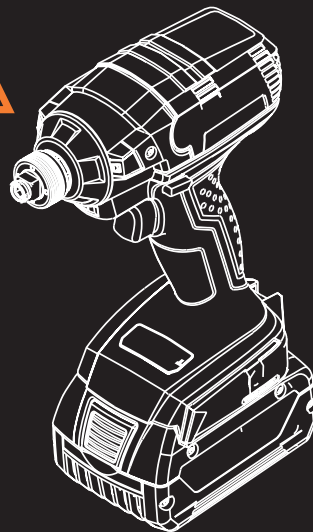


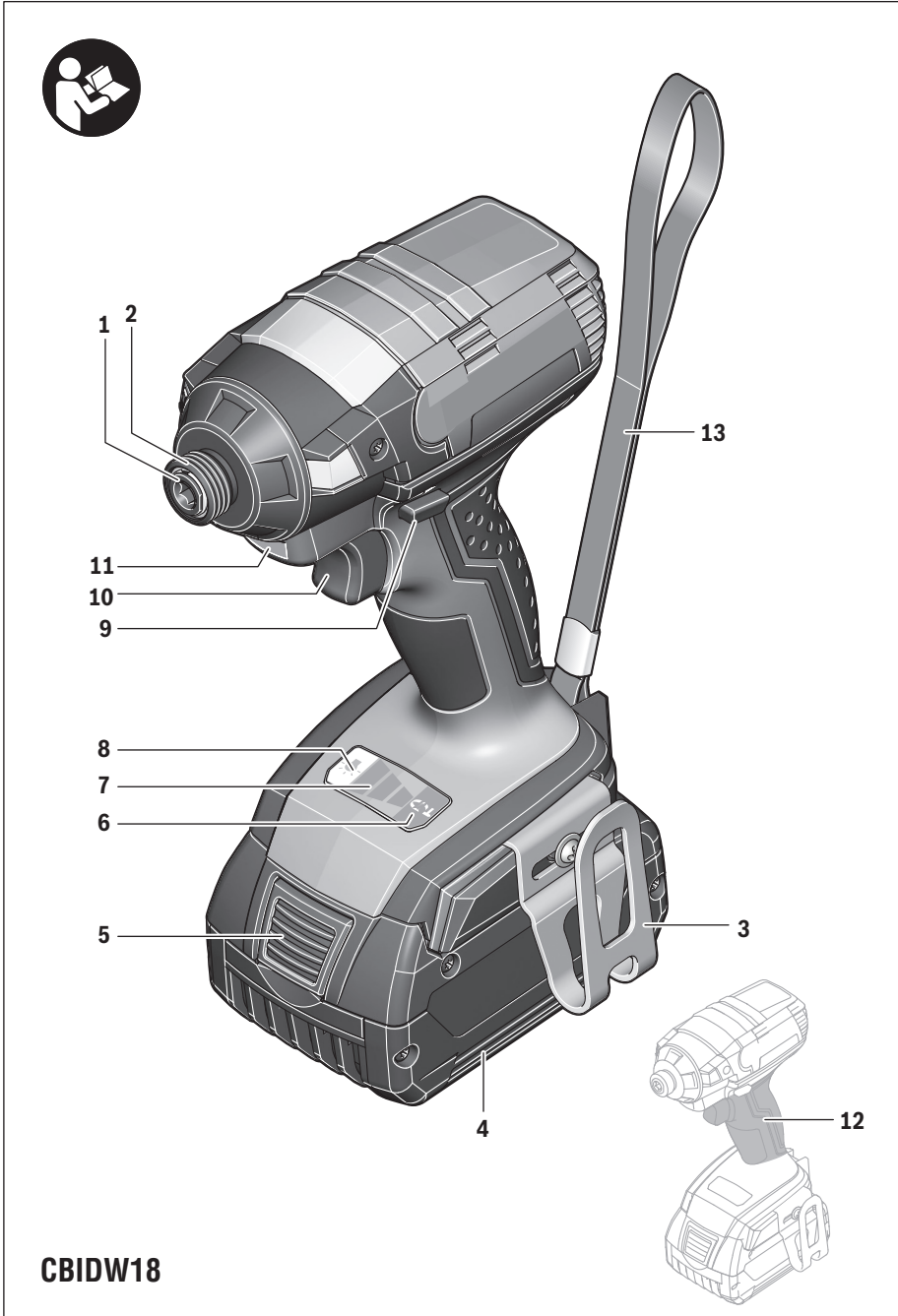
18V Impact Driver / Wrench

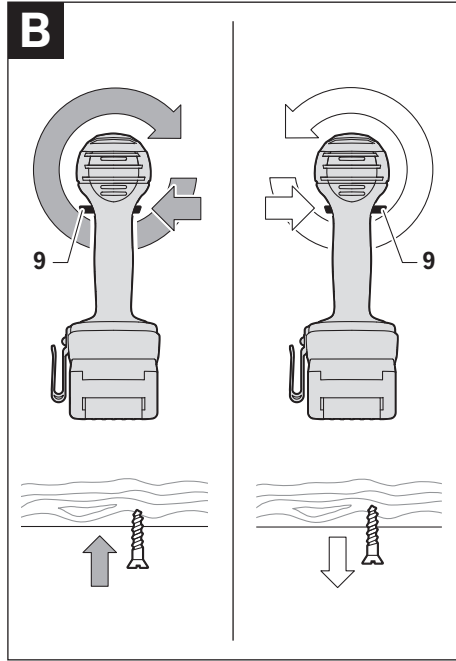
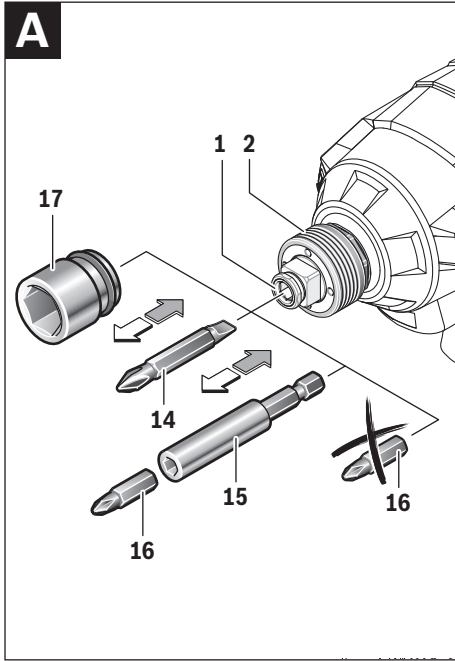
Owners Manual



BRUSHLESS / 

 **Ramset™**





Safety Notes

General Power Tool Safety Warnings

⚠ 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.

The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Work area safety

- ▶ **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- ▶ **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- ▶ **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical safety

- ▶ **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with**

earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.

- ▶ **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- ▶ **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- ▶ **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- ▶ **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- ▶ **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

Personal safety

- ▶ **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- ▶ **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- ▶ **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or engaging power tools that have the switch on invites accidents.
- ▶ **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- ▶ **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- ▶ **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- ▶ **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

Power tool use and care

- ▶ **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.

- ▶ **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- ▶ **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- ▶ **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- ▶ **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- ▶ **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- ▶ **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

Battery tool use and care

- ▶ **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- ▶ **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- ▶ **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- ▶ **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

Service

- ▶ **Have your power tool serviced by the Ramset National Service Centre using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

Safety Warnings for Impact Wrenches

- ▶ **Hold power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring.** Fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

- ▶ **Secure the workpiece.** A workpiece clamped with clamping devices or in a vice is held more secure than by hand.
- ▶ **Always wait until the machine has come to a complete stop before placing it down.** The tool insert can jam and lead to loss of control over the power tool.
- ▶ **Do not open the battery.** Danger of short-circuiting.



Protect the battery against heat, e. g., against continuous intense sunlight, fire, water, and moisture. Danger of explosion.

- ▶ **In case of damage and improper use of the battery, vapours may be emitted. Ventilate the area and seek medical help in case of complaints.** The vapours can irritate the respiratory system.
- ▶ **Use the battery only in conjunction with your Ramset power tool.** This measure alone protects the battery against dangerous overload.
- ▶ **The battery can be damaged by pointed objects such as nails or screwdrivers or by force applied externally.** An internal short circuit can occur and the battery can burn, smoke, explode or overheat.

Product Description and Specifications



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

While reading the operating instructions, unfold the graphics page for the machine and leave it open.

Intended Use

The machine is intended for driving in and loosening screws and bolts as well as for tightening and loosening nuts within the respective range of dimension.

The light of this power tool is intended to illuminate the power tool's direct area of working operation and is not suitable for household room illumination.

Product Features

The numbering of the product features refers to the illustration of the machine on the graphics page.

- 1 Tool holder
- 2 Locking sleeve
- 3 Belt clip*
- 4 Battery pack*
- 5 Battery unlocking button*
- 6 Button for electronic speed preselection
- 7 Speed indication
- 8 "PowerLight" button
- 9 Rotational direction switch
- 10 On/Off switch
- 11 "PowerLight"
- 12 Handle (insulated gripping surface)

- 13 Carrying strap
- 14 Double bit*
- 15 Universal bit holder*
- 16 Screwdriver bit*

17 Application tool (e. g. an impact socket)*

*Accessories shown or described are not part of the standard delivery scope of the product. A complete overview of accessories can be found in our accessories program.

Technical Data

Impact Driver/Wrench		CBIDW18
Rated voltage	V=	18
No-load speed		
– Setting 1	min ⁻¹	0 – 1300
– Setting 2	min ⁻¹	0 – 2000
– Setting 3	min ⁻¹	0 – 2800
Impact rate		
– Setting 1	min ⁻¹	0 – 1100
– Setting 2	min ⁻¹	0 – 2600
– Setting 3	min ⁻¹	0 – 3200
Maximum torque, hard screwdriving application according to ISO 5393		
– ¼" hexagon socket	Nm	170
– ■ ½"	Nm	185
Bolt size	mm	M6 – M16
Tool holder		¼" hexagon socket / ■ ½"
Weight according to EPTA-Procedure 01:2014	kg	1.4 - 1.9
Battery		
Permitted ambient temperature		
– when charging	°C	0... +45
– during operation*	°C	– 20... +50
– during storage	°C	– 20... +60
Recommended batteries		CBBAT18...

* Limited performance at temperatures < 0 °C



Noise/Vibration Information

Measured sound values determined according to EN 60745.

Typically the A-weighted noise levels of the product are:
Sound pressure level 95 dB(A); Sound power level
106 dB(A). Uncertainty K = 3 dB.

Wear hearing protection!

Vibration total values a_h (triax vector sum) and uncertainty K determined according to EN 60745:

Impact tightening of fasteners of the maximum capacity of the tool: $a_h = 13.5 \text{ m/s}^2$, $K = 1.5 \text{ m/s}^2$.

The vibration level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.

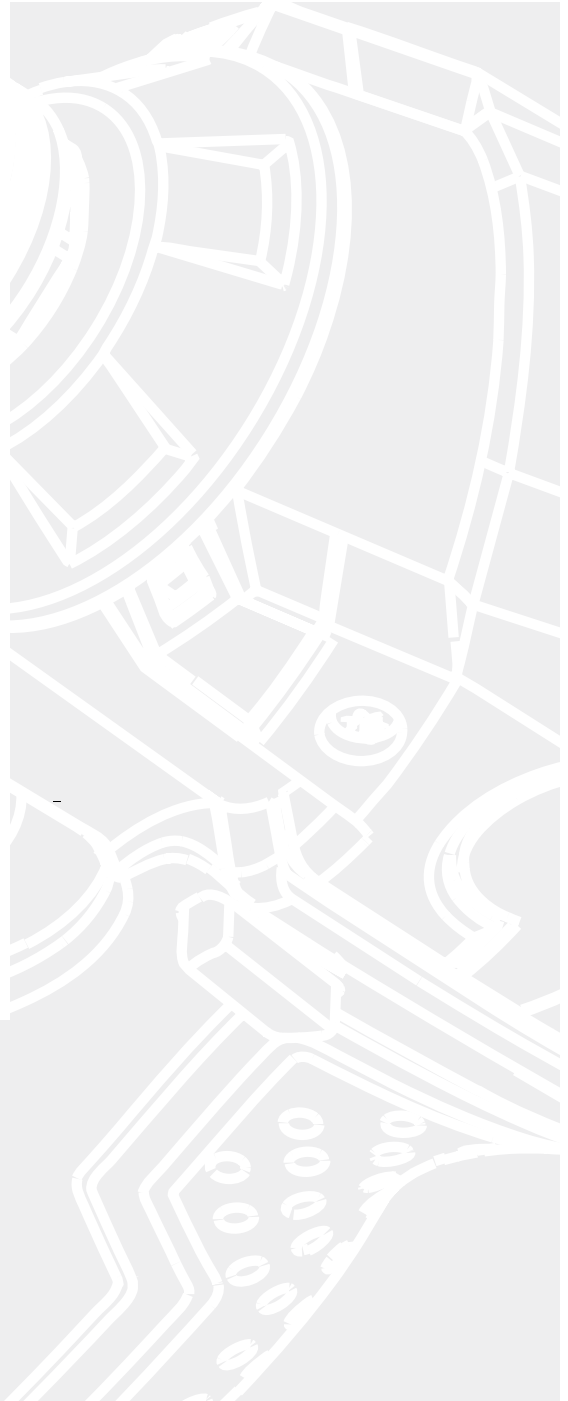
The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or insertion tools or is poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period.

An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period.

Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

- **Use only the battery chargers listed on the accessories page.** Only these battery chargers are matched to the lithium ion battery of your power tool.

Note: The battery is supplied partially charged. To ensure full capacity of the battery, completely charge the battery in the battery charger before using your power tool for the first time. The lithium-ion battery can be charged at any time without reducing its service life. Interrupting the charging procedure does not damage the battery.



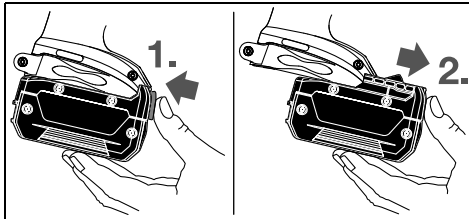
The lithium ion battery is protected against deep discharging by the “Electronic Cell Protection (ECP)”. When the battery is empty, the machine is switched off by means of a protective circuit: The inserted tool no longer rotates.

- ▶ **Do not continue to press the On/Off switch after the machine has been automatically switched off.** The battery can be damaged.

Observe the notes for disposal.

Removing the battery

The battery **4** is equipped with two locking levels that should prevent the battery from falling out when pushing the battery unlocking button **5** unintentionally. As long as the battery is inserted in the power tool, it is held in position by means of a spring.



To remove the battery **4**, press the unlocking button **5** and pull out the battery toward the front. **Do not exert any force.**

Changing the Tool

- ▶ **Before any work on the machine itself (e. g. maintenance, tool change, etc.) as well as during transport and storage, remove the battery from the power tool.** There is danger of injury when unintentionally actuating the On/Off switch.
- ▶ **Regularly clean the power tool’s air vents.** The motor’s fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.

Inserting

Pull the locking sleeve **2** forward, push the insert tool to the stop into the tool holder **1** and release the locking sleeve **2** to lock the insert tool.

Screwdriver bits **16** can be inserted using a universal bit holder with ball lock **15**.

Removing

Pull the locking sleeve **2** forward and remove the insert tool.

- ▶ **When working with an application tool, pay attention that the application tool is connected securely on the tool holder.** When the application tool is not securely connected with the tool holder, it can come off during application.

Slide the application tool **17** onto the square drive of the tool holder **1**.

However based on the system, if the application tool **17** appears wobbly after connecting securely on the tool holder **1**; this has no influence on the function/safety.

Some application tools (e. g. double bits) cannot be safely secured in the tool holder.

Operation

Method of Operation

The tool holder **1** with the tool is driven by an electric motor via a gear and impact mechanism.

The working procedure is divided into two phases: **Screwing in** and **tightening** (impact mechanism in action).

The impact mechanism is activated as soon as the screwed connection runs tight and thus load is put on the motor. In this instance, the impact mechanism converts the power of the motor to steady rotary impacts. When loosening screws or nuts, the process is reversed.

Starting Operation

Inserting the battery

- ▶ **Use only original Ramset lithium ion batteries with the voltage listed on the nameplate of your power tool.** Using other batteries can lead to injuries and pose a fire hazard.

Set the rotational direction switch **9** to the centre position to protect the power tool against accidental starting.

Insert the charged battery **4** from the front into the base of the power tool until the battery is securely locked.

Reversing the rotational direction (see figure D)

The rotational direction switch **9** is used to reverse the rotational direction of the machine. However, this is not possible with the On/Off switch **10** actuated.

Right rotation: For driving in screws and tightening nuts, press the rotational direction switch **9** through to the left stop.

Left Rotation: For loosening and unscrewing screws and nuts, press the rotational direction switch **9** through to the right stop.

Switching On and Off

To **start** the machine, press the On/Off switch **10** and keep it pressed.

To **switch off** the machine, release the On/Off switch **10**.

To save energy, only switch the power tool on when using it.

Adjusting the Speed

The speed of the switched on power tool can be variably adjusted, depending on how far the On/Off switch **10** is pressed.

Light pressure on the On/Off switch **10** results in a low rotational speed. Further pressure on the switch results in an increase in speed.

Preselecting the Speed/Impact Frequency

With the button **6** you can preselect the required speed/impact rate in three stages. Press the button **6** repeatedly until the desired setting appears in the speed indicator **7**. The selected setting will be saved.

The required speed/impact frequency depends on the material and the working conditions, and can be determined through practical testing.

Switching the “PowerLight” On/Off

To switch the “PowerLight” **11 on**, press button **8**. To switch the “PowerLight” **11 off**, press button **8** again.

Working Advice

► **Apply the power tool to the screw/nut only when it is switched off.** Rotating tool inserts can slip off.

The torque depends on the impact duration. The maximum achieved torque results from the sum of all individual torques achieved through impact. The maximum torque is achieved after an impact duration of 6–10 seconds. After this duration, the tightening torque is increased only minimally.

The impact duration is to be determined for each required tightening torque. The actually achieved tightening torque is always to be checked with a torque wrench.

Screw Applications with Hard, Spring-loaded or Soft Seat

When in a test, the achieved torques in an impact series are measured and transferred into a diagram, resulting in the

curve of a torque characteristic. The height of the curve corresponds with the maximum reachable torque, and the steepness indicates the duration in which this is achieved.

A torque gradient depends on the following factors:

- Strength properties of the screws/nuts
- Type of backing (washer, disc spring, seal)
- Strength properties of the material being screwed/bolted together
- Lubrication conditions at the screw/bolt connection

The following application cases result accordingly:

- A **hard seat** is given for metal-to-metal screw applications with the use of washers. After a relatively short impact duration, the maximum torque is reached (steep characteristic curve). Unnecessary long impact duration only causes damage to the machine.
- A **spring-loaded seat** is given for metal-to-metal screw applications, however with the use of spring washers, disc springs, studs or screws/nuts with conical seat as well as when using extensions.
- A **soft seat** is given for screw applications, e. g., metal on wood or when using lead washers or fibre washers as backing.

For a spring-loaded seat as well as for a soft seat, the maximum tightening torque is lower than for a hard seat. Also, a clearly longer impact duration is required.

Reference Values for Maximum Screw/Bolt Tightening Torques

Calculated from the tensional cross-section; utilization of the yield point 90 % (with friction coefficient $\mu_{\text{total}} = 0.12$). As a control measure, always check the tightening torque with a torque wrench.

Property Classes according to DIN 267	Standard Screws/Bolts								High-strength Bolts			
	3.6	4.6	5.6	4.8	6.6	5.8	6.8	6.9	8.8	10.9	12.9	
M 6	2.71	3.61	4.52	4.8	5.42	6.02	7.22	8.13	9.7	13.6	16.2	
M 8	6.57	8.7	11	11.6	13.1	14.6	17.5	19.7	23	33	39	
M 10	13	17.5	22	23	26	29	35	39	47	65	78	
M 12	22.6	30	37.6	40	45	50	60	67	80	113	135	
M 14	36	48	60	65	72	79	95	107	130	180	215	
M 16	55	73	92	98	110	122	147	165	196	275	330	

Tips

Before screwing larger, longer screws into hard materials, it is advisable to predrill a pilot hole with the core diameter of the thread to approx. $\frac{2}{3}$ of the screw length.

Note: Pay attention that no metal particles enter the power tool.

Belt Clip

With the belt clip **3**, the machine can be hung onto a belt. The user has both hands free and the machine is always at hand.

Recommendations for Optimal Handling of the Battery

Protect the battery against moisture and water.

Store the battery only within a temperature range between 0 °C and 50 °C. As an example, do not leave the battery in the car in summer.

Occasionally clean the venting slots of the battery using a soft, clean and dry brush.

A significantly reduced working period after charging indicates that the battery is used and must be replaced.

Observe the notes for disposal.

Maintenance and Service

Maintenance and Cleaning

► **Before any work on the machine itself (e. g. maintenance, tool change, etc.) as well as during transport and storage, remove the battery from the power tool.** There is danger of injury when unintentionally actuating the On/Off switch.

- ▶ **For safe and proper working, always keep the machine and ventilation slots clean.**

After-sales Service and Application Service

Our after-sales service responds to your questions concerning maintenance and repair of your product as well as spare parts.

ramsetreid Postal:

Australia:

P.O. Box 192, Croydon, Victoria 3136
1 Ramset Drive, Chirnside Park, Victoria 3116

Customer Service Center Inside Australia:

Phone: 1300 780 063
Fax: 1300 780 064

New Zealand:

Inside New Zealand:

Phone: 0800 RAMSET (726738)
Fax: (0800) 428570

Outside AU and NZ:

Phone: +61 3 9726 62
www.ramset.com.au

Transport

The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements. The user can transport the batteries by road without further requirements.

When being transported by third parties (e. g.: air transport or forwarding agency), special requirements on packaging and labelling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is required.

Dispatch batteries only when the housing is undamaged. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging. Please also observe possibly more detailed national regulations.

Disposal



The machine, rechargeable batteries, accessories and packaging should be sorted for environmental-friendly recycling.

Do not dispose of power tools and batteries/rechargeable batteries into household waste!



Subject to change without notice.

Warranty

This Ramset™ tool is warranted to the original purchaser only to be free from defects in material and workmanship. Subject to certain exceptions Ramset™ will repair or replace any part of the tool which, after examination, is determined by Ramset™ to be defective in material or workmanship for a period of two (2) years* after the date of purchase.

Return the tool and a copy of proof of purchase to the Ramset™ National Service Centre, freight prepaid and insured, as requested for this warranty to be effective. This warranty does not apply to damage that Ramset™ determines to be from repairs made or attempted by anyone other than Ramset™ authorized personnel, misuse, alterations, abuse, normal wear and tear, lack of maintenance, or accidents.

*Statutory rights for goods and purchases as a customer.

Australia

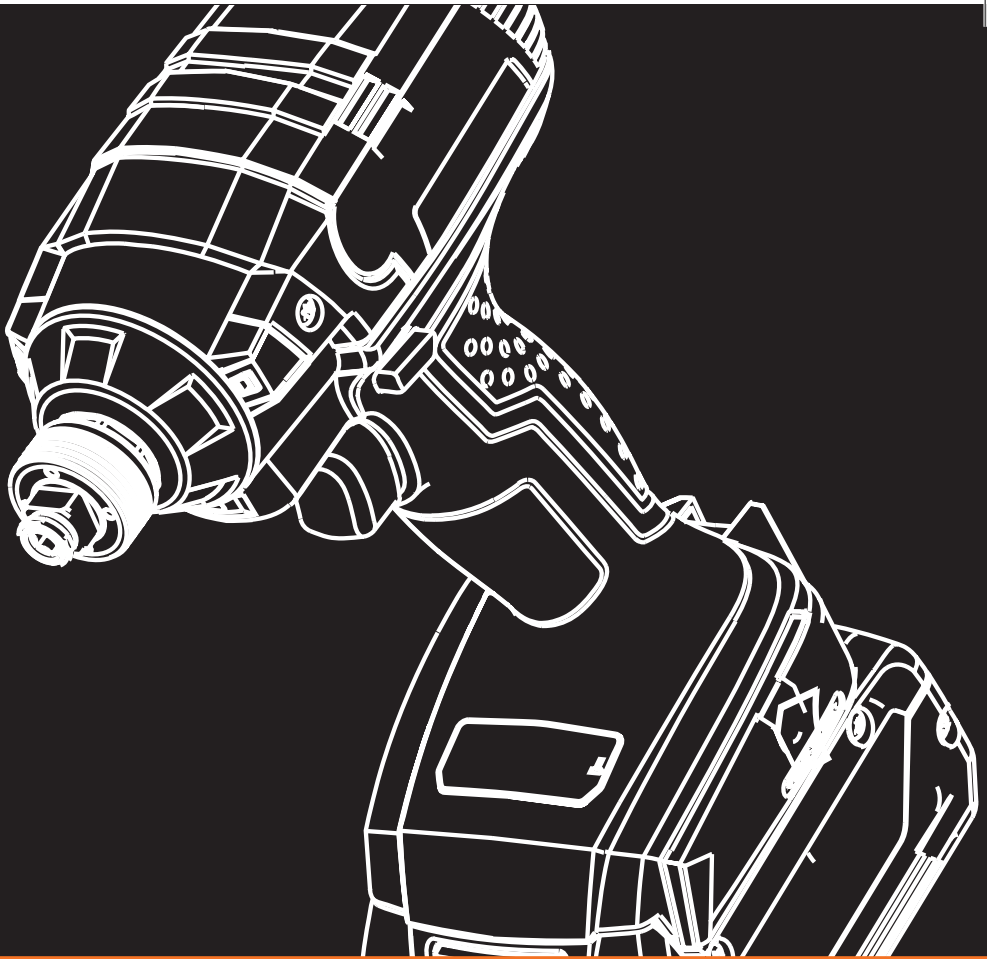
In addition to other rights and remedies that may be available under law, our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonable foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

New Zealand

This warranty is supplemental to any other rights and remedies you have under the Consumer Guarantees Act 1993 NZ, unless your purchase is made for commercial purposes, in which case Ramset™ excludes all consumer guarantees implied in the Consumer Guarantees Act 1993 NZ in respect of your product.

Acceptance of the exclusive repair and replacement remedies described herein is a condition of the contract for the purchase of every Ramset™ product. If you do not agree to this condition, you should not purchase the product. In no event shall Ramset™ be liable for any incidental, special, consequential or punitive damages, or for any costs, attorney fees, expenses, losses or delays alleged to be as a consequence of any damage to, failure of, or defect in any product including, but not limited to, any claims for loss of profits.

This warranty is exclusive and in lieu of all other warranties or conditions, written or oral, expressed or implied. Without limiting the generality of the foregoing, Ramset™ disclaims any implied warranty of merchantability or fitness for a particular use or purpose, and all other warranties.



customer service

Ramset™ Australia

Customer Service Centre

Tel: 1300 780 063

Web ramset.com.au

Ramset™ New Zealand

Customer Service Centre

Tel: 0800 RAMSET (726738)

Web: ramset.co.nz

