

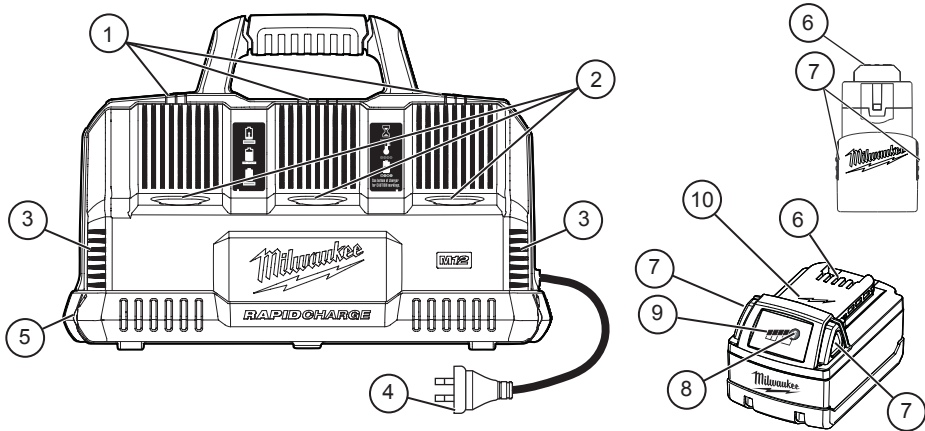
Milwaukee[®]

Nothing but **HEAVY DUTY**[®].



M12-18C3

User Manual
操作指南



- 1. Light indicators
- 2. Bays (12V on front, 18V on back)
- 3. Vents
- 4. Cord with 2-pin plug
- 5. Wall mount guides
- 6. Battery Contacts
- 7. Release Buttons
- 8. Fuel Gauge button
- 9. Fuel Gauge
- 10. Rapid charge-capable pack indicator

AC input	220 - 240 V
Max AC input	2.2 A
DC output	12/18 V
Max DC output	12 V - 4.5 A, 18 V - 6.0 A

⚠ WARNING! Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

SAFETY WARNINGS

Do not dispose of used battery packs in the household refuse or by burning them. Milwaukee Distributors offer to retrieve old batteries to protect our environment.

Only the following battery packs can be charged with this charger:

Voltage	Battery	Rating (of storage battery)	No. of battery cells
12 V	M12 B	≤ 1.5 Ah	3
12 V	M12 B2	≤ 2.0 Ah	3
12 V	M12 BX	≤ 3.0 Ah	2 x 3
12 V	M12 B3	≤ 3.0 Ah	3
12 V	M12 B4	≤ 4.0 Ah	2 x 3
12 V	M12 B6	≤ 6.0 Ah	2 x 3
18 V	M18 B	≤ 1.5 Ah	5
18 V	M18 B2	≤ 2.0 Ah	5
18 V	M18 BX	≤ 3.0 Ah	2 x 5
18 V	M18 B4	≤ 4.0 Ah	2 x 5
18 V	M18 B5	≤ 5.0 Ah	2 x 5
18 V	M18 B6	≤ 6.0 Ah	2 x 5
18 V	M18 B9	≤ 9.0 Ah	3 x 5

Do not try to charge non-rechargeable batteries with this charger.

Do not store the battery pack together with metal objects (short circuit risk).

No metal parts must be allowed to enter the battery section of the charger (short circuit risk).

Never break open battery packs or chargers and store only in dry rooms. Keep dry at all times.

The battery clamps of the charger are fed by the mains supply. Do not touch the tool with conducting objects.

Never charge a damaged battery pack. Replace with a new one.

Before use check machine, cable, and plug for any damages or material fatigue. Repairs should only be carried out by

authorised service centres.

The product is not intended to be used or cleaned by persons with reduced physical, sensory or mental capabilities, or lack of experience or knowledge, unless they have been given instructions concerning the safe use of the product by a person legally responsible for their safety. They should be supervised while using the product.

Children shall not use, clean or play with the product, which, when not in use, should be secured out of their reach.

The product for indoor use only. Never expose the product to rain.

SPECIFIED CONDITIONS OF USE

The charger charges 12V and 18V Milwaukee Li-Ion battery packs.

Do not use this product in any other way as stated for normal use.

MAINS CONNECTION

Connect only to single-phase AC current and only to the system voltage indicated on the rating plate. It is also possible to connect to sockets without an earthing contact as the design conforms to Safety Class II.

LI-ION BATTERIES

The rechargeable batteries are partially charged. The LED on the battery indicates the state of charge. If it is not used for long periods, the rechargeable battery will switch to the nonoperative state.

When fully discharged the rechargeable battery switches off automatically (depth discharge not possible).

Under extreme circumstances, the internal temperature of the battery could become too high. If this happens, the battery will shut down.

Place the battery on the charger to charge and reset it.

The state of charge can be read by pressing the button on the rechargeable battery. The battery can be left in the electric tool while the reading is taken but it must be switched off at least one minute beforehand (otherwise the display will be inaccurate). The number of LEDs illuminated indicates the state of charge. A flashing LED indicates a max. power reserve of 10%.

As a general principle, if the electric tool should fail to work after inserting the rechargeable battery, then the battery should be plugged into the charger. The displays on the battery and charger will then provide information about the condition of the battery.

In low temperatures work may continue at reduced output.

FUEL GAUGE

Use the fuel gauge to determine the battery pack's remaining run time. Press the fuel gauge button to display the lights. The fuel gauge will light up for 2-3 seconds. When less than 10% of charge is left, 1 light on the fuel gauge will flash slowly.

NOTE: If the fuel gauge doesn't appear to be working, place the battery pack on the charger and charge as needed.

Compared to NiCd battery pack types, MILWAUKEE® Lithium-Ion battery packs deliver fade-free power for their entire run

time. The tool will not experience a slow, gradual loss of power as you work. To signal the end of discharge, 1 light on the fuel gauge will flash quickly for 2-3 seconds and the tool will not run. Charge the battery pack.

NOTE: Immediately after using the battery pack, the Fuel Gauge may display a lower charge than it will if checked a few minutes later. The battery cells "recover" some of their charge after resting.

BATTERY PACK PROTECTION

In extremely high torque, binding, stalling and short circuit situations that cause high current draw, the tool will vibrate for about 5 seconds, the fuel gauge will flash, and then the tool will turn OFF.

To reset, release the trigger.

Under extreme circumstances, the internal temperature of the battery pack could raise too much. If this happens, the fuel gauge will flash until the battery pack cooled down. After the lights go off, the work may continue.




Place the battery on the charger to charge and reset it.




Fuel Gauge Lights	Diagnosis	Solution
Lights 1 - 4 Solid	Remaining run time	Continue working
1 Light, flashing slowly	Less than 10% run time left	Prepare to charge battery pack
1 Light, flashing quickly	End of discharge	Charge battery pack
Lights 1-4, flashing quickly	Current draw too high	Release trigger and restart, reduce pressure
Lights 1 and 3 / 2 and 4, flashing alternately	Battery temperature too high	Release trigger and allow battery to cool

COLD WEATHER OPERATION

MILWAUKEE® Lithium-Ion battery packs are designed to operate in temperatures below freezing. When the battery pack is too cold, it may need to warm up before normal use. Put the battery on a tool and use the tool in a light application. It may "buzz" for a short time until it warms up. When the buzzing stops, use the tool normally.

LIGHT INDICATORS

	Continuous red	Charging
	Slow flashing green	Approaching full charge
	Continuous green	Charging complete

	Fast flashing red	Battery is too hot/cold - charging will begin when battery reaches correct charging temperature
	Slow flashing red	Battery charge is pending - charging will begin when the first pack is fully charged
	Flashing red/green	Damaged or faulty battery pack

OPERATION

After inserting the battery into the reception of the charger the battery will automatically be charged (red control lamp is illuminated continuously).

Once the battery is fully charged, the LED on the charger changes from red to green.

Remove the battery pack from the tool for charging when convenient for you and your job. Milwaukee batteries do not develop a "memory" when charged after only a partial discharge. It is not necessary to run down the battery pack before placing it on the charger.

As a general practice, it is best to unplug battery chargers and remove batteries when not in use. No battery pack damage will occur, however, if the charger and battery pack are left plugged in.

If both LEDs flash alternately then the rechargeable battery is either not fully pushed in or there is a fault with the battery or charger. Take the charger and battery out of use immediately for safety reasons and have them inspected by a Milwaukee customer service centre.

Both 12V and 18V battery packs can be inserted into the charger at the same time, but they will be charged one after the other. The first battery pack to be inserted will be the first one to be charged. The red LED for the second battery pack will flash slowly to indicate that the charging process has not begun yet.

Charging a hot or cold battery pack

The Red Flashing Indicator light on the charger indicates that the battery pack temperature is outside the charging range. Once the battery pack is within the acceptable range, normal charging will take place and the red light will be continuous. Hot or cold batteries may take longer to charge.

Lithium-Ion Charging Status		
Battery Pack Temperature	Red Charger Indicator Light	Charging Status
Too Hot	Fast Flashing	Not charging
Normal Range	Continuous	Normal charging
Too Cold	Fast Flashing	Not charging

Powering the charger with an inverter or generator

The charger will operate with most generators and inverters rated at 600 Watts or higher.

TRANSPORTING LITHIUM BATTERIES

Lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.

Transportation of those batteries has to be done in accordance with local, national and international provisions and regulations.

- The user can transport the batteries by road without further requirements.
- Commercial transport of Lithium-Ion batteries by third parties is subject to Dangerous Goods regulations. Transport preparation and transport are exclusively to be carried out by appropriately trained persons and the process has to be accompanied by corresponding experts.

When transporting batteries:

- Ensure that battery contact terminals are protected and insulated to prevent short circuit.
- Ensure that battery pack is secured against movement within packaging.
- Do not transport batteries that are cracked or leak. Check with forwarding company for further advice

MAINTENANCE

If the supply cord of this appliance is damaged, it must only be replaced by a repair shop appointed by the manufacturer, because special purpose tools are required.

Use only Milwaukee accessories and spare parts. Should components need to be replaced which have not been described, please contact one of our Milwaukee service agents (see our list of guarantee/service addresses).

If needed, an exploded view of the tool can be ordered. Please state the machine type printed as well as the ten-digit No. on the label and order the drawing at your local service agents.

WARNING: To reduce the risk of injury, always unplug the charger and remove the battery from the charger before performing any maintenance. Never disassemble the battery or charger. Contact an authorized service centre for all repairs.

WARNING: To reduce the risk of injury and damage, never immerse your battery or charger in liquid or allow a liquid to flow inside them.

Cleaning

Clean out dust and debris from charger vents and electrical contacts by blowing with compressed air. Use only mild soap and a damp cloth to clean the battery pack and charger, keeping away from all electrical contacts. Certain cleaning agents and solvents are harmful to plastics and other insulated parts. Some of these include gasoline, turpentine, lacquer thinner, paint thinner, chlorinated cleaning solvents, ammonia and household detergents containing ammonia. Never use flammable or combustible solvents around batteries, charger, or tools.

SYMBOLS



Please read the instructions carefully before starting the product.



Do not burn used battery packs



Do not dispose of electric tools together with household waste material.

Electric tools and electronic equipment that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility. Check with your local authority or retailer for recycling advice and collection point.

Never charge a damaged battery pack. Replace with a new one.



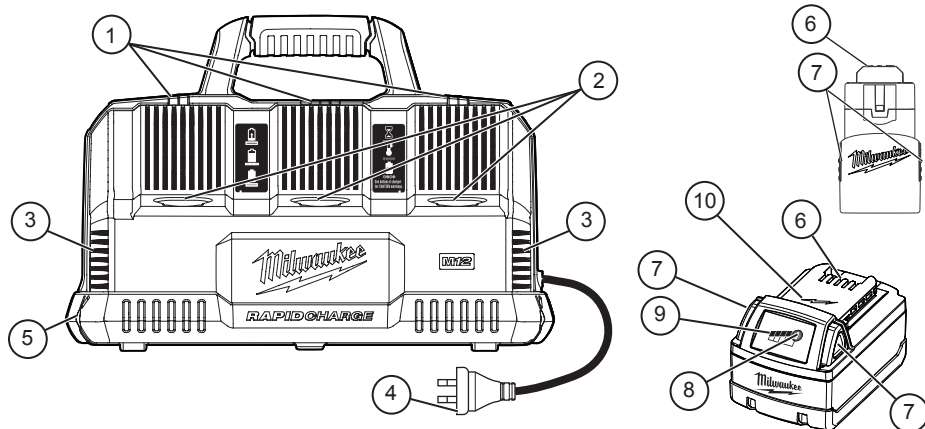
This appliance is for indoor use only. Never expose appliance to rain.



Time-lag fuse 5.0 A



Class II tool, double insulation



1. 指示灯
2. 机架（前面为12V，后面为18V）
3. 通风口
4. 2针插头的电源线
5. 壁挂式安装导轨
6. 电池接触点
7. 释放按钮
8. 电池灯按钮
9. 电池灯
10. 快速充电组件指示符

交流电输入	220 - 240 V
最大交流电输入	2.2 A
直流电输出	12/18 V
最大直流电输出	12 V - 4.5 A, 18 V - 6.0 A

⚠ 警告！ 阅读所有安全警告和说明。不遵照以下警告和说明会导致电击、着火和/或严重伤害。

保存所有警告和说明书以备查阅。

特殊安全指示

损坏的电池不可以丢入火中或一般的家庭垃圾中。美沃奇提供了符合环保要求的回收项目：请向您的专业经销商索取有关详情。

本充电器可为以下的电池充电：

电压	蓄电池种类 Li-Ion	额定电量	电池芯数目
12 V	M12 B	≤ 1.5 Ah	3
12 V	M12 B2	≤ 2.0 Ah	3
12 V	M12 BX	≤ 3.0 Ah	2 x 3
12 V	M12 B3	≤ 3.0 Ah	3
12 V	M12 B4	≤ 4.0 Ah	2 x 3
12 V	M12 B6	≤ 6.0 Ah	2 x 3
18 V	M18 B	≤ 1.5 Ah	5
18 V	M18 B2	≤ 2.0 Ah	5
18 V	M18 BX	≤ 3.0 Ah	2 x 5
18 V	M18 B4	≤ 4.0 Ah	2 x 5
18 V	M18 B5	≤ 5.0 Ah	2 x 5
18 V	M18 B6	≤ 6.0 Ah	2 x 5
18 V	M18 B9	≤ 9.0 Ah	3 x 5

本充电器不可以为非充电式电池充电。

电池不可以和金属物体存放在一起（可能产生短路）。

充电器的充电格中，不可以存在任何金属物质（可能产生短路）。

不可拆开电池和充电器。电池和充电器必须储藏在干燥的空间，勿让湿气渗入。

不可以把导电物体放入充电器中。

电池如果损坏了则不可以继续充电，必须马上更换新的电池。

使用之前，先检查机器、电源电线、电池、延长线和插头是否有任何损坏。损坏的零件只能交给专业电工换修。

除非由按法律规定负责安全的人员受到有关机器安全操作的培训，身体、感觉或精神机能障碍者或缺乏经验或知识的人员不得使用此机器。应看管上述人员使用机器。不要让小孩玩弄机器。由此，机器不被使用时，应把它保管在小孩拿不到的地方。

机器只能在室内操作，本机器不可以暴露在雨水中。

正确地使用机器

用此充电器可以向12V 和18V美沃奇锂离子电池充电。请依照本说明书的指示使用此机器。

电源插头

只能连接单相交流电，只能连接机器铭牌上规定的电压。本机器也可以连接在没有接地装置的插座上，因为本机器的结构符合第II级绝缘。

锂离子电池

电池出厂前已部分充电。蓄电池的LED显示充电状态。

如果一段时间未使用电池，电池会自动关闭。

电量用尽后电池会自动关闭（不会有过度放电的情形）。

在过度超荷下电池可能过热。这种情况下，电池会自动关闭。

此时，将电池插入充电器，再充电并激活电池。

按下电池上的按键可以显示电池的蓄电量。此时不必从电动工具中取出电池，但是至少要在1分钟前先关闭电动工具（否则显示结果不精确）。根据亮起的指示灯的数目，可以判断蓄电量的多寡。如果指示灯闪烁，代表目前的蓄电量最多只剩下10%。基本而言，在安装好电池后却仍然无法开动电动工具，则要取出电池并把电池装入充电器中。电池上的指示装置和充电器都能显示电池的现况。

在低温环境中，机器会以较弱的功率继续运作。

电池灯

使用电池灯确定电池的剩余运行时间。按下电池灯按钮以显示灯光。电池灯将亮起2-3秒钟。当剩余电量低于10%时，电池灯上的1个指示灯将缓慢闪烁。

注意：如果电池灯似乎没有运作，请将电池放在充电器上，并根据需要充电。

与镍镉电池类型相比，美沃奇锂离子电池可在整个运行时间内提供无衰减的功率。当您工作时，不会感受到工具逐渐减退力量。当完成放电时，电池灯上的1个指示灯将快速闪烁2-3秒，并且工具不会运行。为电池充电。

注意：在使用电池后，电池灯可能会显示比几分钟后检查时更低的电量。在休息之后，电池「恢复」部份电量。

电池超载保护

在极高的扭矩、结合、停滞和引起高电流消耗短路的情况下，工具将震动约5秒，电池灯会闪烁，然后工具将关闭。

如要重置，松开扳机。

在极端情况下，电池内部的温度可能过度提升。如果发生这种情况，电池灯会闪烁，直至电池冷却下来。灯熄灭后，可以继续工作。

将电池放在充电器上，以充电和重置。

电池灯	诊断	解决方案
灯1 - 4固体	剩余的运行时间	继续工作
1指示灯，缓慢闪烁	剩余运行时间少于10%	准备为电池充电
1指示灯，快速闪烁	放电结束	为电池充电

指示灯1-4，快速闪烁	电流过高	释放扳机并重新启动，降低压力
灯1和3/2和4，交替闪烁	电池温度过高	释放扳机，让电池冷却

寒冷天气操作

美沃奇锂离子电池能够于低于冰点的温度下工作。当电池太冷时，在正常使用前，可能需要预热。将电池放在工具上，在轻型应用中使用工具。它可能在短时间内发出「嗡嗡」声，直到它变暖。当「嗡嗡」声停止时，可正常使用工具。

LED 符号

	红灯连续发亮	充电
	绿灯缓慢闪亮	接近充满电
	绿灯连续发光	充满电
	红灯快速闪亮	电池过热 / 过冷 - 电池达到正确充电温度后，充电过程将开始。
	红灯缓慢闪亮	充电过程未开始，第一部电池充满电后，充电过程将开始。
	红灯 / 绿灯交替闪亮	电池损坏或不正确

操作

把电池装入充电器的充电格后，充电器便开始进行充电（红色指示灯持续亮着）。

充电后，充电器上的红色指示灯熄灭，绿色指示灯亮起。电池上的指示灯完全熄灭。

可以随意把电池从仪器取出。向未耗尽美沃奇电池充电不会造成所谓“记忆性能”。由此，插入充电器前电池不必完全耗尽。

在实践中最佳的方式为把电池从充电器中取出并把充电器从电源拔下。但是把电池留在被接通充电器上也不会造成损失。

如果两个指示灯交换闪烁，可能是未安装好电池，也可能是电池或充电器故障了。基于安全的顾虑，必须马上停止使用电池、充电器，并把上述机器交给美沃奇顾客服务处检修。

充电器上可同时插入12V 和 18V 电池，但各电池先后充电。第二个电池上慢闪的红色LED灯表示充电过程还未开始。

为热或冷电池充电

充电器上的红色闪烁指示灯指示电池的温度超出充电范围。当电池在可接受的范围内，电池将正常充电，并且红灯连续地闪烁。热或冷的电池可能需要更长时间充电。

锂离子充电状态		
电池温度	红色充电器的指示灯	充电状态
过热 普通范围 太冷	快速闪烁 连续 快速闪烁	不充电 正常充电 不充电

以反用换流器或发电机为充电器供电。

充电器能够与大部份额定功率为600瓦或更高的发电机和反用换流器一起操作。

锂离子电池的运输

锂离子电池属于危险货品并受制于危险货品运输条例。

此电池的运输必须遵守地方、国家和国际法律规定。

• 用户在公路上运输此电池不必遵守特殊规定。

• 锂离子电池的商业性运输受制于危险货品运输条例的规定。运输准备和运输必须由受过合适培训人员进行。全部过程必须由合格专业人员监督。

运输电池时必须注意到下列事项：

• 为避免短路，必须确保电池接点的防护和绝缘。

• 确保包装中的电池包不会滑动。

• 严禁运输损坏或泄漏电池。

进一步建议请联系运输商。

维修

如果设备的电源线损坏，因为需要专用工具，只能由制造商指定的维修站更换。

只能使用美沃奇配件和备件。如果需要更换的组件在此没有介绍，请与其中一个美沃奇服务代理机构联系（参见我们的保修/服务地址列表）。

如果需要机器的分解图，可以向您的顾客服务中心。案件时，必须向您的顾客服务中心提供以下资料：铭牌上机器的号码和机型。

警告：为了减少受伤的危险，在进行任何维护之前，请务必拔下充电器的电源插头，并从充电器中取出电池。切勿拆卸电池或充电器。请联系授权服务中心进行所有维修。

警告：为了降低受伤和损坏的危险，切勿将电池或充电器浸入液体中或让液体流入其中。

清洁

通过吹入压缩空气以清洁充电器通风口和电触点上的灰尘和碎屑。只能使用温和的肥皂和湿布清洁电池和充电器，清洁时远离所有电气触点。某些清洁剂和溶剂对塑料和其他绝缘部件有损害。其中一些包括汽油、松节油、漆稀剂、油漆稀剂、氯化清洁溶剂、氨和含氨的家用洗涤剂。切勿在电池、充电器或工具周围使用易燃或易燃溶剂。

符号



使用本机器之前请详细阅读使用说明书



不可以把充电电池丢入火中。



电气工具必须与生活垃圾分开处理。
电气机器和电子机器必须单独分开收集并送到回收站以确保符合环境保护的处理。
有关回收站和收集站的细节，请与主管当局或您的专业经销商联络。



电池如果损坏了则不可以继续充电，必须马上更换新的电池。



机器只能在室内操作，本机器不可以暴露在雨水中。



5.0 A时滞保险丝



保护等级II，具有不只依赖于基本绝缘，但依赖于双重或强化绝缘等保护措施电击保护的电动工具。





