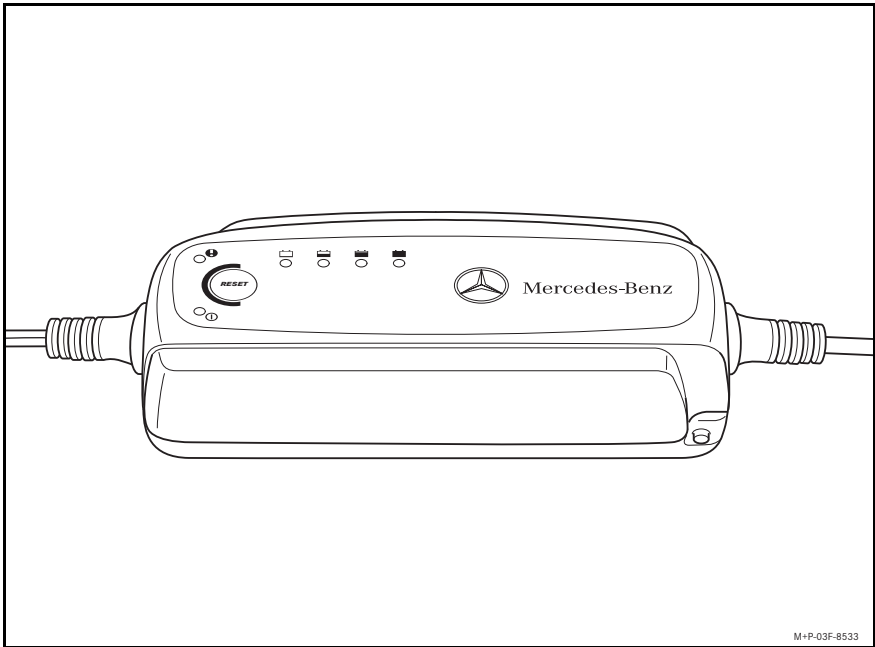
Mercedes-Benz

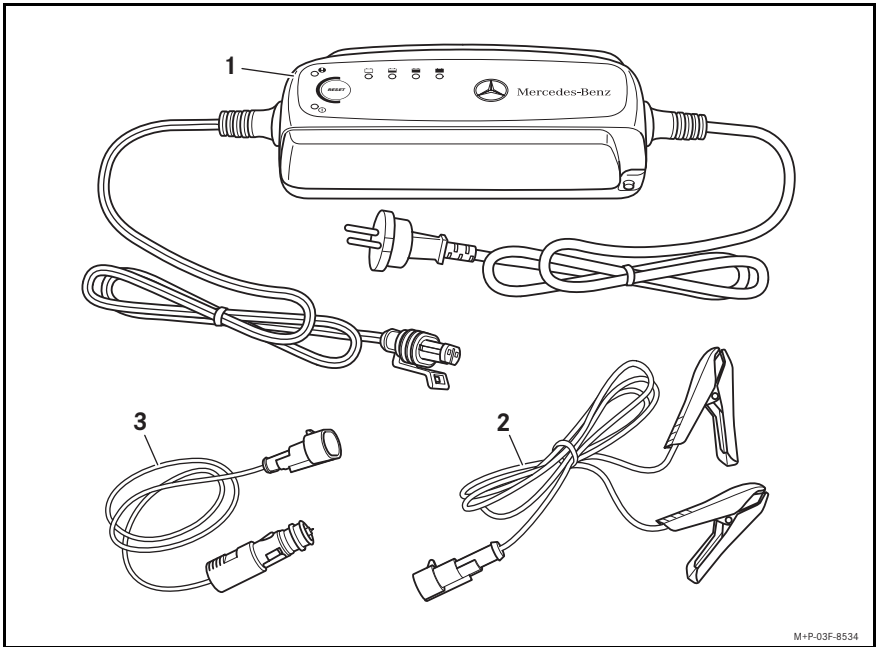
(CN) 蓄电池充电器

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(GB) Battery charger

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M+P-03F-8534

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2014/08
03F069-14



适用性

有关适用车型的信息，请咨询梅赛德斯-奔驰授权服务中心。

零部件

- (1) 蓄电池充电器¹
- (2) 带夹子的充电电缆
- (3) 带 12 伏插头的充电电缆

重要安全注意事项



警告

蓄电池酸液具有腐蚀性。存在伤害风险！

应避免皮肤、眼睛或衣物接触蓄电池酸液。切勿吸入蓄电池挥发气体。请勿俯身在蓄电池上方。将蓄电池放在儿童接触不到的地方。如果被酸液溅到，应立即用大量清水冲洗。如有必要，请尽快就医。



警告

蓄电池充电时会产生氢气。如果出现短路或产生火花，则可能会引燃氢气。存在爆炸风险！

- 请勿在蓄电池上放置金属物品或工具。
- 请务必按规定的顺序连接和断开蓄电池充电器。
- 请勿在发动机运行时连接或断开蓄电池充电器。



警告

在充电过程中，蓄电池产生的爆炸性混合气体会泄漏。存在爆炸风险！

严禁点火、使用明火、产生火花和吸烟。请在通风良好的区域为蓄电池充电。请勿俯身在蓄电池上方。



警告

电量耗尽的蓄电池会在温度达到冰点时冻结。如果之后为蓄电池充电，则蓄电池挥发气体会泄漏。存在爆炸风险！

为蓄电池充电或跨接起动前，务必先解冻蓄电池。

在环境温度较低时，如果仪表盘上的指示灯 / 警告灯未亮起，极可能表明电量耗尽的蓄电池已被冻结。在这种情况下，请勿为蓄电池充电。请到具有资质的专业服务中心检查解冻的蓄电池。梅赛德斯-奔驰建议您到梅赛德斯-奔驰授权服务中心进行此项工作。

请仅通过跨接起动连接点或车上指定的 12 伏专用插座为蓄电池充电。有关跨接起动连接点的信息，请参见车辆用户手册。如果您的车辆不带跨接起动连接点或未配备 12 伏专用插座，请咨询具有资质的专业服务中心。梅赛德斯-奔驰建议您到梅赛德斯-奔驰授权服务中心进行此项工作。

循环充电时，切勿遮盖蓄电池充电器或将其放置在蓄电池上。

使用充电电缆时，切勿使其接触到发热的或带尖锐边角的部件。



爆炸风险



处理蓄电池时，严禁点火、使用明火和吸烟。避免产生火花。



佩戴护目镜



蓄电池酸液具有腐蚀性。应避免皮肤、眼睛或衣物接触蓄电池酸液。请穿上合适的防护服，特别是要佩戴防护手套、防护围裙和防护面具。

如果被酸液溅到，应立即用大量清水冲洗。如有必要，请尽快就医。



远离儿童。




请遵守车辆用户手册。

一般说明

蓄电池充电器是经梅赛德斯-奔驰股份公司测试并指定的专用设备。当通风状况良好时，还可通过此设备为车载蓄电池充电。

如果在使用过程中遇到任何问题，请到具有资质的专业服务中心。梅赛德斯-奔驰建议您到梅赛德斯-奔驰授权服务中心进行此项工作。

梅赛德斯-奔驰保留对本安装说明图示中相关技术数据进行更改的权利。

 此符号表示车辆用户手册中的信息。请将其用作参考。

1. 蓄电池充电器是否配备适用的电源插头因国家而异。相关信息，请咨询梅赛德斯-奔驰授权服务中心。

指定用途

仅使用梅赛德斯-奔驰原厂零部件或具有同等质量的零部件。请仅使用经认可适用于您车型的蓄电池。

蓄电池充电器可用于为以下蓄电池充电并保持其电量：

- 12 伏铅酸蓄电池（14 - 110 安时，涓流充电时不超过 160 安时）和
- 锂电池（5 - 60 安时，涓流充电时不超过 120 安时）。

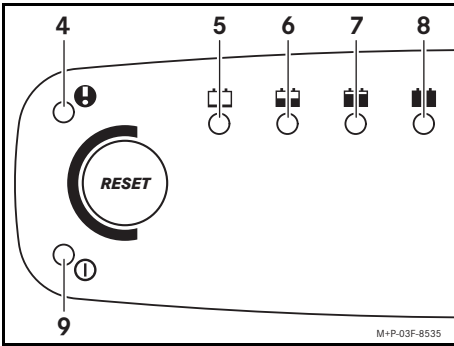
不得将其用于其他用途。因使用不当而造成的损坏，由使用者自行承担。责任。

仅可通过电源插座将蓄电池充电器连接至供电系统。车辆可能配备有 230 伏插座，不得将其用于连接蓄电池充电器。

过热保护

蓄电池充电器具有过热保护功能。当环境温度升高时，其输出功率会降低。

显示



指示灯

含义

- | | |
|----|--|
| 4 | 故障，请参见“故障说明” |
| 5 | 蓄电池容量为空 |
| 6 | 蓄电池容量为 50% |
| 7 | 蓄电池容量为 80%
可启动发动机。 |
| 8 | 蓄电池容量为 100%
蓄电池充电器处于“涓流充电”状态。 |
| 9 | 就绪状态 |
| 亮起 | 蓄电池充电器已连接至电源插座。 |
| 9 | 节能模式 |
| 闪烁 | 蓄电池充电器与蓄电池断开 2 分钟。这可能是由于连接的锂电池未启用，请参见“故障说明”。 |

故障说明

如果“故障”指示灯亮起，说明蓄电池充电器可能连接错误。请拔出电源插头并重新连接蓄电池充电器。

充电中断

如果“故障”指示灯亮起且充电过程中断，请按下 RESET（复位）按钮。蓄电池充电器将重启。

如果“故障”指示灯与以下指示灯一同亮起：

- “蓄电池容量为 50%”，说明蓄电池出现故障，必须予以更换。
- “蓄电池容量为 80%”，说明蓄电池无法保持电量，必须予以更换。
- “蓄电池容量为空”，说明无法为蓄电池充电。请咨询具有资质的专业服务中心。

注意事项

如需充电，必须启用锂电池。请在锂电池连接的情况下按住 RESET（复位）按钮至少 10 秒钟，直至指示灯（5-8）中的其中一个亮起。

如果“故障”指示灯持续亮起，请咨询具有资质的专业服务中心。

如果充电 50 小时 [或 24 小时（适用于锂电池）] 后“蓄电池容量为 100%”（涓流充电）指示灯未亮起，说明出现故障。请咨询具有资质的专业服务中心。

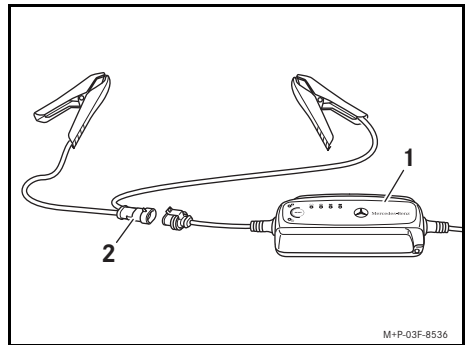
连接蓄电池充电器并开始充电

将蓄电池充电器连接至跨接起动连接点

1. 开启发动机罩。 [图]
2. 将充电电缆（2）的红色夹子连接至车辆的正极接线柱。 [图]
3. 将充电电缆（2）的黑色夹子连接至车辆的接地点。 [图]

注意事项

有关正极接线柱和接地点安装位置的信息，请参见车辆用户手册中的“跨接起动”部分。



4. 按图示连接充电电缆（2）和蓄电池充电器（1）。

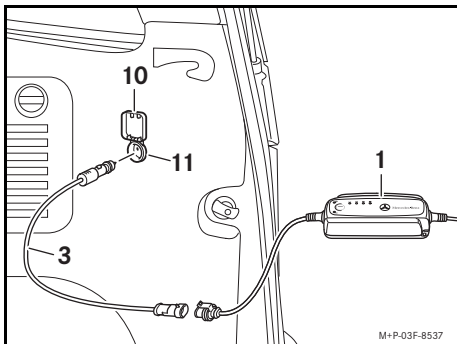
将蓄电池充电器连接至 12 伏插座


M 级、W 163 和梅赛德斯 - 奔驰 SLR McLaren、C 199 车辆的行李箱内配备有 12 伏专用插座，可用于为蓄电池充电。

重要！

切勿将蓄电池充电器连接至点烟器或车上串联的 12 伏插座。

如果车辆未配备 12 伏专用插座，可到具有资质的专业服务中心加装插座。梅赛德斯 - 奔驰建议您到梅赛德斯 - 奔驰授权服务中心进行此项工作。



1. 开启行李箱。 
2. 向上折叠护盖 (10) 并将充电电缆 (3) 的 12 伏插头插入 12 伏插座 (11)。
3. 按图示连接充电电缆 (3) 和蓄电池充电器 (1)。

开始充电

重要！

将电源插头插入电源插座前，请确保

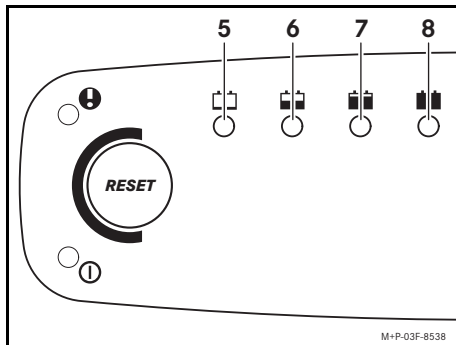
- 所用充电电缆未损坏且
- 蓄电池充电器已连接。

请立即更换损坏的充电电缆。

1. 将蓄电池充电器 (1) 的电源插头插入电源插座。

注意事项

12 伏铅酸蓄电池会自动开始充电。



2. **锂电池：**按住 RESET (复位) 按钮至少 10 秒钟，直至指示灯 (5-8) 中的其中一个亮起。

断开蓄电池充电器

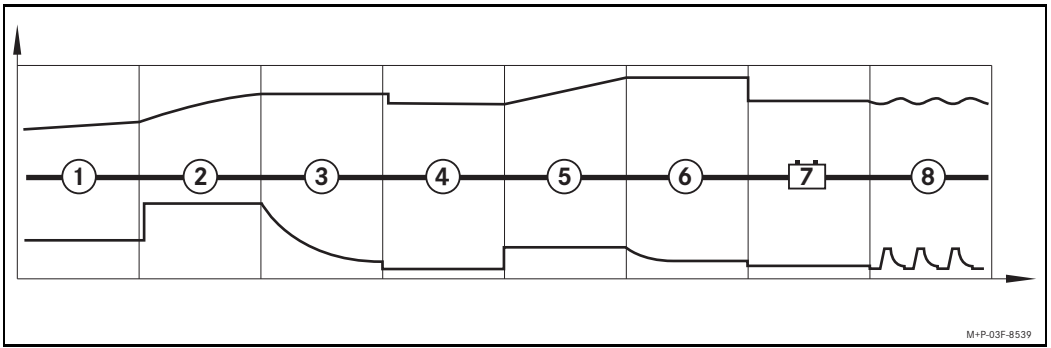
可随时中断充电过程。必须按照与连接相反的顺序断开蓄电池充电器。

充电循环

蓄电池充电器可进行全自动循环充电，共分为三个阶段。蓄电池充电器最初为蓄电池提供 5 安的最大电流且蓄电池电压升至 14.4 伏。此时，蓄电池充电器切换至恒定电压且为蓄电池提供的电流逐渐减少。

当电流达到 0.4 安时，蓄电池充电器切换至脉冲涓流充电。如果蓄电池电量充满且两极电压降至低于 12.7 伏，则重新开始循环充电。

蓄电池充电器可在“涓流充电”状态下保持连接数月。



充电循环

“充电循环”图片说明

(1) 初步检查

蓄电池充电器检查所连接蓄电池的电量，以防损坏的蓄电池开始充电。

(2) 主要环节

以最大电流开始充电，直至蓄电池容量达到约 80%。

(3) 吸收

当电流逐渐减弱时，为蓄电池持续充电，直至其容量达到 100%。

(4) 分析

蓄电池充电器检查所连接蓄电池能否保持电量。必须更换无法保持电量的蓄电池，请参见“故障说明”。

(5) 结束

充电结束。

(6) 最大化

以最大电压结束充电，直至蓄电池容量达到 100%。

(7+8) 涓流充电

(7) 蓄电池电压保持在最大值，以便以恒定电压充电。

(8) 蓄电池容量保持在 95-100%。蓄电池充电器监测蓄电池电压，并在必要时提供电荷脉冲，以保持电量。

充电时长

12 伏铅酸蓄电池：

下表指明自蓄电池容量为空至容量达到约 80% 所需的充电时长。

蓄电池型号 (安时)	时长 (小时)
20	4
60	12
110	26

锂电池

下表指明自蓄电池容量为空至容量达到约 90% 所需的充电时长。

蓄电池型号 (安时)	时长 (小时)
8	2
20	5
60	16

注意事项

请注意，环境温度越低，充电时间可能越长。

保养

蓄电池充电器无需保养。

清洁

清洁前，请将电源插头从电源插座中拔出。可使用湿布和中性清洁剂清洁蓄电池充电器外壳。

维修

仅可到具有资质的专业服务中心维修蓄电池充电器。梅赛德斯 - 奔驰建议您到梅赛德斯 - 奔驰授权服务中心进行此项工作。

免责声明

根据有效的产品责任法，设备制造商对由以下原因造成的设备损坏或通过设备所造成的损坏不承担任何责任：

- 操作不当；
- 未遵守用户手册；
- 由第三方或未经授权的人员进行维修；
- 使用非原装零部件进行安装和更换；
- 未用于指定用途；
- 因不符合电气标准所导致的电气系统故障。

技术数据

型号:	1049
电压:	220 - 240 伏 (交流) 50 - 60 赫兹
充电电压:	14.4 伏
充电电流:	5 安 (最大)
反向电流:	< 1 安时 / 月
脉动电压:	< 4%
环境温度:	-20 ° C 至 +50 ° C
充电循环:	全自动脉冲涓流充电
蓄电池型号:	所有 12 伏铅酸蓄电池 (WET、MF、Ca/Ca、AGM 和 GEL) 以及 12 伏磷酸铁锂蓄电池
蓄电池容量	
• 12 伏铅酸蓄电池	14 - 110 安时, 涓流充电时不超过 160 安时
• 锂电池	5 - 60 安时, 涓流充电时不超过 120 安时
尺寸:	168 x 65 x 38 毫米
防护等级:	IP 65 (防水防尘)
质量:	0.78 千克



Validity

For information on whether or not these installation instructions are valid for your vehicle, please consult your Mercedes-Benz Service Centre.

Components

- (1) Battery charger¹
- (2) Charging cable with clamps
- (3) Charging cable with 12 V plug

Important safety notes



WARNING

Battery acid is caustic. There is a risk of injury.

Avoid contact with the skin, eyes or clothing. Do not inhale battery gases. Do not lean over the battery. Keep batteries out of the reach of children. Immediately rinse battery acid thoroughly with plenty of clean water and seek medical attention immediately.



WARNING

A battery generates hydrogen gas when it is being charged. In the case of a short circuit or a spark, the hydrogen gas could ignite. There is a risk of explosion.

- Never place metal objects or tools on a battery.
- Make sure you connect and disconnect the battery charger in the specified order.
- Do not connect or disconnect the battery charger when the engine is running.



WARNING

While the battery is charging, a highly flammable gas mixture can escape. There is a risk of explosion.

You must avoid fire, naked flames, creating sparks and smoking. Make sure there is adequate ventilation when charging the battery. Do not lean over the battery.



WARNING

A discharged battery can freeze at temperatures around freezing point. If you then charge the battery, battery gas can escape. There is a risk of explosion.

Always allow a frozen battery to thaw before charging or jump-starting.

If the indicator/warning lamps do not light up at low temperatures, it is very likely that the discharged battery is frozen. In this case do not charge the battery. Have the thawed battery checked at a qualified specialist workshop. Mercedes-Benz recommends that you use a Mercedes-Benz Service Centre.

Only charge the battery using the jump-starting connection point or the appropriate 12 V socket in your vehicle. Information on the jump-starting connection point can be found in your vehicle Owner's Manual. If your vehicle is not equipped with a jump-starting connection point or a special 12 V socket, contact a qualified specialist workshop. Mercedes-Benz recommends that you use a Mercedes-Benz Service Centre.

Do not cover the battery charger while charging the battery and do not place the charger on the battery.

Make sure that the charging cable used does not come into contact with hot objects or objects with sharp edges.



Risk of explosion



Fire, naked flames and smoking are prohibited when handling the battery. Avoid creating sparks.



Wear eye protection



Battery acid is caustic. Avoid contact with the skin, eyes or clothing. Wear suitable protective clothing, in particular gloves, an apron and a face mask.

Immediately rinse acid splashes off with clean water. Consult a doctor if necessary.



Keep children away.



Observe the vehicle Owner's Manual.


General notes

The battery charger is a device which has been specially tested and adapted by Mercedes-Benz AG. You can use the device to charge the vehicle battery while it is still fitted in the vehicle, provided that there is adequate ventilation.

If difficulties arise during operation, contact a qualified specialist workshop. Mercedes-Benz recommends that you use a Mercedes-Benz Service Centre.

1. The battery charger is fitted with an appropriate plug for each country. Information can be obtained from your Mercedes-Benz Service Centre.

The manufacturer reserves the right to change any technical details from those shown in the illustrations contained in these installation instructions.

 This symbol refers you to information in the vehicle Owner's Manual. Please keep this handy for reference.

Intended usage

Only use genuine Mercedes-Benz parts or parts of equal quality. Only use batteries that have been specifically approved for your vehicle.

The battery charger is intended for charging and trickle charging all:

- 12 V lead acid batteries between 14 and 110 Ah (up to 160 Ah for trickle charging) and
- lithium batteries between 5 And 60 Ah (up to 120 Ah for trickle charging).

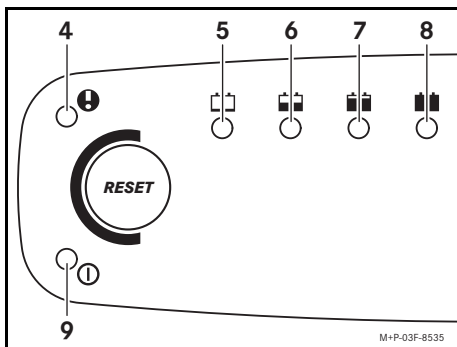
Do not use it for other purposes. The user bears sole responsibility for damage caused through incorrect use.

The battery charger may only be connected to the mains supply via a mains socket. If there is a 230 V socket in the vehicle, it must not be used to connect the battery charger.

Protection against overheating

The battery charger is equipped with protection against overheating. At high outside temperatures, the power output is reduced.

Displays



Display	Meaning
4	Fault, see „Fault Description“
5	Battery discharged
6	50 % of battery capacity
7	80 % of battery capacity
9	Engine start is possible.

Display	Meaning
8	100 % battery capacity The battery charger is in „trickle charge“ status.
9	Operational readiness
Lights up	The battery charger is connected to a mains socket.
9	Energy-saving mode
Flashing	The battery charger has not been connected to a battery for 2 minutes. The connected lithium battery might not be activated; see „Fault description“.

Fault description

If the „Fault“ display lights up, the battery charger might be incorrectly connected. Unplug the device from the mains power supply and reconnect the battery charger.

Charging process interrupted

If the „Fault“ display lights up and the charge process is interrupted, press the RESET button. The battery charger is restarted.

If the „Fault“ display is still lit up together with:

- the „50 % of battery capacity“ display, the battery is faulty and needs to be replaced.
- the „80 % of battery capacity“ display, the battery cannot hold the charge. The battery must be replaced.
- the „Battery discharged“ display, it is not possible to charge the battery. Contact a qualified specialist workshop.

Note




Lithium batteries must be activated for charging if necessary. When the lithium battery is connected, press the RESET button for at least ten seconds until one of the indicator lamps (5-8) lights up.

If the „Fault“ display continues to light up, please contact a qualified specialist workshop.

If the „100 % battery capacity“ (trickle charge) display does not light up after a charging time of 50 h (or 24 h for lithium batteries), there is a fault. Contact a qualified specialist workshop.

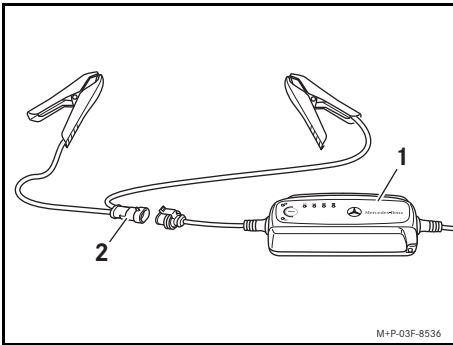
Connecting the battery charger and starting the charging process

Connecting the battery charger to the jump-starting connection point

1. Open the bonnet. 
2. Connect the red clamp of charging cable (2) to the vehicle's positive terminal. 
3. Connect the black clamp of charging cable (2) to the vehicle's earth point. 

Note

Information on the location of the positive terminal and the earth point can be found in the „Jump-starting“ section of your vehicle Owner's Manual.



4. Connect charging cable (2) to battery charger (1) as shown.

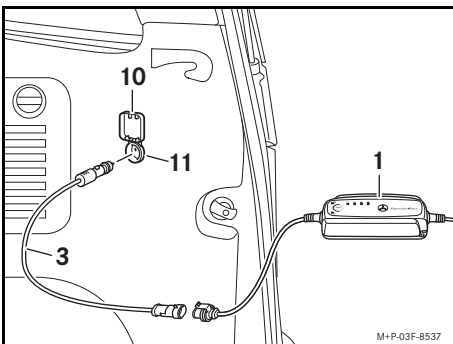
Connecting the battery charger to a 12 V socket

M-Class (W 163) and Mercedes-Benz SLR McLaren (C 199) vehicles are equipped with a special 12 V socket in the boot which can be used to charge the battery.

Important

The battery charger must not be connected to the cigarette lighter or the standard 12 V socket in the vehicle.

Vehicles that are not equipped with a special 12 V socket can have one retrofitted at a qualified specialist workshop. Mercedes-Benz recommends that you use a Mercedes-Benz Service Centre.



1. Open the boot.
2. Fold cover (10) upwards and insert 12 V plug of charging cable (3) into 12 V socket (11).
3. Connect charging cable (3) to battery charger (1) as shown.

Starting the charging process

Important

Before inserting the mains plug into a mains socket, ensure that:

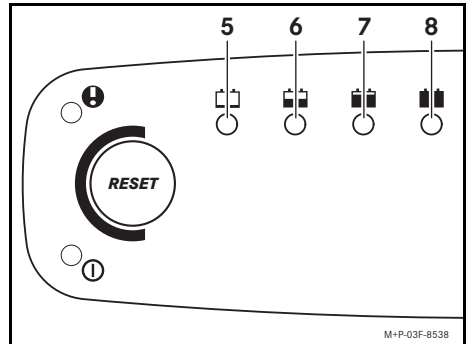
- the charging cable is not damaged and
- the battery charger is connected.

Replace damaged charging cables immediately.

1. Insert the mains plug of battery charger (1) into a mains socket.

Note

With 12 V lead acid batteries, the charging process starts automatically.



2. **Lithium batteries:** press the RESET button for at least ten seconds until one of the indicator lamps (5-8) lights up.

Disconnecting the battery charger

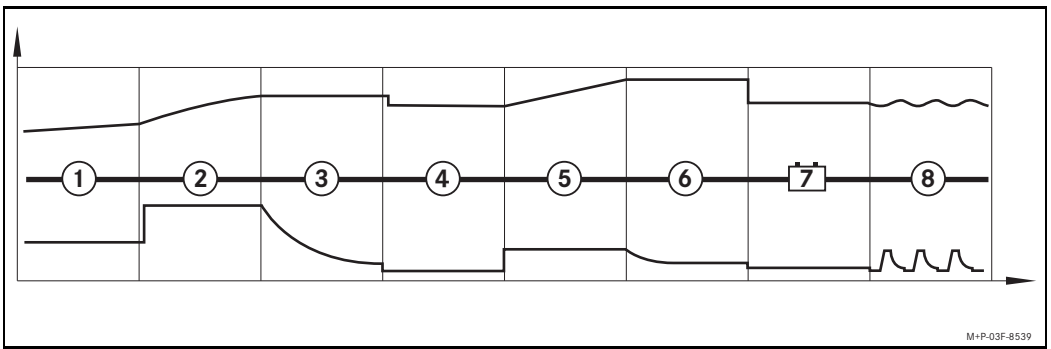
The charging process can be interrupted at any time. You must disconnect the battery charger in the reverse order to that used for connecting it.

Charging cycle

The battery charger has a three-stage, fully automatic charging cycle. Initially the battery charger supplies the maximum current (5 A) to the battery and the battery voltage rises to 14.4 V. At this point, the battery charger switches to constant voltage and the electricity flow to the battery is reduced step by step.

When the current reaches 0.4 A, the battery charger switches to pulse trickle charge. If the battery is subject to load and the voltage at the terminals drops to below 12.7 V, the charging cycle starts again.

The battery charger can remain connected for months in „trickle charge“ mode.



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Charging cycle

Legend for the „Charging cycle“ illustration

(1) Initial test

The battery charger tests the chargeability of the connected battery. This prevents a charging cycle being started on a faulty battery.

(2) Main part

The charging process is carried out with a maximum current until 80 % of battery capacity is reached.

(3) Absorption

The charging process is continued with decreasing current until 100 % battery capacity is reached.

(4) Analysis

The battery charger tests whether the connected battery can hold the charge. Batteries that cannot hold their charge need to be replaced; see „Fault description“.

(5) End

The charging process is concluded.

(6) Maximisation

The charging process is concluded with maximum voltage up to 100 % battery capacity.

(7+8) Trickle charge

(7) The battery voltage is kept at its maximum level by being charged at a constant voltage.

(8) The battery capacity is maintained at 95-100 %. The battery charger monitors the battery voltage and gives a charging impulse whenever necessary to maintain the charge.

Duration of the charging process

12 V lead acid batteries:

The table shows the duration of the charging process for discharged batteries up to approx. 80 % of the battery capacity.

Battery size (Ah)	Duration (h)
20	4
60	12
110	26

Lithium batteries

The table shows the duration of the charging process for discharged batteries up to approx. 90 % of the battery capacity.

Battery size (Ah)	Duration (h)
8	2
20	5
60	16

Note

Please note that charge times can be longer at low temperatures.

Maintenance

The battery charger is maintenance-free.

Cleaning

Remove the mains plug from the mains socket before cleaning. Clean the battery charger housing with a damp cloth and mild detergent.

Repair

Repairs to the battery charger may only be carried out by a qualified specialist workshop. Mercedes-Benz recommends that you use a Mercedes-Benz Service Centre.

Liability

Under current product liability legislation, the manufacturer of this appliance is not responsible for damage caused to this appliance or by this appliance in the case of:

- improper handling
- failure to observe the operating instructions
- repairs carried out by a third party or unauthorised personnel
- fitting or replacement of non-genuine spare parts
- inappropriate use
- power failure from the power supply, failure to observe electrical requirements.

Technical data

Model number:	1049
Voltage:	220 – 240 V AC 50 – 60 Hz
Charge voltage:	14.4 V
Charge current:	5 A maximum
Return current:	< 1 Ah/month
Ripple:	< 4 %
Outside temperature:	-20 °C to +50 °C
Charging cycle:	fully automatic with pulse trickle charge
Battery type:	all 12 V lead acid batteries (WET, MF, Ca/Ca, AGM and GEL) and 12 V LiFePO4 batteries
Battery capacity of:	
• 12 V lead acid batteries:	14 – 110 Ah, up to 160 Ah for trickle charging
• Lithium batteries:	5 – 60 Ah, up to 120 Ah for trickle charging
Dimensions:	168 x 65 x 38 mm
Protection type:	IP 65 (dust-tight, impermeable to jet water)
Weight:	0.78 kg