

metabo HPT CV 18DA Cordless Multi Tool Instruction Manual

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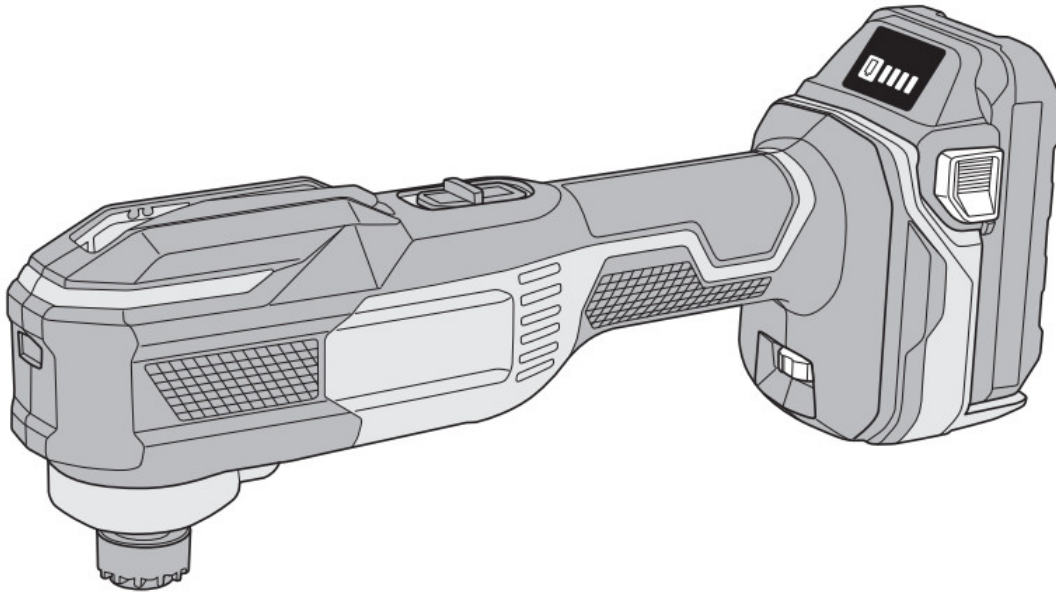
metabo **HPT**

Model
CV 18DA
Cordless Multi Tool

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CV 18DA Cordless Multi Tool



SAFETY INSTRUCTIONS AND INSTRUCTION MANUAL



WARNING

IMPROPER OR UNSAFE use of this power tool can result in death or serious bodily injury!

This manual contains important information about product safety. Please read and understand this manual **BEFORE** operating the power tool. Please keep this manual available for other users and owners before they use the power tool. This manual should be stored in safe place.

IMPORTANT SAFETY INSTRUCTIONS

Read and understand all of the safety precautions, warnings and operating instructions in the Instruction Manual before operating or maintaining this power tool.

Most accidents that result from power tool operation and maintenance are caused by the failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing a potentially hazardous situation before it occurs, and by observing appropriate safety procedures.

Basic safety precautions are outlined in the “SAFETY” section of this Instruction Manual and in the sections which contain the operation and maintenance instructions.

Hazards that must be avoided to prevent bodily injury or machine damage are identified by **WARNINGS** on the power tool and in this Instruction Manual.

NEVER use this power tool in a manner that has not been specifically recommended by metabo HPT.

MEANINGS OF SIGNAL WORDS

WARNING indicates a potentially hazardous situations which, if ignored, could result in death or serious injury.

CAUTION indicates a potentially hazardous situations which, if not avoided, may result in minor or moderate injury, or may cause machine damage.

NOTE emphasizes essential information.

SAFETY

GENERAL POWER TOOL SAFETY WARNINGS



WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this power tool.

Failure to follow all instructions listed below 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.

1. **Work area safety**

- a) Keep work area clean and well lit.

Cluttered or dark areas invite accidents.

- b) 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.

- c) Keep children and bystanders away while operating a power tool.

Distractions can cause you to lose control.

2. **Electrical safety**

- a) 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.

- b) 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.

- c) Do not expose power tools to rain or wet conditions.

Water entering a power tool will increase the risk of electric shock.

- d) 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.

- e) 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.

- f) 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.

3. **Personal safety**

- a) 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.

- b) Use personal protective equipment. Always wear eye protection.

Protective equipment such as a dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

- c) 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 energising power tools that have the switch on invites accidents.

- d) 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.

- e) Do not overreach. Keep proper footing and balance at all times.

This enables better control of the power tool in unexpected situations.

- f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.

Loose clothes, jewellery or long hair can be caught in moving parts.

- g) 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.

h) Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.

A careless action can cause severe injury within a fraction of a second.

4. Power tool use and care

a) 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.

b) 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.

c) Disconnect the plug from the power source and/or remove the battery pack, if detachable, 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.

d) 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.

e) Maintain power tools and accessories.

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.

f) Keep cutting tools sharp and clean.

Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) 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.

h) Keep handles and grasping surfaces dry, clean and free from oil and grease.

Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

5. Battery tool use and care

a) 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.

b) Use power tools only with specifically designated battery packs.

Use of any other battery packs may create a risk of injury and fire.

c) 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.

d) 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.

e) Do not use a battery pack or tool that is damaged or modified.

Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.

f) Do not expose a battery pack or tool to fire or excessive temperature.

Exposure to fire or temperature above 265°F may cause explosion.

g) Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.

Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

6. Service

a) Have your power tool serviced by a qualified repair person using only identical replacement parts.

This will ensure that the safety of the power tool is maintained.

b) Never service damaged battery packs.

Service of battery packs should only be performed by the manufacturer or authorized service providers.



WARNING

To reduce the risk of injury, user must read instruction manual.

SPECIFIC SAFETY RULES AND SYMBOLS

1. Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring.

Cutting accessory contacting a “live” wire may make exposed metal parts of the power tool “live” and could give the operator an electric shock.

2. Do not use this tool in wet applications.

Water or moisture entering the tool could give the operator an electric shock.

3. Always hold the tool firmly with one hand on housing (Fig. 1). Do not touch the metal part.

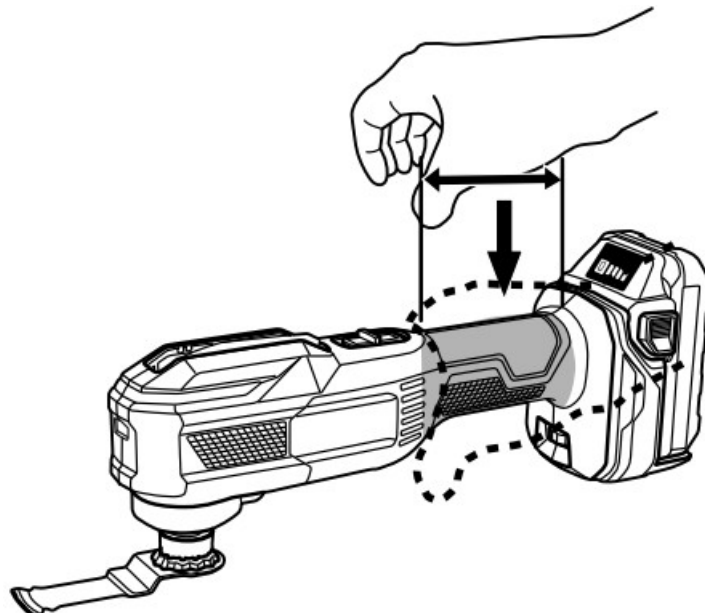


Fig. 1

4. Make sure that the area to be cut is absolutely free of any hidden obstructions including electrical wiring, water, or gas pipes. Cutting into the aforementioned may result in electric shock or short circuit, gas leak or other hazards that can cause serious accidents or injuries.

5. Setting up and checking the work environment.

Check if the work environment is suitable by following the precaution.

6. Dust particles such as silica or asbestos are hazardous to your health. When working with materials containing these components, take appropriate dust-proofing measures.

7. Use clamps or another practical way to secure and support the workpiece to a stable platform.

Holding the workpiece by hand or against your body leaves it unstable and may lead to loss of control.

8. ALWAYS wear ear protectors when using the tool for extended periods.

Prolonged exposure to high intensity noise can cause hearing loss.



9. NEVER touch the application tool with bare hands after operation.

10. Because the cordless multi tool operates by battery power, be aware of the fact that it can begin to operate at any time.

11. When working at elevated locations, clear the area of all other people and be aware of conditions below you.

12. NEVER touch moving parts.

NEVER place your hands, fingers or other body parts near the tool's moving parts.



13. NEVER operate without all guards in place.

NEVER operate this tool without all guards or safety features in place and in proper working order. If maintenance or servicing requires the removal of a guard or safety feature, be sure to replace the guard or safety feature before resuming operation of the tool.

14. Use right tool.

Don't force small tool or attachment to do the job of a heavy-duty tool.

Don't use tool for purpose not intended—for example—don't use multi tool for cutting tree limbs or logs.

15. NEVER use a power tool for applications other than those specified.

NEVER use a power tool for applications other than those specified in the instruction manual.

16. Handle tool correctly.

Operate the tool according to the instructions provided herein. Do not drop or throw the tool.

NEVER allow the tool to be operated by children, individuals unfamiliar with its operation or unauthorized personnel.

17. Keep all screws, bolts and covers tightly in place.

Keep all screws, bolts, and plates tightly mounted.

Check their condition periodically.

18. Do not use power tools if the plastic housing or handle is cracked.

Cracks in the tool's housing or handle can lead to electric shock. Such tools should not be used until repaired.

19. Application tools and accessories must be securely mounted to the tool.

Prevent potential injuries to yourself or others.

Application tools, cutting implements and accessories which have been mounted to the tool should be secure and tight.

20. Keep motor air vent clean.

The tool's motor air vent must be kept clean so that air can freely flow at all times. Check for dust build-up

frequently.

21. NEVER use a tool which is defective or operating abnormally.

If the tool appears to be operating unusually, making strange noises, or otherwise appears defective, stop using it immediately and arrange for repairs by a metabo HPT authorized service center.

22. NEVER leave tool running unattended. Turn power off.

Don't leave tool until it comes to a complete stop.

23. Carefully handle power tools.

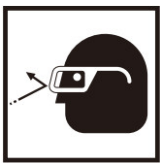
Should a power tool be dropped or struck against hard materials inadvertently, it may be deformed, cracked, or damaged.

24. Do not wipe plastic parts with solvent.

Solvents such as gasoline, thinner benzene, carbon tetrachloride, and alcohol may damage and crack plastic parts. Do not wipe them with such solvents.

Wipe plastic parts with a soft cloth lightly dampened with soapy water and dry thoroughly.

25. Always wear eye protection that meets the requirement of the latest revision of ANSI Standard Z87.1.



26. ALWAYS wear a mask or respirator to protect yourself from dust or potentially harmful particles generated during operation.

27. ALWAYS firmly grip the handle while operating.

28. ALWAYS be careful with buried object such as an underground wiring.

Touching these active wiring or electric cable with this tool, you may receive an electric shock.

Confirm if there are any buried object such as electric cable within the wall, floor or ceiling where you are going to operate here after.

29. Working with metal can cause sparks. Make sure there are no flammable and combustible materials in the vicinity and that they are stored in a safe location.

30. The motor may stop in the event the tool is overloaded. In this should occur, release the tool's switch and eliminate the cause of the overload.

31. Do not leave the tool running unattended on the floor, table or other locations. Doing so may result in injury.

32. If the application tool seems to be loose or uneven after attaching it to the unit, re-attach the tool.

Operating the unit with a loose or uneven application tool may result in injury.

33. Do not use the product if the tool or the battery terminals (battery mount) are deformed.

Installing the battery could cause a short circuit that could result in smoke emission or ignition.

34. Keep the tool's terminals (battery mount) free of swarf and dust.

○ Prior to use, make sure that swarf and dust have not collected in the area of the terminals.

○ During use, try to avoid swarf or dust on the tool from falling on the battery.

○ When suspending operation or after use, do not leave the tool in an area where it may be exposed to falling swarf or dust.

Doing so could cause a short circuit that could result in smoke emission or ignition.

35. Always use the tool and battery at temperatures between 23°F (-5°C) and 104°F (40°C).

36. Definitions for symbols used on this tool

V..... volts

=== direct current
 n0 no load speed
 —/min..... revolutions or reciprocation per minute
 Hz hertz
 A amperes

IMPORTANT SAFETY INSTRUCTIONS FOR BATTERY CHARGER



WARNING

Death or serious bodily injury could result from improper or unsafe use of battery chargers. To avoid these risks, follow these basic safety instructions:

READ ALL INSTRUCTIONS

1. This manual contains important safety and operating instructions for battery charger Model UC18YFSL.
2. Before using battery charger, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
3. To reduce risk of injury, charge metabo HPT rechargeable battery types BSL18 series and multi volt series. Other type of batteries may burst causing personal injury and damage.
4. Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
5. To reduce risk of damage to electric plug and cord, pull by plug when disconnecting battery charger.
6. Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
7. An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock.

If extension cord must be used make sure:

- a. That blades of extension cord are the same number, size, and shape as those of plug on battery charger;
- b. That extension cord is properly wired and in good electrical condition; and
- c. That wire size is large enough for AC ampere rating of battery charger as specified in Table 1.

Table 1: RECOMMENDED MINIMUM AWG SIZE FOR EXTENSION CORDS FOR BATTERY CHARGERS

| AC Input Rating Amperes *1 | | AWG Size of Cord | | | |
|-------------------------------|---------------|------------------------------|---------|----------|----------|
| Equal to or greater than | but less than | Length of Cord, Feet (Meter) | | | |
| | | 25 (7.5) | 50 (15) | 100 (30) | 150 (45) |
| 0 | 2 | 18 | 18 | 18 | 16 |
| 2 | 3 | 18 | 18 | 16 | 14 |
| 3 | 4 | 18 | 18 | 16 | 14 |

*1 If the input rating of a battery charger is given in watts rather than in amperes, the corresponding ampere rating is to be determined by dividing the wattage rating by the voltage rating—for example:

$$\frac{1,250 \text{ watts}}{125 \text{ volts}} = 10 \text{ amperes}$$

8. Do not operate battery charger with damaged cord or plug-replace them immediately.
9. Do not operate battery charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified serviceman.
10. Do not disassemble battery charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
11. To reduce risk of electric shock, unplug charger from receptacle before attempting any maintenance or cleaning. Removing the battery will not reduce this risk.

IMPORTANT SAFETY INSTRUCTIONS FOR USE OF THE BATTERY AND BATTERY CHARGER

You must charge the battery before you can use the power tool. Before using the model UC18YFSL battery charger, be sure to read all instructions and cautionary statements on it, the battery and in this manual.



WARNING

USE ONLY metabo HPT BATTERIES. OTHER MODELS OF BATTERIES MAY BURST AND CAUSE INJURY! Follow these instructions to avoid the risk of injury:



WARNING

Improper use of the battery or battery charger can lead to serious injury. To avoid these injuries:

1. NEVER disassemble the battery.
2. NEVER incinerate the battery, even if it is damaged or is completely worn out. The battery can explode in a fire.
3. NEVER short-circuit the battery.
4. NEVER insert any objects into the battery charger's air vents. Electric shock or damage to the battery charger may result.
5. NEVER charge outdoors. Keep the battery away from direct sunlight and use only where there is low humidity and good ventilation.
6. NEVER charge when the temperature is below 32°F (0°C) or above 104°F (40°C).
7. NEVER connect two battery chargers together.
8. NEVER insert foreign objects into the hole for the battery or the battery charger.
9. NEVER use a booster transformer when charging.
10. NEVER use DC power to charge.
11. NEVER store the battery or battery charger in places where the temperature may reach or exceed 104°F (40°C) such as inside metal box or car.
12. NEVER expose the battery or battery charger to rain or wet conditions.
13. ALWAYS operate charger on standard household electrical power (120 volts). Using the charger on any other voltage may overheat and damage the charger.
14. ALWAYS wait at least 15 minutes between charges to avoid overheating the charger.
15. ALWAYS disconnect the power cord from its receptacle when the charger is not in use.

CAUTION ON LITHIUM-ION BATTERY

To extend the lifetime, the lithium-ion battery equips with the protection function to stop the output.

In the cases of 1 to 3 described below, when using this product, even if you are pulling the switch, the motor may stop. This is not the trouble but the result of protection function.

1. When the battery power remaining runs out, the motor stops.

In such case, charge it up immediately.

2. If the tool is overloaded, the motor may stop. In this case, release the switch of tool and eliminate causes of overloading. After that, you can use it again.

3. If the battery is overheated under overload work, the battery power may stop.

In this case, stop using the battery and let the battery cool. After that, you can use it again.

Furthermore, please heed the following warning and caution.



WARNING

In order to prevent any battery leakage, heat generation, smoke emission, explosion and ignition beforehand, please be sure to heed the following precautions.

1. Make sure that swarf and dust do not collect on the battery.
 - During work make sure that swarf and dust do not fall on the battery.
 - Make sure that any swarf and dust falling on the power tool during work do not collect on the battery.
 - Do not store an unused battery in a location exposed to swarf and dust.
 - Before storing a battery, remove any swarf and dust that may adhere to it and do not store it together with metal parts (screws, nails, etc.).
2. Do not pierce battery with a sharp object such as a nail, strike with a hammer, step on, throw or subject the battery to severe physical shock.
3. Do not use an apparently damaged or deformed battery.
4. Do not use the battery for a purpose other than those specified.
5. If the battery charging fails to complete even when a specified recharging time has elapsed, immediately stop further recharging.
6. Do not put or subject the battery to high temperatures or high pressure such as into a microwave oven, dryer, or high pressure container.
7. Keep away from fire immediately when leakage or foul odor are detected.
8. Do not use in a location where strong static electricity generates.
9. If there is battery leakage, foul odor, heat generated, discolored or deformed, or in any way appears abnormal during use, recharging or storage, immediately remove it from the equipment or battery charger, and stop use.
10. Do not immerse the battery or allow any fluids to flow inside. Conductive liquid ingress, such as water, can cause damage resulting in fire or explosion. Store your battery in a cool, dry place, away from combustible and flammable items. Corrosive gas atmospheres must be avoided.



CAUTION

1. If liquid leaking from the battery gets into your eyes, do not rub your eyes and wash them well with fresh clean

water such as tap water and contact a doctor immediately.

If left untreated, the liquid may cause eye-problems.

2. If liquid leaks onto your skin or clothes, wash well with clean water such as tap water immediately.

There is a possibility that this can cause skin irritation.

3. If you find rust, foul odor, overheating, discolor, deformation, and/or other irregularities when using the battery for the first time, do not use and return it to your supplier or vendor.



WARNING

If an electrically conductive foreign object enters the terminals of the lithium ion battery, a short-circuit may occur resulting in the risk of fire. Please observe the following matters when storing the battery.

- Do not place electrically conductive cuttings, nails, steel wire, copper wire or other wire in the storage case.
- Either install the battery in the power tool or store by securely pressing into the battery cover until the ventilation holes are concealed to prevent short-circuits (See Fig. 4).

REGARDING LITHIUM-ION BATTERY TRANSPORTATION

When transporting a lithium-ion battery, please observe the following precautions.



WARNING

Notify the transporting company that a package contains a lithium-ion battery, inform the company of its power output and follow the instructions of the transportation company when arranging transport.

- Lithium-ion batteries that exceed a power output of 100 Wh are considered to be in the freight classification of Dangerous Goods and will require special application procedures.
- For transportation abroad, you must comply with international law and the rules and regulations of the destination country.

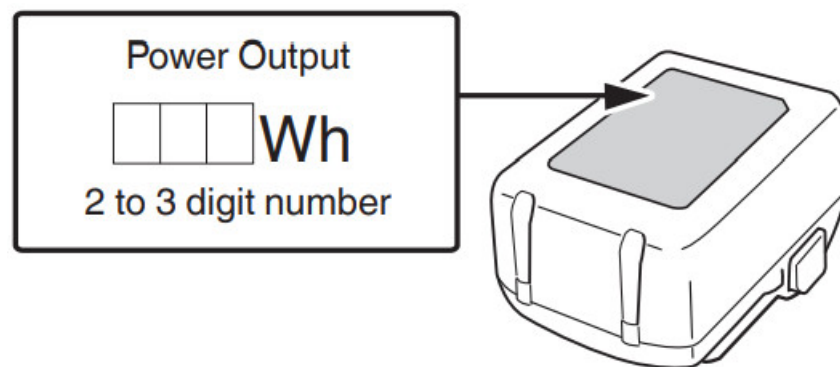


Fig. 2

SAVE THESE INSTRUCTIONS AND MAKE THEM AVAILABLE TO OTHER USERS AND OWNERS OF THIS TOOL!

FUNCTIONAL DESCRIPTION

NOTE

The information contained in this Instruction Manual is designed to assist you in the safe operation and maintenance of the power tool.

NEVER operate, or attempt any maintenance on the tool unless you have first read and understood all safety instructions contained in this manual.
Some illustrations in this Instruction Manual may show details or attachments that differ from those on your own power tool.

NAME OF PARTS

1. Cordless Multi Tool (CV18DA)

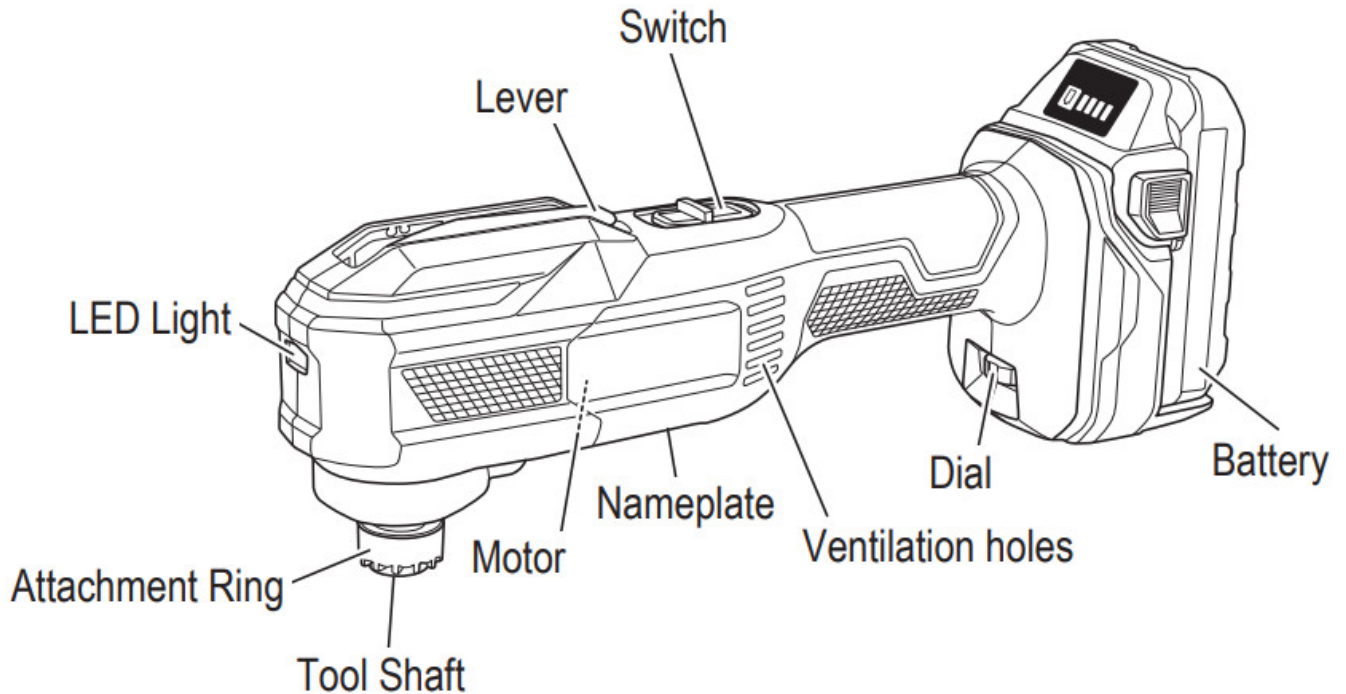
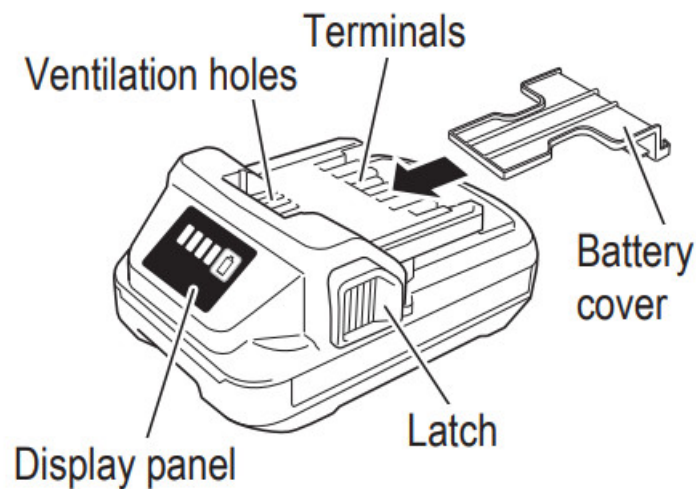


Fig. 3

2. Battery



<BSL1820M>

Fig. 4

3. Battery Charger

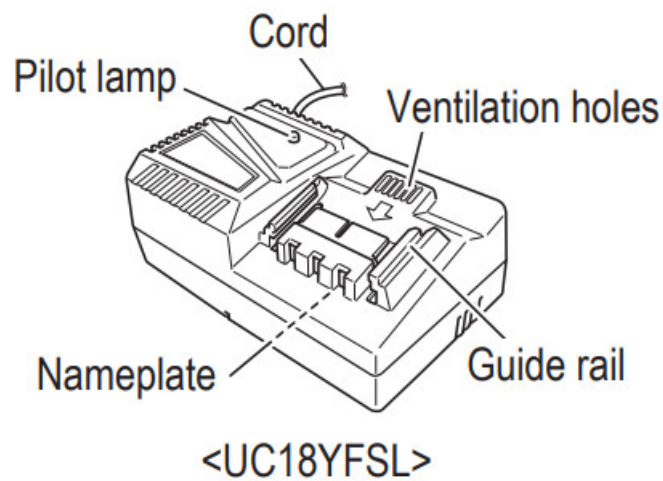


Fig. 5

SPECIFICATIONS

1. Cordless Multi Tool

| | | |
|-----------------------------|---------|-------------------------------|
| Model | | CV18DA |
| Motor | | Fan-cooled DC brushless motor |
| Voltage | | 18 V |
| No Load Vibration Frequency | | 6,000-20,000 /min |
| Oscillation angle | | 3.6 degrees |
| Overall length | | 12-7/8" (327 mm) |
| Battery | Model | BSL1820M |
| | Type | Li-ion battery |
| | Voltage | DC 18 V |
| Weight | | 3.5 lbs. (1.6 kg) |

2. Battery Charger

| | |
|---|------------------------------|
| Model | UC18YFSL |
| Input power source | Single phase: AC 120 V 60 Hz |
| Charging time (At a temperature of 68°F (20°C)) | BSL1820M: Approx. 30 min |
| Charging voltage | DC 14.4–18 V |
| Charging current | DC 3.5 A |
| Weight | 1.1 lbs. (0.5 kg) |

NOTE

The charging time may vary according to temperature and power source voltage.

ASSEMBLY AND OPERATION

APPLICATIONS

- Flush cutting and pocket cutting of various materials
- Peeling of tiles, caulking, etc.
- Polishing wood materials, etc.

REMOVAL AND INSTALLATION METHOD OF BATTERY

1. Battery removal

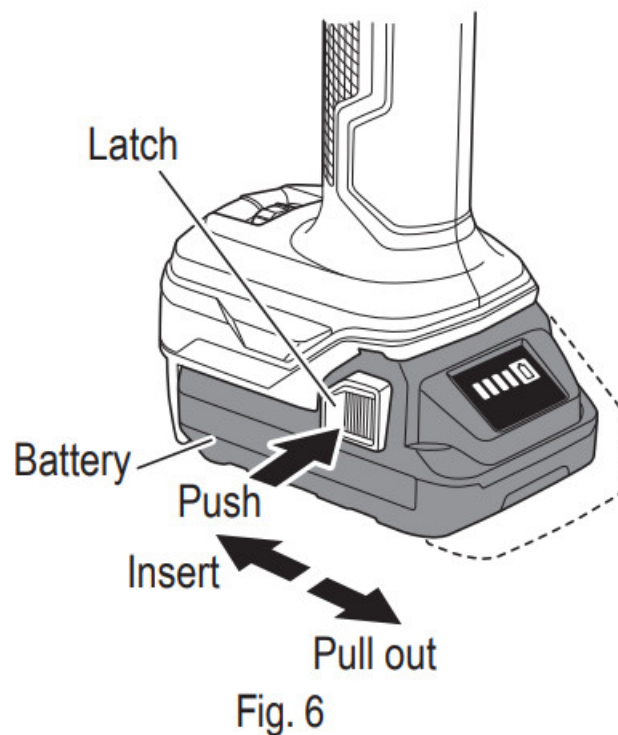
Hold the handle tightly and push the battery latch to remove the battery (see Fig. 6).

CAUTION

Never short-circuit the battery.

2. Battery installation

Insert the battery while observing its polarities (see Fig. 6).



CHARGING METHOD

NOTE

Before plugging into the receptacle, make sure the following points.

- The power source voltage is stated on the nameplate.
- The cord is not damaged.

WARNING

Do not charge at voltage higher than indicated on the nameplate.

If charged at voltage higher than indicated on the nameplate, the charger will burn out.

<UC18YFSL>

1. Connect the charger's power cord to a receptacle.

When the power cord is connected, the pilot lamp will blink in red. (See Table 2)



WARNING

Do not use the electrical cord if damaged. Have it repaired immediately.

2. Insert the battery to the battery charger.

Firmly Insert the battery into the battery charger as shown in Fig. 7.

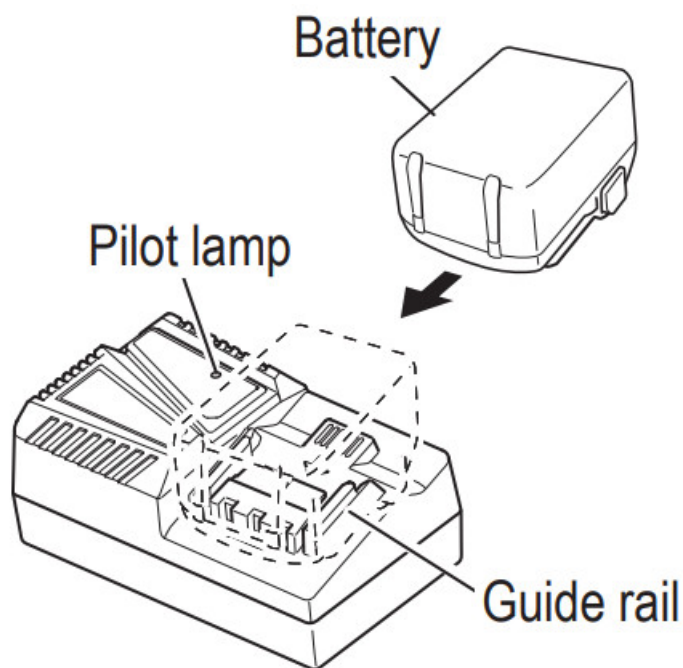


Fig. 7

3. Charging





When inserting a battery in the charger, the pilot lamp will light up continuously in red.

When the battery becomes fully recharged, the pilot lamp will blink in red. (See Table 2)

(1) Lamp indication

The indications of the pilot lamp will be as shown in Table 2, according to the condition of the battery charger or the battery.

Table 2: Indications of the pilot lamp

| | |
|---|--|
| <p>ON/OFF at 0.5 sec. intervals</p>  | <p>Before charging *1 or Charging complete</p> |
| <p>Lights continuously</p>  | <p>While charging</p> |
| <p>Lights for 1 sec. at intervals of 0.5 sec.</p>  | <p>Overheat standby *2</p> |
| <p>ON/OFF at 0.1 sec. intervals</p>  | <p>Charging impossible *3</p> |

NOTE

*1 If the red lamp continues to blink even after the charger has been attached, check to confirm that the battery has been fully inserted.

*2 Battery overheated. Unable to charge.

Although charging will start once the battery has cooled down even when left in situ, the best practice is to remove the battery and allow it to cool down in a shaded, well-ventilated location before charging.

*3 Malfunction in the battery or the charger

– Fully insert the battery.

– Check to confirm that no foreign matter is stuck to the battery mount or terminals. If there are no foreign objects, it is probable that the battery or charger is malfunctioning. Take it to your authorized Service Center.

○ If the pilot lamp does not blink in red even though the charger cord is connected to the power, it indicates that the protection circuit of the charger may be activated.

Remove the cord or plug from the power and then connect it again after 5 minutes or so. If this does not cause the pilot lamp to blink in red, please take the charger to the metabo HPT Authorized Service Center.

○ When the battery charger has been continuously used, the battery charger will be heated, thus constituting the cause of the failures. Once the charging has been completed, give 15 minutes rest until the next charging.

(2) Regarding the temperature of the rechargeable battery.

Table 3

| Rechargeable batteries | Temperatures at which the battery can be recharged |
|------------------------|--|
| BSL1820M | 32°F–122°F (0°C–50°C) |

(3) Regarding recharging time (At 68°F (20°C))

Table 4: Charging time

| Battery | Charger: UC18YFSL |
|----------|-------------------|
| BSL1820M | Approx. 30 min |

NOTE

○ The recharging time may vary according to the ambient temperature.

- If charging takes a long time
 - Charging will take longer at extremely low ambient temperatures. Charge the battery in a warm location (such as indoors).
 - Do not block the air vent. Otherwise the interior will overheat, reducing the charger's performance.
 - If the cooling fan is not operating, contact a metabo HPT Authorized Service Center for repairs.

4. Disconnect battery charger from the receptacle.



CAUTION

Do not pull the plug out of the receptacle by pulling on the cord.

Make sure to grasp the plug when removing from receptacle to avoid damaging cord.

5. Remove the battery from the battery charger.

Supporting the battery charger with hand, pull out the battery from the battery charger.

NOTE

Be sure to pull out the battery from the battery charger after use, and then keep it.

Regarding electric discharge in case of new batteries, etc.

As the internal chemical substance of new batteries and batteries that have not been used for an extended period is not activated, the electric discharge might be low when using them the first and second time. This is a temporary phenomenon, and normal time required for recharging will be restored by recharging the batteries 2–3 times.

How to make the batteries perform longer

1. Recharge the batteries before they become completely exhausted.

When you feel that the power of the tool becomes weaker, stop using the tool and recharge its battery. If you continue to use the tool and exhaust the electric current, the battery may be damaged and its life will become shorter.

2. Avoid recharging at high temperatures.

A rechargeable battery will be hot immediately after use. If such a battery is recharged immediately after use, its internal chemical substance will deteriorate, and the battery life will be shortened. Leave the battery and recharge it after it has cooled for a while.

PRIOR TO OPERATION



WARNING

To avoid serious accident, ensure the switch is in the OFF position, and pull out the battery.

1. Preparing and checking the work environment Make sure that the work site meets all the conditions laid forth in the precautions.

2. Power switch

Ensure that the power switch is in the OFF position.

If the battery is installed while the power switch is in the ON position, the power tool will start operating immediately, which could cause a serious accident.

3. Changing application tools



CAUTION

- Never touch the application tool with bare hands immediately after use. The metal is hot and can easily burn your skin.
- The lever is attached to a strong spring. Be very careful not to get your fingers caught when pushing the lever down.

NOTE

- Make sure the facing of the application tool is correct.
- Make sure the application tool is properly set on the protrusion of the attachment ring.

(1) Pull the lever up. (Fig. 8)

- Fully open the lever to the position shown in the figure.

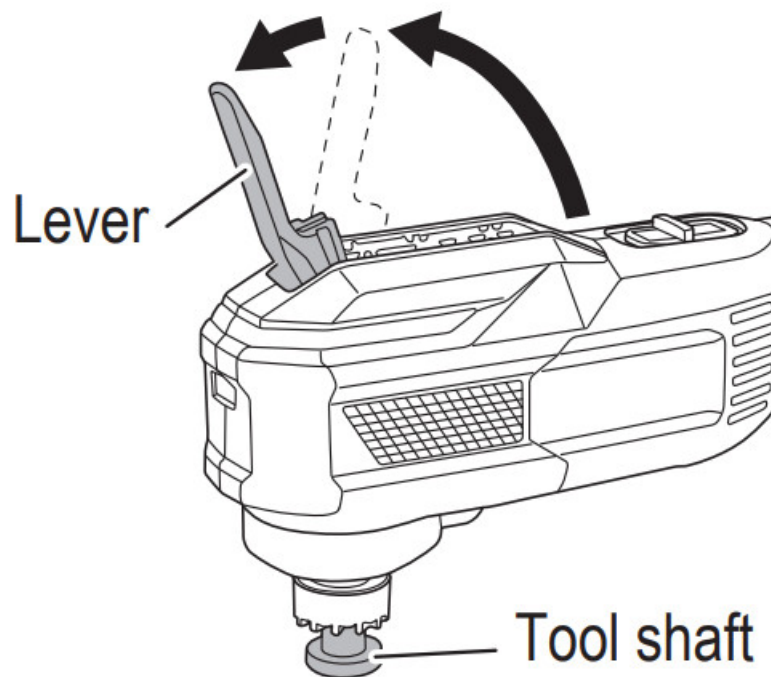


Fig. 8

(2) Pull out the tool shaft while rotating it counterclockwise. (Fig. 9)

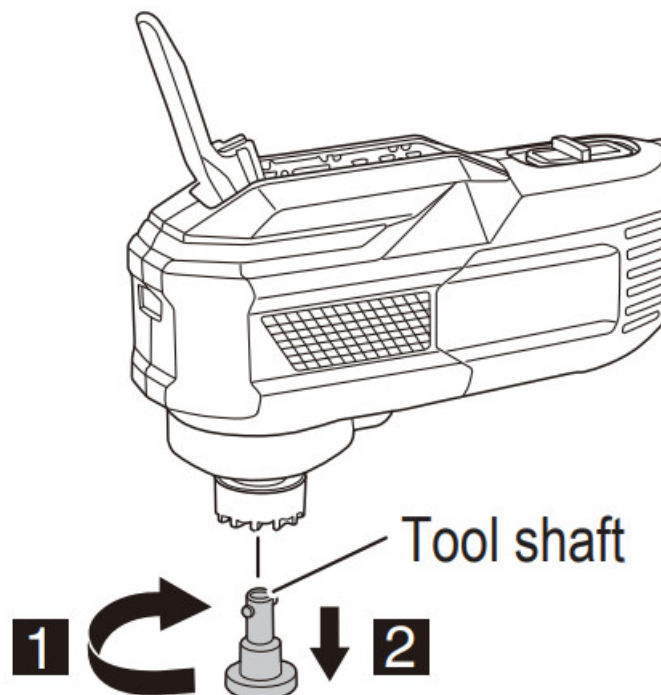


Fig. 9

(3) Attach the application tool to the attachment ring, making sure the tool's hole is fitted to the ring's protrusion. The angle of attachment for the application tool can be set in 30° increments. (Fig. 10)

(4) Firmly insert the tool shaft while rotating it clockwise. (Fig. 10)

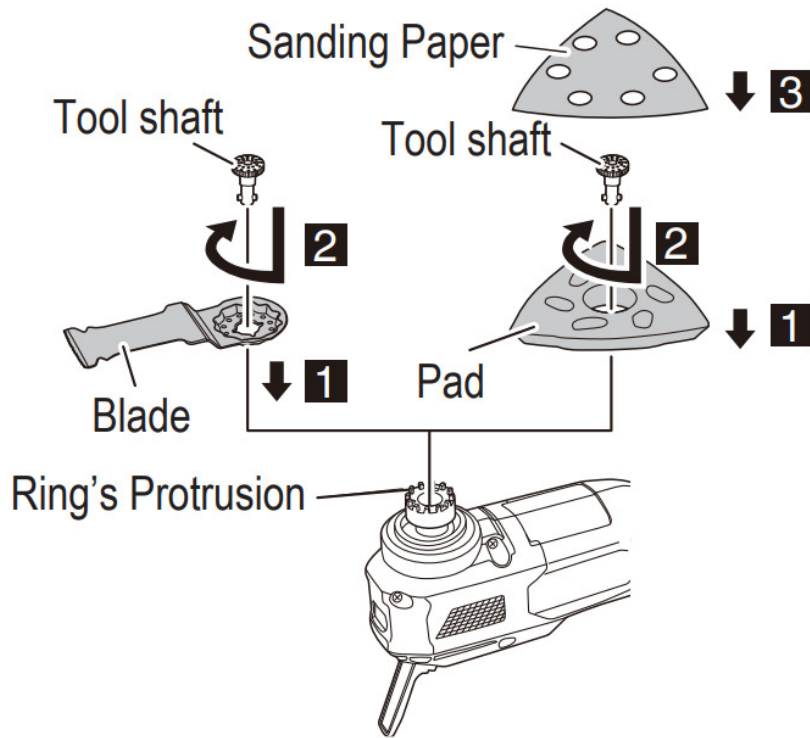


Fig. 10

(5) Push down the lever. (Fig. 11)

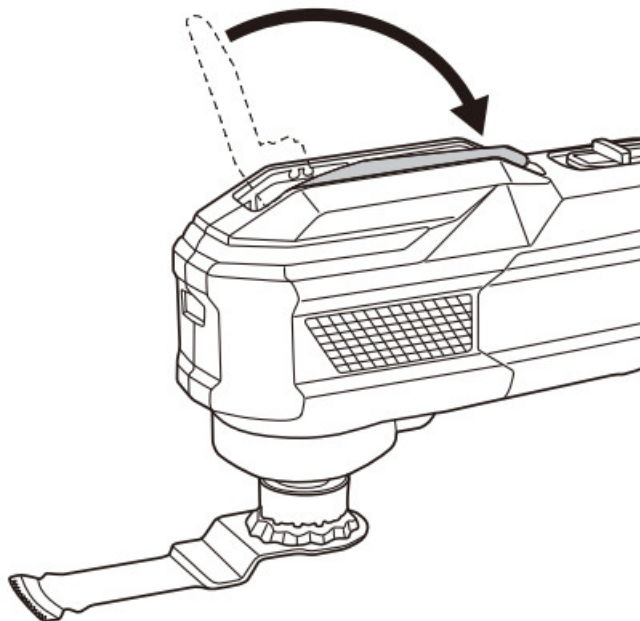


Fig. 11

(6) Align the holes when sticking the sanding paper to the sanding pad. (Fig. 10)

4. Confirm the switch is in OFF position



CAUTION

Before installing or removing the battery, turn the switch to the OFF position.

If the battery is inserted with the switch in the ON position, the motor will operate unexpectedly.

5. Check battery insertion



CAUTION

Until the battery locks in place with a little click, if not, it may accidentally fall out of the tool causing injury to you or someone around you.

OPERATION



WARNING


- Be sure to turn off the switch, then remove the battery from the tool in the following situations:
 - When stopping or ending work
 - When attaching or removing accessories or optional parts
 - When maintaining, inspecting, or storing the tool
- During operation, do not place your face or hands near the application tool of the unit.



CAUTION

- To extend the lifetime, the tool and the lithiumion battery are equipped with a protection function to stop the output. Therefore, if the tool is overloaded, the motor may stop. However, this is not the trouble but the result of protection function. In this case, release the switch of tool and eliminate the causes of overloading. Additionally, refer to “CAUTION ON LITHIUM-ION BATTERY”. If it still does not run, request repairs from a metabo HPT authorized service center.
- When switching on the tool, make sure the application tool is not in contact with the material to be processed. Failure to do so may result in injury.
- For cutting efficiency, switch the vibration frequency of the application tool according to task conditions and materials to be cut.
- Do not apply any unnecessary pressure when operating the tool. Doing so may damage the application tool.
- After use, be sure not to place the tool near chips or sawdust before it comes to a full stop as the tool may suck in those particles.

1. Switch operation

Sliding the switch towards  will switch on, simultaneously activating the LED light which will light the application tool. (Fig. 12)

To turn the main unit off, slide the switch towards .

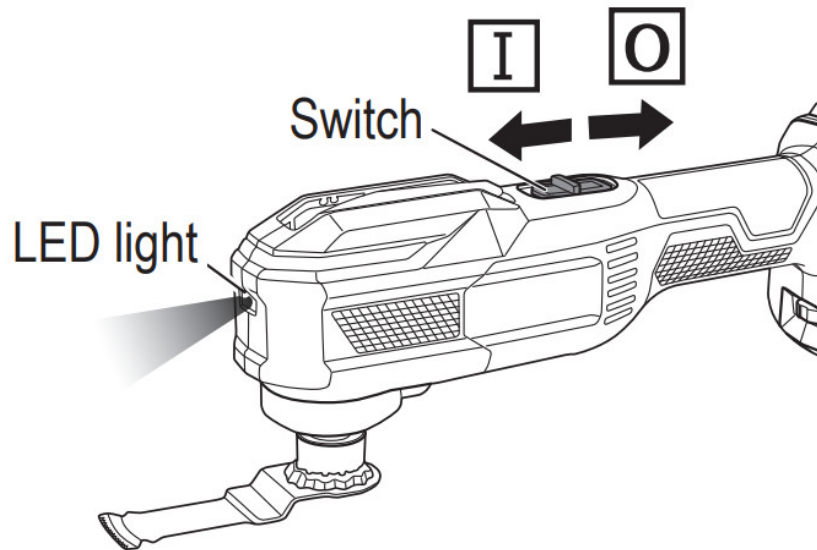


Fig. 12



CAUTION

- Do not expose directly your eye to the light by looking into the light.

If your eye is continuously exposed to the light, your eye will be hurt.

- Wipe off any dirt or grime attached to the lens of the LED light with a soft cloth, being careful not to scratch the lens.

Scratches on the lens of the LED light can result in decreased brightness.

2. Adjusting operating speed (Fig. 13)

You can change the vibration frequency between 6,000 to 20,000 /min by adjusting the dial from “1” to “6”.

Adjust the dial for the speed that best suits your task conditions and materials.

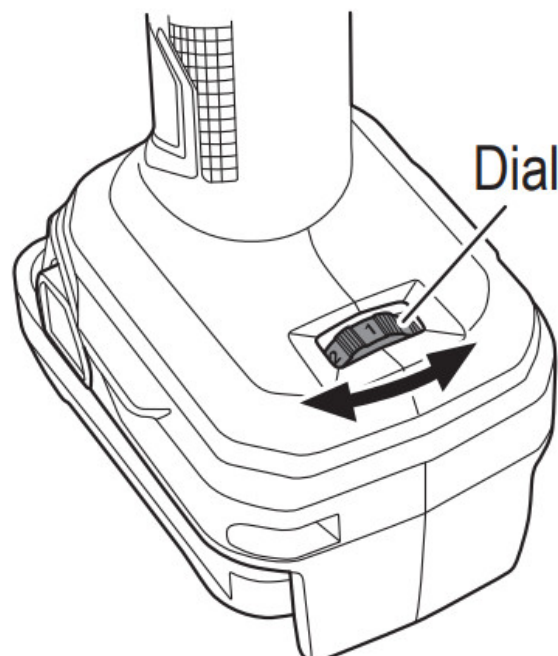


Fig. 13

3. Checking the Accessory

- Check to see if the application tool is a genuine component recommended by the manufacturer and that there are no cracks or other damage.
- Check to see if the application tool is properly installed as instructed.

4. Cutting, sawing and scraping

Sawing and scraping tasks require specific application tools (sold separately).

(1) Switch the unit on and use the dial to set the speed of the application tool.

(2) Lightly place the application tool on the material and move the application tool forward at a pace where the movement isn't slowed. (Fig. 14)

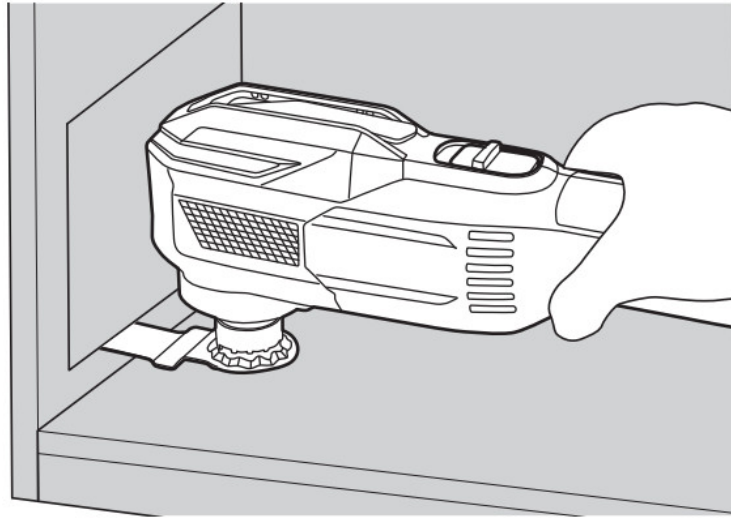


Fig. 14

5. Sanding

Sanding tasks require specific application tools (sold separately).

(1) Switch the unit on and use the dial to set the speed of the application tool.

(2) Lightly place the application tool on the material and move the application tool back and forth at a pace where the movement isn't slowed. (Fig. 15)



CAUTION

- Do not polish wood with sanding paper used for metal polishing.
- Do not use worn or clogged sanding paper.

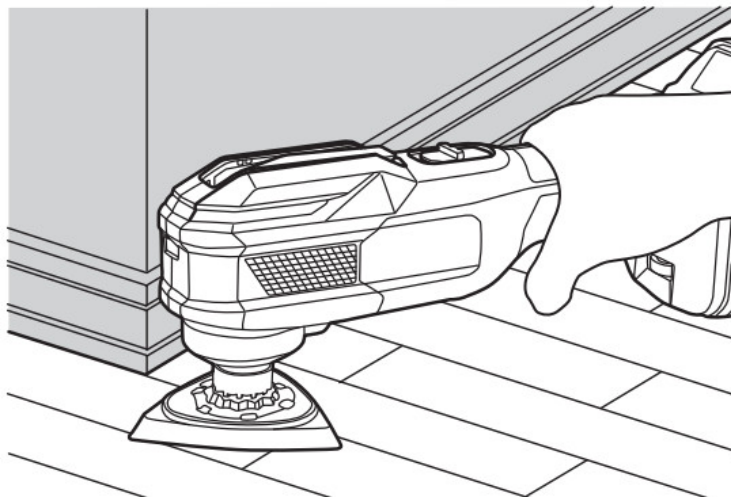


Fig. 15

Tips on SANDING

- How to place the sandpaper

Lightly press the tool to the surface to be processed; making sure that the sandpaper is evenly applied to the surface. Applying unnecessary pressure will place stress on the motor and shorten the sandpaper's life, reducing polishing efficiency.

- How to move the tool

Using your hand, repeatedly push out and pull back in a back and forth motion.

- New coarse sandpaper with rougher grit

New coarse sandpaper with rougher grit may cause the unit to jerk. During the start of the task, slightly tilt the unit towards the front or back for a while, maintaining the tilted position. The jerking will stop as the sandpaper adapts to the task.

- Until the surface being processed is polished

Use the same grade of sandpaper until the surface being processed is evenly polished. Switching to a different grade of sandpaper when the task is not completed may result in an uneven finish.

- Testing

Before starting a task, it is recommended that you check the vibration frequency using excess material.

6. Remaining battery indicator

You can check the battery's remaining capacity by pressing the remaining battery indicator switch to light the indicator lamp. (Table 5)

It is best to use the remaining battery indicator as a guide since there are slight differences such as ambient temperature and the condition of the battery.

Also, the remaining battery indicator may vary from those equipped to a tool or charger.

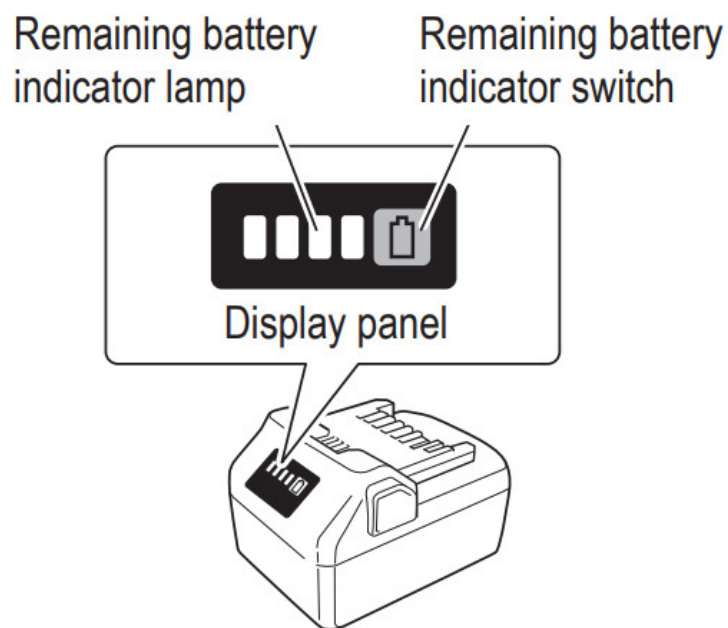









Fig. 16

| | |
|---|--|
|  | Lights; The battery remaining power is over 75%. |
|  | Lights; The battery remaining power is 50%–75%. |
|  | Lights; The battery remaining power is 25%–50%. |
|  | Lights; The battery remaining power is less than 25%. |
|  | Blinks; The battery remaining power is nearly empty. Recharge the battery soonest possible. |
|  | Blinks; Output suspended due to high temperature. Remove the battery from the tool and allow it to fully cool down. |
|  | Blinks; Output suspended due to failure or malfunction. The problem may be the battery so please contact your dealer. |

As the remaining battery indicator shows somewhat differently depending on ambient temperature and battery characteristics, read it as a reference.



CAUTION

Do not give a strong shock to the display panel or break it. It may lead to a trouble.

MAINTENANCE AND INSPECTION



WARNING

Be sure to turn off the switch and pull out the battery before doing any inspection or maintenance.

1. Inspecting the application tool

Continued use of a dull or damaged application tool will result in reduced cutting efficiency and may cause overloading of the motor. Replace the application tool with new one as soon as excessive abrasion is noted.

2. Check the Screws

Loose screws are dangerous. Regularly inspect them and make sure they are tight.



CAUTION

Using this power tool with loosened screws is extremely dangerous.

3. Inspection of terminals (Tool and battery)

Check to make sure that swarf and dust have not collected on the terminals.

On occasion check prior, during and after operation.



CAUTION

Remove any swarf or dust which may have collected on the terminals.

Failure to do so may result in malfunction.

4. Check for dust

Dust may be removed with a soft cloth or a cloth dampened with soapy water.

Do not use bleach, chlorine, gasoline or thinner, for they may damage the plastics.

5. Disposal of the exhausted battery



WARNING

Do not dispose of the exhausted battery. The battery must explode if it is incinerated. The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

6. Maintenance of the motor

The motor unit winding is the very “heart” of the power tool.

Exercise due care to ensure the winding does not become damaged and/or wet with oil or water.

7. Storage

Store the power tool and the battery in a place in which the temperature is less than 104°F (40°C) and out of reach of children.

NOTE

Storing lithium-ion batteries

Make sure the lithium-ion batteries have been fully charged before storing them.

Prolonged storage (3 months or more) of batteries with a low charge may result in performance deterioration, significantly reducing battery usage time or rendering the batteries incapable of holding a charge.

However, significantly reduced battery usage time may be recovered by repeatedly charging and using the batteries two to five times.

If the battery usage time is extremely short despite repeated charging and use, consider the batteries dead and purchase new batteries.

8. Service and repairs

All quality power tools will eventually require servicing or replacement of parts because of wear from normal use. To assure that only authorized replacement parts will be used, all service and repairs must be performed by a metabo HPT AUTHORIZED SERVICE CENTER, ONLY.



CAUTION

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

Important notice on the batteries for the metabo HPT cordless power tools

Please always use one of our designated genuine batteries. We cannot guarantee the safety and performance of our cordless power tool when used with batteries other than these designated by us, or when the battery is disassembled and modified (such as disassembly and replacement of cells or other internal parts).

ACCESSORIES



WARNING

ALWAYS use Only authorized metabo HPT replacement parts and accessories. NEVER use replacement parts or

accessories which are not intended for use with this tool. Contact metabo HPT if you are not sure whether it is safe to use a particular replacement part or accessory with your tool.
The use of any other attachment or accessory can be dangerous and could cause injury or mechanical damage.

NOTE

Accessories are subject to change without any obligation on the part of the metabo HPT.

STANDARD ACCESSORIES

| | |
|----------------|--|
| CV18DA (BA) | <div>○ Cut Saw Blade (MSD32PBC) 1</div> <div>○ Cut Saw Blade (MSW32PC)..... ... 1</div> <div>○ Battery (BSL1820M)..... ... 1</div> <div>○ Battery charger (UC18YFSL)..... . 1</div> <div>○ Battery cover (Code No. 329897) 1</div> <div>○ Bag (Code No. 375801M)..... 1</div> <div>○ Tool box (Code No. 337685) 1</div> |
| CV18DA (NN) | <div>○ Cut Saw Blade (MSD32PBC) 1</div> <div>Battery, battery charger, battery cover and bag are not contained.</div> |

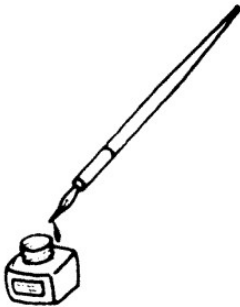
OPTIONAL ACCESSORIES (sold separately)

- 1. Battery (BSL1820M)
- 2. Battery Charger (UC18YFSL)
- 3. Application tool

For details contact metabo HPT Authorized Service Center.

NOTE

Specifications are subject to change without any obligation on the part of the metabo HPT.



WARNING:

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.



Please contact Koki Holdings America Ltd. at 1-800-59-TOOLS (toll free), or metabo HPT AUTHORIZED POWER TOOL SERVICE CENTER regarding COLLECTION.

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Documents / Resources

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|  | <p>metabo HPT CV 18DA Cordless Multi Tool [pdf] Instruction Manual CV 18DA, UC18YFSL, CV 18DA Cordless Multi Tool, Cordless Multi Tool, Multi Tool, Tool</p> |
|---|--|

References

- [User Manual](#)