MAC TOOLS

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MCM401

Fig. A

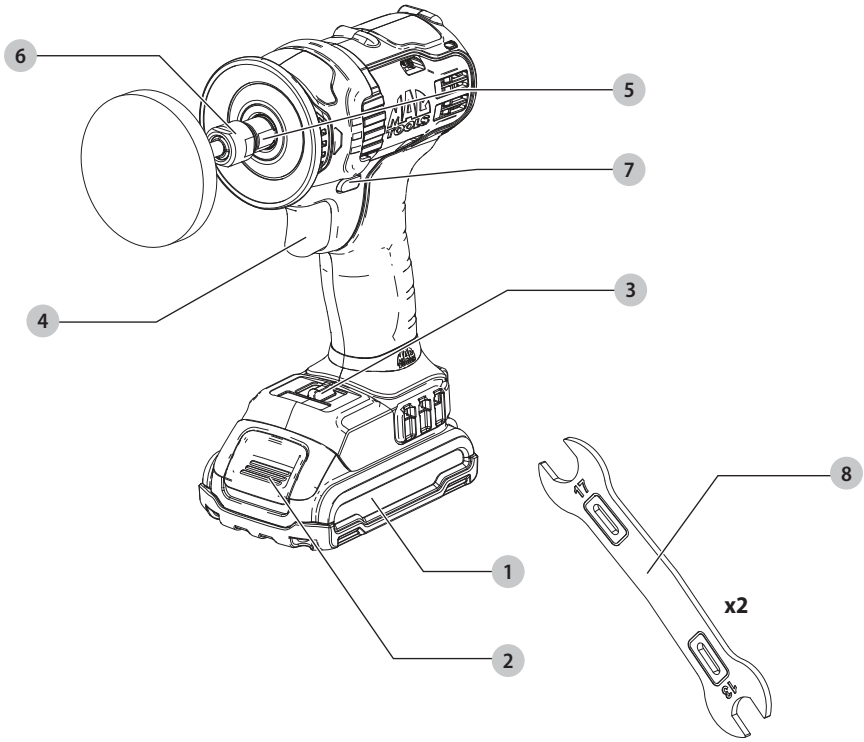


Fig. B

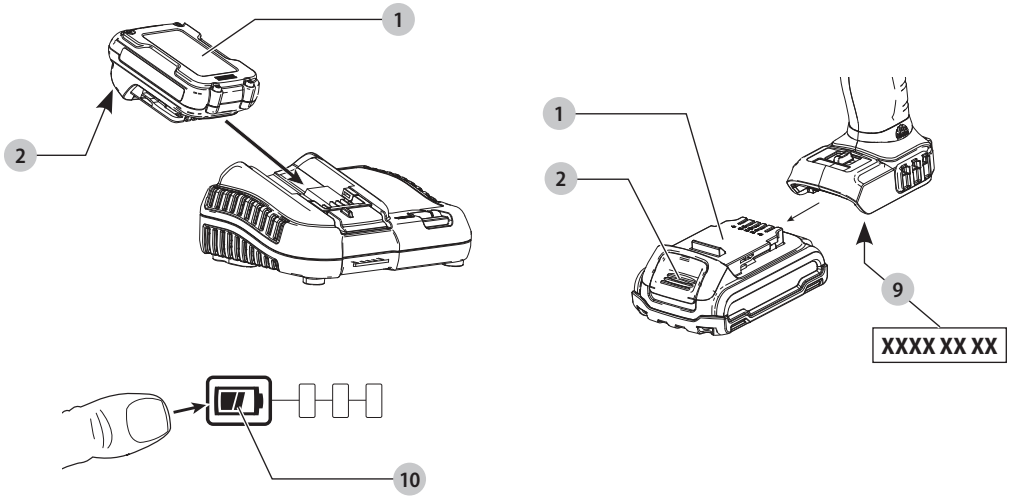


Fig. C

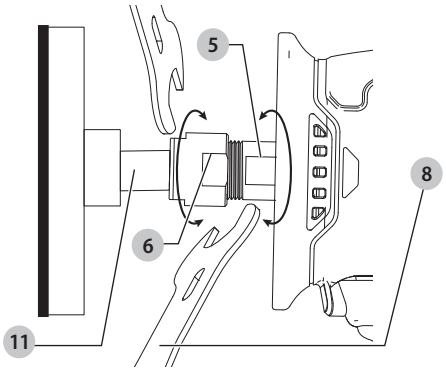


Fig. D

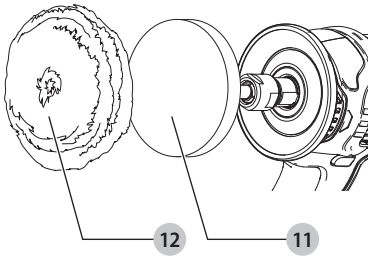
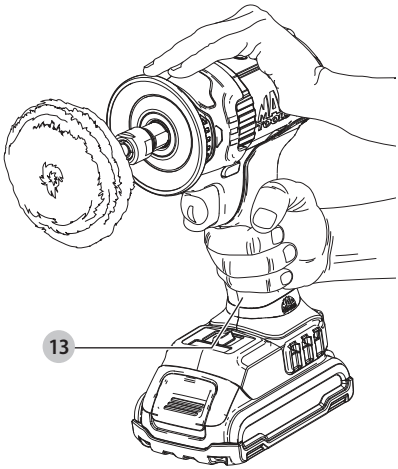


Fig. E



75 MM POLISHER / 50 MM SANDER MCM401

Congratulations!

You have chosen a Mac Tools tool. Years of experience, thorough product development and innovation make Mac Tools one of the most reliable partners for professional power tool users.

Technical Data

		MCM401
Voltage	V_{DC}	18
Type		1
Battery type		Li-Ion
No-load speed	min^{-1}	3000–9000
Rated speed	min^{-1}	9000
Max. backing pad diameter	mm	75
Spindle		M14
Weight (without battery pack)	kg	0.84

Noise values and vibration values (triax vector sum) according to EN62841-2-3:		
Sander Mode (at highest speed)		
L_{PA} (emission sound pressure level)	dB(A)	77
L_{WA} (sound power level)	dB(A)	85
K (uncertainty for the given sound level)	dB(A)	3
Polish Mode (at lowest speed)		
L_{PA} (emission sound pressure level)	dB(A)	68
L_{WA} (sound power level)	dB(A)	76
K (uncertainty for the given sound level)	dB(A)	3
Sander Mode (at highest speed)		
Vibration emission value $a_{h\,DS}$=	m/s^2	3.3
Uncertainty K =	m/s^2	1.5
Polish Mode (at lowest speed)		
Vibration emission value $a_{h\,P}$=	m/s^2	2.5
Uncertainty K =	m/s^2	1.5

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN62841 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.

WARNING: *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 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.

WARNING : *Grinding thin sheets of metal or other easily vibrating structures with a large surface can result in a total noise emission much higher (up to 15 dB) than the declared noise emission values. Such workpieces should as far as possible be prevented from emitting sound by suitable measures such as the application of heavy flexible damping mats. The increased noise emission is also to be considered for both the risk assessment of noise exposure and selecting adequate hearing protection.*

EC-Declaration of Conformity

Machinery Directive

CE

75 mm Polisher / 50 mm Sander MCM401

Mac Tools declares that these products described under ***Technical Data*** are in compliance with: 2006/42/EC, EN 62841-1:2015+A11:2022; EN 62841-2-3:2021+A11:2021.

These products also comply with Directive 2014/30/EU and 2011/65/EU. For more information, please contact Mac Tools at the following address or refer to the back of the manual.

The undersigned is responsible for compilation of the technical file and makes this declaration on behalf of Mac Tools.

Markus Rompel
Vice-President Engineering, PTE-Europa
Mac Tools, Richard-Klinger-Straße 11,
65510, Idstein, Germany
26.07.2023

DECLARATION OF CONFORMITY THE SUPPLY OF MACHINERY (SAFETY) REGULATIONS 2008

UK CA

75 mm Polisher / 50 mm Sander MCM401

MAC TOOLS declares that these products described under "technical data" are in compliance with:

The Supply of Machinery (Safety) Regulations, 2008, S.I. 2008/1597 (as amended),

EN 62841-1:2015+A11:2022; EN 62841-2-3:2021+A11:2021

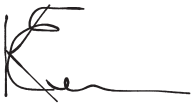
These products also conform to the following UK Regulations:

Electromagnetic Compatibility Regulations, 2016, S.I.2016/1091 (as amended).

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, S.I. 2012/3032 (as amended).

For more information, please contact MAC TOOLS at the following address or refer to the back of the manual.

The undersigned is responsible for compilation of the technical file and makes this declaration on behalf of MAC TOOLS.



Karl Evans

Vice President Professional Power Tools EANZ GTS
MAC TOOLS UK,

Meadowfield Avenue
Spennymoor, DL16 6Y
England
26.07.2023

WARNING: *To reduce the risk of injury, read the instruction manual.*

Definitions: Safety Guidelines

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.

DANGER: *Indicates an imminently hazardous situation which, if not avoided,* ***will*** *result in* ***death or serious injury****.*

WARNING: *Indicates a potentially hazardous situation which, if not avoided,* ***could*** *result in* ***death or serious injury****.*

CAUTION: *Indicates a potentially hazardous situation which, if not avoided,* ***may*** *result in* ***minor or moderate injury****.*

NOTICE: *Indicates a practice* ***not related to personal injury*** *which, if not avoided,* ***may*** *result in* ***property damage****.*

Denotes risk of electric shock.

Denotes risk of fire.

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 130 °C 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 authorised service providers.*

ADDITIONAL SPECIFIC SAFETY RULES

Safety Instructions for All Operations

a) ***This power tool is intended to function as a polisher or sander. 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.*

b) ***Operations such as grinding, wire brushing or cutting-off are not recommended to be performed with this power tool.*** *Operations for which the power tool was not designed may create a hazard and cause personal injury.*

c) ***Do not convert this power tool to operate in a way which is not specifically designed and specified by the tool manufacturer.*** *Such a conversion may result in a loss of control and cause serious personal injury.*

d) ***Do not use accessories which are not specifically designed and recommended by the tool manufacturer.*** *Just because the accessory can be attached to your power tool, it does not assure safe operation.*

e) ***The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.*** *Accessories running faster than their rated speed can break and fly apart.*

f) ***The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.*** *Incorrectly sized accessories cannot be adequately guarded or controlled.*

g) ***The dimensions of the accessory mounting must fit the dimensions of the mounting hardware of the power tool.*** *Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.*

h) ***Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheel for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute.*** *Damaged accessories will normally break apart during this test time.*

i) ***Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments.*** *The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.*

j) ***Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.*** *Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.*

k) ***Position the cord clear of the spinning accessory.*** *If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.*

l) ***Never lay the power tool down until the accessory has come to a complete stop.*** *The spinning accessory may grab the surface and pull the power tool out of your control.*

m) ***Do not run the power tool while carrying it at your side.*** *Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.*

n) ***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.*

o) ***Do not operate the power tool near flammable materials.*** *Sparks could ignite these materials.*

p) ***Do not use accessories that require liquid coolants.*** *Using water or other liquid coolants may result in electrocution or shock.*

FURTHER SAFETY INSTRUCTIONS FOR ALL OPERATIONS

Causes and Operator Prevention of Kickback

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

a) ***Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.*** *The operator can control torque reaction or kickback forces, if proper precautions are taken.*

b) ***Never place your hand near the rotating accessory.*** *Accessory may kickback over your hand.*

c) ***Do not position your body in the area where power tool will move if kickback occurs.*** *Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.*

d) ***Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.*** *Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.*

e) ***Do not attach a saw chain woodcarving blade or toothed saw blade.*** *Such blades create frequent kickback and loss of control.*

Safety Warnings Specific for Polishing Operations

a) ***Do not allow any loose portion of the polishing bonnet or its attachment strings to spin freely. Tuck away or trim any loose attachment strings.*** *Loose and*

spinning attachment strings can entangle your fingers or snag on the workpiece.

Safety Warnings Specific for Sanding Operations

a) ***Do not use excessively oversized sanding disc paper. Follow manufacturers recommendations, when selecting sanding paper.*** *Larger sanding paper extending beyond the sanding pad presents a laceration hazard and may cause snagging, tearing of the disc or kickback.*

Additional Specific Safety Instructions for Polishers

- ***Clean out your tool often, especially after heavy use.*** *Dust and grit containing metal particles often accumulate on interior surfaces and could create an electric shock hazard.*
- ***Do not operate this tool for long periods of time.*** *Vibration caused by the operating action of this tool may cause permanent injury to fingers, hands and arms. Use gloves to provide extra cushion, take frequent rest periods and limit daily time of use.*
- ***Air vents often cover moving parts and should be avoided.*** *Loose clothes, jewellery or long hair can be caught in moving parts.*
- ***Ensure the switch is in the lock-off position when not in use and before connecting to the power source or battery pack.***

Residual Risks

In spite of the application of the relevant safety regulations and the implementation of safety devices, certain residual risks cannot be avoided. These are:

- *Impairment of hearing.*
- *Risk of personal injury due to flying particles.*
- *Risk of burns due to accessories becoming hot during operation.*
- *Risk of personal injury due to prolonged use.*

SAVE THESE INSTRUCTIONS

Chargers

Mac Tools chargers require no adjustment and are designed to be as easy as possible to operate.

Electrical Safety

The electric motor has been designed for one voltage only. Always check that the battery pack voltage corresponds to the voltage on the rating plate. Also make sure that the voltage of your charger corresponds to that of your mains.

Your Mac Tools charger is double insulated in accordance with EN60335; therefore, no earth wire is required.

If the supply cord is damaged, it must be replaced only by Mac Tools or an authorised service organisation.

Mains Plug Replacement (U.K. & Ireland Only)

If a new mains plug needs to be fitted:

- *Safely dispose of the old plug.*
- *Connect the brown lead to the live terminal in the plug.*
- *Connect the blue lead to the neutral terminal.*

WARNING: *No connection is to be made to the earth terminal.*

Follow the fitting instructions supplied with good quality plugs. Recommended fuse: 3 A.

Using an Extension Cable

An extension cord should not be used unless absolutely necessary. Use an approved extension cable suitable for the power input of your charger (see ***Technical Data***). The minimum conductor size is 1 mm^2; the maximum length is 30 m.

When using a cable reel, always unwind the cable completely.

Important Safety Instructions for All Battery Chargers

SAVE THESE INSTRUCTIONS: This manual contains important safety and operating instructions for compatible battery chargers (refer to ***Technical Data***).

- *Before using charger, read all instructions and cautionary markings on charger, battery pack, and product using battery pack.*

WARNING: *Shock hazard. Do not allow any liquid to get inside charger. Electric shock may result.*

WARNING: *We recommend the use of a residual current device with a residual current rating of 30mA or less.*

CAUTION: *Burn hazard. To reduce the risk of injury, charge only Mac Tools rechargeable batteries. Other types of batteries may burst, causing personal injury and damage.*

CAUTION: *Children should be supervised to ensure that they do not play with the appliance.*

NOTICE: *Under certain conditions, with the charger plugged into the power supply, the exposed charging contacts inside the charger can be shorted by foreign material. Foreign materials of a conductive nature such as, but not limited to, steel wool, aluminum foil or any buildup of metallic particles should be kept away from charger cavities. Always unplug the charger from the power supply when there is no battery pack in the cavity. Unplug charger before attempting to clean.*

- ***DO NOT attempt to charge the battery pack with any chargers other than the ones in this manual.*** *The charger and battery pack are specifically designed to work together.*
- ***These chargers are not intended for any uses other than charging Mac Tools rechargeable batteries.*** *Any other uses may result in risk of fire, electric shock or electrocution.*
- ***Do not expose charger to rain or snow.***
- ***Pull by plug rather than cord when disconnecting charger.*** *This will reduce risk of damage to electric plug and cord.*
- ***Make sure that cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.***

- ***Do not use an extension cord unless it is absolutely necessary.*** *Use of improper extension cord could result in risk of fire, electric shock, or electrocution.*
- ***Do not place any object on top of charger or place the charger on a soft surface that might block the ventilation slots and result in excessive internal heat.*** *Place the charger in a position away from any heat source. The charger is ventilated through slots in the top and the bottom of the housing.*
- ***Do not operate charger with damaged cord or plug—*** *have them replaced immediately.*
- ***Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way.*** *Take it to an authorised service centre.*
- ***Do not disassemble charger; take it to an authorised service centre when service or repair is required.*** *Incorrect reassembly may result in a risk of electric shock, electrocution or fire.*
- *In case of damaged power supply cord, the supply cord must be replaced immediately by the manufacturer, its service agent or similar qualified person to prevent any hazard.*
- ***Disconnect the charger from the outlet before attempting any cleaning. This will reduce the risk of electric shock.*** *Removing the battery pack will not reduce this risk.*
- ***NEVER*** *attempt to connect two chargers together.*
- ***The charger is designed to operate on standard 230V household electrical power. Do not attempt to use it on any other voltage.*** *This does not apply to the vehicular charger.*

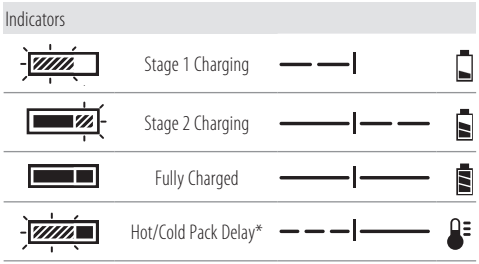
Charging a Battery

NOTE: To ensure maximum performance and life of lithium-ion battery packs, charge the battery pack fully before first use.

1. Plug the charger into an appropriate outlet before inserting battery pack.
2. Insert the battery pack ❶ into the charger, making sure the battery pack is fully seated in the charger. The red (charging) light will blink repeatedly indicating that the charging process has started.
3. The Stage 1 charging blink indicator represents the charge process that charges the majority of the battery's capacity. Stage 2 charging blink indicator represents the remainder, or top off charge process, for the battery to reach full capacity.
4. The completion of charge for Stage 1 or Stage 2 will be indicated by the stage's light remaining ON continuously. The battery pack is fully charged when both Stage 1 and Stage 2 charging lights remain ON continuously, and it may be removed and used at this time or left in the charger.

NOTE: To remove the battery pack, some chargers require the battery pack release button ❷ to be pressed.

Refer to the indicators below for the charge status of the battery pack.



*The red light will continue to blink, but a yellow indicator light will be illuminated during this operation. Once the battery pack has reached an appropriate temperature, the yellow light will turn off and the charger will resume the charging procedure.

The compatible charger(s) will not charge a faulty battery pack. The charger will indicate faulty battery by refusing to light.

NOTE: This could also mean a problem with a charger.

If the charger indicates a problem, take the charger and battery pack to be tested at an authorised service centre.

Hot/Cold Pack Delay

When the charger detects a battery pack that is too hot or too cold, it automatically starts a Hot/Cold Pack Delay, suspending charging until the battery pack has reached an appropriate temperature. The charger then automatically switches to the pack charging mode. This feature ensures maximum battery pack life.

A cold battery pack will charge at a slower rate than a warm battery pack. The battery pack will charge at that slower rate throughout the entire charging cycle and will not return to maximum charge rate even if the battery pack warms.

Electronic Protection System

Li-Ion tools are designed with an Electronic Protection System that will protect the battery pack against overloading, overheating or deep discharge.

The tool will automatically turn off if the Electronic Protection System engages. If this occurs, place the lithium-ion battery pack on the charger until it is fully charged.

Wall Mounting

Some chargers are designed to be wall mountable or to sit upright on a table or work surface. If wall mounting, locate the charger within reach of an electrical outlet, and away from a corner or other obstructions which may impede air flow. Use the back of the charger as a template for the location of the mounting screws on the wall. Mount the charger securely using drywall screws (purchased separately) at least 25.4 mm long with a screw head diameter of 7–9 mm, screwed into wood to an optimal depth leaving approximately 5.5 mm of the screw exposed. Align the slots on the back of the charger with the exposed screws and fully engage them in the slots.

Charger Cleaning Instructions

WARNING: Shock hazard. Disconnect the charger from the AC outlet before cleaning. *Dirt and grease may be removed from the exterior of the charger using a cloth or soft non-metallic brush. Do not use water or any cleaning solutions. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.*

Battery Packs

Important Safety Instructions for All Battery Packs

When ordering replacement battery packs, be sure to include catalogue number and voltage.

The battery pack is not fully charged out of the carton. Before using the battery pack and charger, read the safety instructions below. Then follow charging procedures outlined.

READ ALL INSTRUCTIONS

- ***Do not charge or use battery in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.*** *Inserting or removing the battery from the charger may ignite the dust or fumes.*
- ***Never force battery pack into charger. Do not modify battery pack in any way to fit into a non-compatible charger as battery pack may rupture, causing serious personal injury.***
- *Charge the battery packs only in Mac Tools chargers.*
- ***DO NOT*** *splash or immerse in water or other liquids.*
- ***Do not store or use the tool and battery pack in locations where the temperature may fall below 4 ˚C (34 ˚F) (such as outside sheds or metal buildings in winter), or reach or exceed 40 ˚C (104 ˚F) (such as outside sheds or metal buildings in summer).***
- ***Do not incinerate the battery pack even if it is severely damaged or is completely worn out.*** *The battery pack can explode in a fire. Toxic fumes and materials are created when lithium-ion battery packs are burned.*
- ***If battery contents come into contact with the skin, immediately wash area with mild soap and water.*** *If battery liquid gets into the eye, rinse water over the open eye for 15 minutes or until irritation ceases. If medical attention is needed, the battery electrolyte is composed of a mixture of liquid organic carbonates and lithium salts.*
- ***Contents of opened battery cells may cause respiratory irritation.*** *Provide fresh air. If symptoms persist, seek medical attention.*

WARNING: *Burn hazard. Battery liquid may be flammable if exposed to spark or flame.*

WARNING: *Never attempt to open the battery pack for any reason. If battery pack case is cracked or damaged, do not insert into charger. Do not crush, drop or damage battery pack. Do not use a battery pack or charger that has received a sharp blow, been dropped, run over or damaged in any way (e.g., pierced with a nail, hit with a hammer, stepped on). Electric shock or electrocution may result. Damaged battery packs should be returned to service centre for recycling.*

WARNING: Fire hazard. Do not store or carry the battery pack so that metal objects can contact exposed battery terminals. *For example, do not place the battery pack in aprons, pockets, tool boxes, product kit boxes, drawers, etc., with loose nails, screws, keys, etc.*

CAUTION: When not in use, place tool on its side on a stable surface where it will not cause a tripping or falling hazard. *Some tools with large battery packs will stand upright on the battery pack but may be easily knocked over.*

Transportation

WARNING: Fire hazard. *Transporting batteries can possibly cause fire if the battery terminals inadvertently come in contact with conductive materials. When transporting batteries, make sure that the battery terminals are protected and well insulated from materials that could contact them and cause a short circuit.*
NOTE: *Lithium-ion batteries should not be put in checked baggage.*

Mac Tools batteries comply with all applicable shipping regulations as prescribed by industry and legal standards which include UN Recommendations on the Transport of Dangerous Goods, International Air Transport Association (IATA) Dangerous Goods Regulations, International Maritime Dangerous Goods (IMDG) Regulations, and the European Agreement Concerning The International Carriage of Dangerous Goods by Road (ADR). Lithium-ion cells and batteries have been tested to section 38.3 of the UN Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria.

In most instances, shipping a Mac Tools battery pack will be excepted from being classified as a fully regulated Class 9 Hazardous Material. In general, only shipments containing a lithium-ion battery with an energy rating greater than 100 Watt Hours (Wh) will require being shipped as fully regulated Class 9. All lithium-ion batteries have the Watt Hour rating marked on the pack. Furthermore, due to regulation complexities, Mac Tools does not recommend air shipping lithium-ion battery packs alone regardless of Watt Hour rating. Shipments of tools with batteries (combo kits) can be air shipped as excepted if the Watt Hour rating of the battery pack is no greater than 100 Wh.

Regardless of whether a shipment is considered excepted or fully regulated, it is the shipper's responsibility to consult the latest regulations for packaging, labeling/marking and documentation requirements.

The information provided in this section of the manual is provided in good faith and believed to be accurate at the time the document was created. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with the applicable regulations.

Storage Recommendations

1. The best storage place is one that is cool and dry away from direct sunlight and excess heat or cold. For optimum battery performance and life, store battery packs at room temperature when not in use.
2. For long storage, it is recommended to store a fully charged battery pack in a cool, dry place out of the charger for optimal results.

NOTE: Battery packs should not be stored completely depleted of charge. The battery pack will need to be recharged before use.

Labels on Charger and Battery Pack

In addition to the pictographs used in this manual, the labels on the charger and the battery pack may show the following pictographs:



Read instruction manual before use.


See ***Technical Data*** for charging time.


Do not probe with conductive objects.


Do not charge damaged battery packs.


Do not expose to water.


Have defective cords replaced immediately.

Charge only between 4 ˚C and 40 ˚C.


Only for indoor use.

Discard the battery pack with due care for the environment.

Charge Mac Tools battery packs only with designated Mac Tools chargers. Charging battery packs other than the designated Mac Tools batteries with a Mac Tools charger may make them burst or lead to other dangerous situations.


Do not incinerate the battery pack.

Package Contents

The package contains:

1 Polisher
2 Collet wrenches
1 Li-Ion battery pack (C1, D1, L1, M1, P1, S1, T1, X1, Y1 models)
2 Li-Ion battery packs (C2, D2, L2, M2, P2, S2, T2, X2, Y2 models)
3 Li-Ion battery packs (C3, D3, L3, M3, P3, S3, T3, X3, Y3 models)
1 Instruction manual

NOTE: Battery packs, chargers and kitboxes are not included with N models. Battery packs and chargers are not included with NT models. B models include Bluetooth® battery packs.

NOTE: The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth® SIG, Inc. and any use of such marks by Mac Tools is under license. Other trademarks and trade names are those of their respective owners.

- *Check for damage to the tool, parts or accessories which may have occurred during transport.*
- *Take the time to thoroughly read and understand this manual prior to operation.*

SAVE THESE INSTRUCTIONS

Battery Type

These battery packs may be used:

Battery	(kg)	Battery	(kg)
DCB546	1.08	**DCB187**	0.54
DCB547/G	1.46	**DCB189**	0.54
DCB549	2.12	**DCBP034/G**	0.32
DCB181	0.35	**DCBP518/G**	0.75
DCB182	0.61	**MB200**	0.64
DCB183/B/G	0.40	**MBR183**	0.40
DCB184/B/G	0.62	**MBR184**	0.70
DCB185	0.35		

Markings on Tool

The following pictograms are shown on the tool:


Read instruction manual before use


Wear ear and eye protection


Always wear a dust mask

Date Code Position (Fig. B)

The production date code **9** consists of a 4-digit year followed by a 2-digit week and is extended by a 2-digit factory code.

Description (Fig. A)

WARNING: *Never modify the power tool or any part of it. Damage or personal injury could result.*

1 Battery pack
2 Battery release button
3 Speed control switch
4 Variable speed trigger switch
5 Spindle
6 Spindle collet
7 Trigger lock
8 Collet wrench

Intended Use

Your MCM401 spot polisher has been designed for polishing painted or unfinished metal, fiberglass, and composite surfaces in professional applications. Common examples of use include, but are not limited to: auto/marine/RV/motorcycle detailing and finish correction, boat construction and repair, and metal finishing.

DO NOT use under wet conditions or in the presence of flammable liquids or gases.

This spot polisher is a professional power tool.

DO NOT let children come into contact with the tool. Supervision is required when inexperienced operators use this tool.

- **Young children and the infirm.** This appliance is not intended for use by young children or infirm persons without supervision.
- This product is not intended for use by persons (including children) suffering from diminished physical, sensory or mental abilities; lack of experience, knowledge or skills unless they are supervised by a person responsible for their safety. Children should never be left alone with this product.

ASSEMBLY AND ADJUSTMENTS

WARNING: To reduce the risk of serious personal injury, turn tool off and disconnect battery pack before making any adjustments or removing/ installing attachments or accessories. *An accidental start-up can cause injury.*

WARNING: *Use only Mac Tools battery packs and chargers.*

Inserting and Removing the Battery Pack from the Tool (Fig. B)

NOTE: Make sure your battery pack 1 is fully charged.

To Install the Battery Pack into the Tool Handle

1. Align the battery pack 1 with the rails inside the tool's handle (Fig. B).
2. Slide it into the handle until the battery pack is firmly seated in the tool and ensure that you hear the lock snap into place.

To Remove the Battery Pack from the Tool

1. Press the battery release button 2 and firmly pull the battery pack out of the tool handle.
2. Insert battery pack into the charger as described in the charger section of this manual.

Fuel Gauge Battery Packs (Fig. B)

Some Mac Tools battery packs include a fuel gauge which consists of three green LED lights that indicate the level of charge remaining in the battery pack.

To actuate the fuel gauge, press and hold the fuel gauge button 10. A combination of the three green LED lights will illuminate designating the level of charge left. When the level of charge in the battery is below the usable limit, the fuel gauge will not illuminate and the battery will need to be recharged.

NOTE: The fuel gauge is only an indication of the charge left on the battery pack. It does not indicate tool functionality and is subject to variation based on product components, temperature and end-user application.

Mounting the Backing Pad into the Spindle (Fig. C)

1. With the spindle collet 6 loosened, insert the backing pad mandrel 11 through the collet and into the spindle 5.
2. While holding the spindle in place with one of the supplied wrenches, use the other collet wrench 8 to tighten the collet onto the spindle.

NOTE: To remove the backing pad from the spindle, loosen the collet using both wrenches.

Attaching and Removing Polishing Pad or Surfacing Disc (Fig. D)

Hook and loop pads and discs 12 with a diameter of up to 75 mm may be used with the MCM401. They can be adhered easily by pressing the back of the accessory to the hook and loop surface of the backing pad mandrel 11.

Prior to Operation

1. Be sure the polishing pad is mounted correctly.
2. Make sure the pad rotates in the direction of the arrows on the accessory and the tool.
3. Make sure any dirt is washed off the workpiece surface.

OPERATION

Instructions for Use

WARNING: *Always observe the safety instructions and applicable regulations.*

WARNING: To reduce the risk of serious personal injury, turn tool off and disconnect battery pack before making any adjustments or removing/ installing attachments or accessories. *An accidental start-up can cause injury.*

Proper Hand Position (Fig. E)

WARNING: *To reduce the risk of serious personal injury,* ***ALWAYS*** *use proper hand position as shown.*

WARNING: *To reduce the risk of serious personal injury,* ***ALWAYS*** *hold securely in anticipation of a sudden reaction.*

Proper hand position requires one hand on the main handle 13 and one hand on the top of the polisher.

Variable Speed Trigger Switch (Fig. A)

The variable speed trigger switch permits speed control from 0 to 9000 RPM.

To turn the tool on, squeeze the variable speed trigger switch 4. The farther you depress the trigger, the faster it will operate. Releasing the trigger turns the tool off.

Use lower speeds for applying compounds, and higher speeds for polishing.

Speed Control Switch (Fig. A)

The three-speed feature of your tool allows you to change speed for greater versatility.

- To select Speed 1, slide the gear speed control switch 3 all the way to the left.
- To select Speed 2, slide the gear speed control switch to the middle position.
- To select Speed 3, slide the gear speed control switch all the way to the right.

NOTE: Do not change speed when the tool is running. Always allow the tool to come to a complete stop before changing

speed. If you have trouble changing speed, depress and release the trigger switch and try again.

Tool Settings	RPM
Speed 1	0–3000
Speed 2	0–5000
Speed 3	0–9000

Polishing (Fig. E)

1. Without turning the tool on, grasp the main handle of the tool and pick it up.
2. Keep the tool away from your body and depress the variable speed trigger switch.
3. Make sure you have a firm grip on the handle.
4. Move the tool evenly over the surface of the workpiece, without applying pressure.
5. Switch off the machine before taking the tool from the surface.
6. Check your work at short intervals.

Use utmost care when power polishing around or over sharp objects and contours. It is very important to use the correct pressure while polishing various sections of an automobile body. For example, light pressure should be applied when polishing over sharp edges of body panels, or over edges of the rain gutter along the top.

WARNING: *High-speed rubbing action of the polishing bonnet upon the workpiece surface can build a static charge on the metal portions of this tool, resulting in a static shock when touched.*

MAINTENANCE

Your Mac Tools power tool has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper tool care and regular cleaning.

WARNING: To reduce the risk of serious personal injury, turn tool off and disconnect battery pack before making any adjustments or removing/ installing attachments or accessories. *An accidental start-up can cause injury.*

The charger and battery pack are not serviceable.

Lubrication

Your power tool requires no additional lubrication.

Cleaning

WARNING: *Blow dirt and dust out of the main housing with dry air as often as dirt is seen collecting in and around the air vents. Wear approved eye protection and approved dust mask when performing this procedure.*

WARNING: *Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the materials used in these parts. Use a cloth dampened only with water and mild soap. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.*

Optional Accessories

WARNING: *Since accessories, other than those offered by Mac Tools, have not been tested with this product, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only Mac Tools recommended accessories should be used with this product.*

Consult your dealer for further information on the appropriate accessories.

ACCESSORIES CHART

Accessory	Purpose
3" Backing pad	1/4" mandrel hook and loop for polishing accessories
White foam pad	Soft buffing for applying wax/ polish
Yellow foam pad	Medium buffing for cutting compounds
2" Roloc backing pad	1/4" mandrel screw-in for quick change of sanding and surface prep accessories
2" sanding discs (40, 60, 80 grit)	Grits of 40, 60, and 80 for coarse sanding applications
2" 'Scotch-Brite' discs surface prep discs	Aggressive action to remove debris and prep for sanding

Protecting the Environment

Separate collection. Products and batteries marked with this symbol must not be disposed of with normal household waste.

Products and batteries contain materials that can be recovered or recycled, reducing the demand for raw materials. Please recycle electrical products and batteries according to local provisions. Further information is available at **www.2helpU.com**.

Rechargeable Battery Pack

This long life battery pack must be recharged when it fails to produce sufficient power on jobs which were easily done before. At the end of its technical life, discard it with due care for our environment:

- Run the battery pack down completely, then remove it from the tool.
- Li-Ion cells are recyclable. Take them to your dealer or a local recycling station. The collected battery packs will be recycled or disposed of properly.

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