

# Lithium-ion Xtreme Technology

Teknologi Xtreme Lithium-ion 锂离子技术

**18V**  
Lithium-ion  
18V Lithium-ion  
18V 锂离子

**LXT**  
Teknologi Ekstrim Lithium-ion  
锂离子技术

**270+**  
TOOLS  
WITH JUST 1 BATTERY PLATFORM

270+ ALAT DENGAN HANYA 1 PLATFORM BATERI  
270+ 机型可通用一个电池平台

\* Applicable for 18V Lithium-ion series only  
仅适用于 18V 锂离子系列



## 18V Lithium-ion Batteries

Bateri Lithium-ion 18V 锂离子技术  
18V 锂离子电池



**BL1860B**  
(197422-4)



**BL1850B**  
(197282-4)



**BL1840B**  
(197265-4) (197267-0)



**BL1830B**  
(197600-6)



**BL1815N**  
(196235-0) (196449-1)



**BL1815**  
(194513-2)



With battery fuel gauge Dengan penunjuk tahap bateri 备有电池电量计

## Makita Lithium-ion Battery Advantages

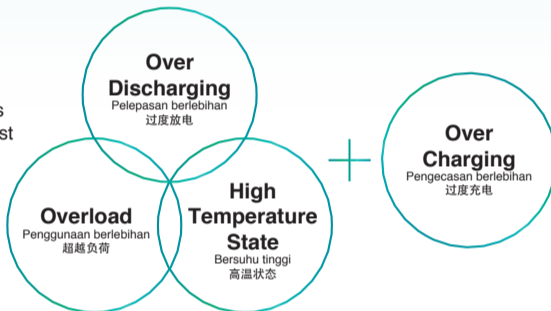
Kelebihan bateri Lithium-ion Makita  
Makita 锂电池优点

### Battery Protection Function

This function is communication technology that allows the tool and battery to monitor conditions and exchange data in real time to protect against Overload, Over-Discharge and Overheating

Fungsi perlindungan bateri untuk mencegah daripada penggunaan berlebihan, pelepasan berlebihan, bersuhu tinggi

电池保护功能允许工具和电池实时监控状况和交换数据以防止过载、过度放电和过热



### Anytime Charge

No memory effect  
No discharging required

Caj pada bila-bila masa tanpa kesan Memori  
随时可以充电不受记忆影响



### Shock Absorbing Heavy Duty Pack

Selongsong kukuh dan tahan lama  
外壳坚固耐用不易损坏



### Longtime Storage

Pelepasan automatik sangat rendah  
可以长时间存放  
自动放电电量极低



### Built in memory chip

The built-in memory chip in battery records the battery usage history and transmits data to the charger

Cip terbina dalam  
Cip memori terbina dalam bateri merakam status penggunaan bateri dan menghantar data ke pengecas

内置记忆晶片  
能自动记录使用状况，并把数据传充到充电器



### Built in CPU

The CPU built in the charger analyzes its condition; high temperature, re-charge after full charged, over-discharging  
The battery lasts long life because it can be charged at the best method and time

Unit pemrosesan pusat terbina dalam pengecas boleh menganalisis maklumat cip bateri (uhu bateri panas, pengesanan berlebihan, kekerapan penggunaan bateri)  
Cip akan menetapkan masa dan kaedah pengesanan optimum mengikut situasi untuk mengecaskan setiap komponen bateri

内置中央处理器  
能分析电池记忆卡内的资料 (电池是否高温或过度充电及电池使用次数等)  
中央处理器会根据情况，设定最佳充电时间及方法，为每个电池元件均等充电

## LXT Battery Chargers

Pengecas Bateri LXT  
18V 锂离子电池充电器



**DC18RC** (195586-8)  
**Rapid Charger**  
Pengecas Pantas  
快速充电器



**DC18RE** (198446-3)  
**CXT & LXT Dual Port Fast Charger**  
Pengecas Pantas Dua Port CXT & LXT  
CXT & LXT 两端快速充电器



**DC18SD** (194534-4)  
**Standard Charger**  
Pengecas Standard  
标准充电器



**DC18RD** (196934-4)  
**Two Port Multi Rapid Charger**  
Pengecas Pantas Dua Port  
两端快速充电器



**DC18SF** (196427-1)  
**Four Port Multi Charger**  
Pengecas Biasa Empat Port  
四端多功能充电器



**DC18SE** (194618-8)  
**Automotive Charger**  
Pengecas Automotif  
汽车充电器

## Optimum Charging System

Sistem Pengecasan Terbaik 智能充电系统

Makita Rapid Optimum Charger communicates with the battery's built-in chip throughout the charging process to optimize battery life by actively controlling current, voltage and temperature

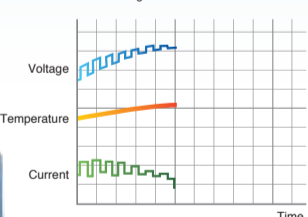
Pengecas Optimum Rapid Makita berkomunikasi dengan cip terbina dalam bateri sepanjang proses pengecasan untuk mengawal arus, voltan dan suhu secara automatik berdasarkan status bateri, mengoptimalkan hayat bateri.

Makita 充电器在整个充电过程中与电池的内置晶片交流，根据电池状态自动控制充电时的电流、电压及温度以延长电池寿命



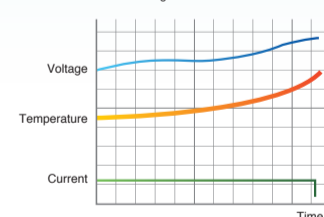
### Optimum charging system

Sistem Pengecasan Terbaik 智能充电系统



### General charging method

Kaedah Pengecasan Umum 一般充电方式



## Well Balanced Cooling

Penyejukan seimbang  
均等冷却

It is necessary to cool down before start charging when the battery temperature is high

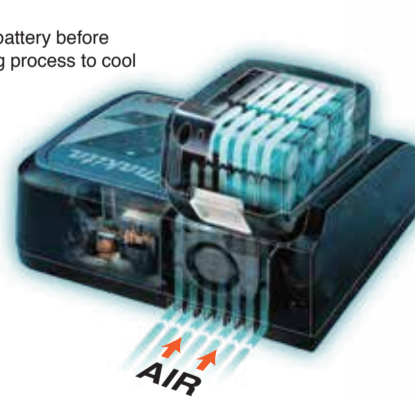
Built-in fan circulates air through the battery before start charging and during the charging process to cool the battery for faster charge time

Bateri yang baru diguna bersuhu tinggi perlu didinginkan sebelum pengecasan

Kipas terbina dalam menyejukkan bateri sebelum dan semasa proses pengecasan untuk mencapai pengecasan pantas

刚使用完的电池处于高温状态  
待冷却后才能开始充电

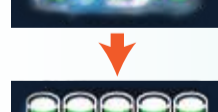
内置风扇有效为电池降温，令充电更早开始，在充电过程中持续冷却电池以实现快速充电



### Optimum charging system

Sistem Pengecasan Terbaik 智能充电系统

**Forced air cooling**

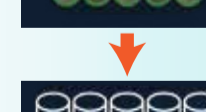


Fast charging

### General charging method

Kaedah Pengecasan Umum 一般充电方式

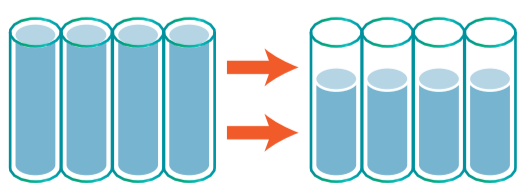
**Natural heat dissipation**



Waiting time for charging

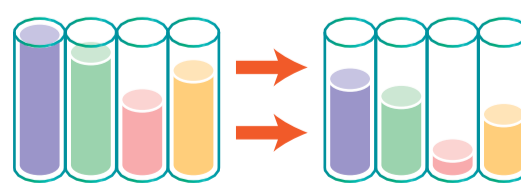
## Well Balanced Charging

Pengecasan seimbang 均等的充电



1.Full Charged

2.Discharging



1.Full Charged

2.Discharging

### MAKITA: Capacity Balanced Battery Pack

- It is designed that an individual cell whose condition is full, discharge, empty works well. It is hard to become the over-discharge and an overcharge because the individual cell capacity prevent to anomalies
- It is possible to use its efficiency because the capacity of each cell is not uneven and discharge evenly

Makita: Kapasiti bateri yang sama

1 Kapasiti setiap komponen bateri seragam untuk pengecasan dan penggunaan tenaga yang sama

2 Pelepasan arus yang sama untuk bekalan elektrik yang lebih tahan lama

Makita: 电池容量均等

1 每个电池元件的容量均一，所以不会发生个别电池元件过度充电或放电，有效延长电池寿命

2 电池元件均能放电，有效利用整个电池容量，令供电更持久

### Competitor A: Capacity Unbalanced Battery Pack

- Competitor charging system causes to decrease the capacity of the cell, which weakened by the heavy load work because Competitors do not install an optimum charge
- Discharge stops by using the capacity of the weakened cell completely, when you use the power tool in the condition, noted as above  
Therefore the capacities of other cells are not used completely, so that workloads are decreased at a charge

Jenama lain: Kapasiti bateri yang tidak sama

1 Kapasiti yang berlainan bagi setiap komponen bateri mungkin menyebabkan kerosakan akibat pengecasan atau pelepasan yang berlebihan

2 Bateri tidak boleh digunakan sekiranya ada kerosakan pada salah satu komponen bateri. Pelepasan arus yang tidak sama mengakibatkan kehausan elektrik dengan cepat

其他牌子: 电池元件容量不均

1 因每个电池元件容量不一，所以个别电池元件会出现过度充电或放电

2 当某个电池元件故障时，整个电池将不能再使用

在上述条件下使用电动工具时，电池元件放电不平衡，无法有效使用整个电池容量，很快没电