OLYMPIATOOLS®
GOOD QUALITY. GREAT VALUE.

USER MANUAL

X20s™ BATTERY SYSTEM

ANGLE GRINDER 1x 2AH

X20SAG1

UK CA CE

CONTENTS

SAFETY INFORMATION

IMPORTANT: To reduce risk of injury, please read this user guide before assembly.

SAFETY WARNING SYMBOLS

The following warning symbols appear throughout this user guide and indicate the appropriate safety measures you should take when assembling and operating the angle grinder.

⚠ WARNING!

This symbol marks a point of safety, indicating a warning. Ignoring this safety symbol could result in an accident to yourself or others. To limit the risks of injury, fire or electrocution, always follow the recommendations indicated.

Safety warning symbols - Battery charger

Protection Class II (double insulated)

Indicates T3.15A time lag fuse with rated current of 3.15A

For indoor use only

Safety warning symbols - Battery

Do not burn

Do not expose to rain or water

Do not expose the battery to sunlight or excessive temperatures. Do not charge or store the battery where the temperature is below 0°C or greater than 45°C.

Positive terminal

Negative terminal

Olympia Tools provides a facility for the collection and recycling of rechargeable LI-ION batteries once they have reached the end of their working life. To dispose of your battery please return to any Olympia Tools stockist who will collect on our behalf. Alternatively consult your local waste authority for information regarding available recycling and/or disposal options. Your battery will then be recycled or dismantled in order to reduce the impact on the environment. Battery packs can be hazardous for the environment and for human health since they contain hazardous substances.

Compliance and recycling symbols

Complies with all relevant UK regulations

Complies with relevant European regulations

Waste electrical products must not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.

SAFETY INFORMATION

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SAFETY WARNINGS - GENERAL POWER TOOLS

⚠ WARNING!

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

Save all warnings and instructions for future reference.

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

Work area safety

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **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.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical safety

1. **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.
2. **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.
3. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
4. **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.
5. **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.
6. **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

Personal safety

1. **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.
2. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

3. **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.

4. **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.
5. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
6. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
7. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

Power tool use and care

1. **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.
2. **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.
3. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. **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.
5. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

Battery tool use and care

1. **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.
2. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **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.
4. **Under abusive conditions, liquid may be ejected from the battery; avoid contact. I**f contact accidentally occurs, flush with water. **I**f liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.

Service

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.

SAFETY INFORMATION

IMPORTANT: To reduce risk of injury, please read this user guide before assembly.

SAFETY WARNINGS - ALL OPERATIONS

Common warnings for grinding and cutting operations

1. **This power tool is intended to function as a grinder or cutting tool. 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.
2. **Operations such as sanding, wire brushing or polishing 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.
3. **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.
4. **The rated speed of the accessory must be equal to the maximum speed marked on the power tool.** Accessories running faster than their rated speed can break and fly apart.
5. **The outside diameter and the thickness of your accessory must be within the capacity rating of the power tool. I**ncorrectly sized accessories cannot be adequately guarded or controlled.
6. **Threaded mounting of accessories must match the grinder spindle thread. For accessories mounted by flanges, the arbour hole of the accessory must fit the locating diameter of the flange.** 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.
7. **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks or cracked wires. I**f the 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 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.
8. **Wear personal protective equipment. Depending on the application, use face shield, safety goggles or safety glasses.** As appropriate, wear a dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments. 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 the operation. Prolonged exposure to high intensity noise may cause hearing loss.
9. **Keep bystanders a safe distance away from the work area. Anyone entering the work area must wear personal protective equipment.** Fragments of the workpiece or of a broken accessory may fly away and cause injury beyond the immediate area of operation.
10. **Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessories contacting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.
11. **Position the cord clear of the spinning accessory. I**f you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.

12. **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.
13. **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.
14. **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.
15. **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.
16. **Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.
17. **Your hand must hold on to the handle when you are working.** Always use the side handles supplied with the tool. Loss of control can cause personal injury.

Kickback and related warnings

1. 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 kickback. The wheel may either jump toward or away from the operator, depending on the 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.

2. **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use a side handle, if provided, for maximum control over kickback or torque reaction during start-up.** The operator can control torque reactions or kickback forces, if proper precautions are taken.
3. **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.
4. **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.
5. **Use special care when working in 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.
6. **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

Specific warnings for grinding and cutting operations

1. **Use only wheel types that are recommended for your power tool and the specific guard designed for the selected wheel.** Wheels for which the power tool was not designed cannot be adequately guarded and are unsafe.
2. **The grinding surface of the depressed centre wheel must be mounted inside the guard lip.** An improperly mounted wheel that projects outside the guard lip cannot be adequately protected.
3. **The guard must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator.** The guard helps to protect operator from broken wheel fragments and accidental contact with wheel and sparks that could ignite clothing.

4. **Wheels must be used only for recommended applications. For example: do not grind with the side of cutting wheel.** Abrasive cutting wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.
5. **Always use undamaged wheel flanges that are of the correct size and shape for the selected wheel.** Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage. Flanges for cutting wheels may be different from grinding wheel flanges.
6. **Do not use worn down wheels from larger power tools.** Wheels intended for larger power tools are not suitable for the higher speed of a smaller power tool and may burst.

Specific warnings for cutting operations

1. **Do not "jam" the cutting wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.** Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage.
2. **Do not position your body in line with and behind the rotating wheel.** When the wheel, at the point of operation, is moving away from your body, the possible kickback may propel the spinning wheel and the power tool directly at you.
3. **When the wheel is binding or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop.** Never attempt to remove the cutting wheel from the cut while the wheel is in motion otherwise kickback may occur. Investigate and take corrective action to eliminate the cause of wheel binding.
4. **Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully recentre the cut.** The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.
5. **Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback. Large workpieces tend to sag under their own weight.** Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.
6. **Use extra caution when making a "pocket cut" into existing walls or other blind areas.** The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.

SAFETY INFORMATION

IMPORTANT: To reduce risk of injury, please read this user guide before assembly.

SAFETY WARNINGS - BATTERY PACK

1. **Do not dismantle, open or shred cells or battery pack.**
2. **Do not short-circuit a battery pack. Do not store battery packs haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by conductive materials.** 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.
3. **Do not expose battery pack to heat or fire. Avoid storage in direct sunlight.**
4. **Do not subject battery pack to mechanical shock.**
5. **In the event of battery leaking, do not allow the liquid to come into contact with the skin or eyes.** If contact has been made, wash the affected area with copious amounts of water and seek medical advice.

6. **Seek medical advice immediately if a cell or battery pack has been swallowed.**
7. **Keep battery pack clean and dry.**
8. **Wipe the battery pack terminals with a clean dry cloth if they become dirty.**
9. **Battery pack needs to be charged before use. Always refer to this user guide and use the correct charging procedure.**
10. **Do not maintain battery pack on charge when not in use.**
11. **After extended periods of storage, it may be necessary to charge and discharge the battery pack several times to obtain maximum performance.**
12. **Battery pack gives its best performance when it is operated at normal room temperature (20 °C ± 5 °C).**
13. **When disposing of battery packs, keep battery packs of different electrochemical systems separate from each other.**
14. **Recharge only with the charger specified by manufacturer.** Do not use any charger other than that specifically provided for use with the equipment. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
15. **Do not use any battery pack which is not designed for use with the equipment.**
16. **Keep battery pack out of the reach of children.**
17. **Retain this user guide for future reference.**
18. **Remove the battery from the equipment when not in use.**
19. **Dispose of properly.**

SAFETY INFORMATION

IMPORTANT: To reduce risk of injury, please read this user guide before assembly.

SAFETY WARNINGS - BATTERY PACK CHARGER

⚠ WARNING!

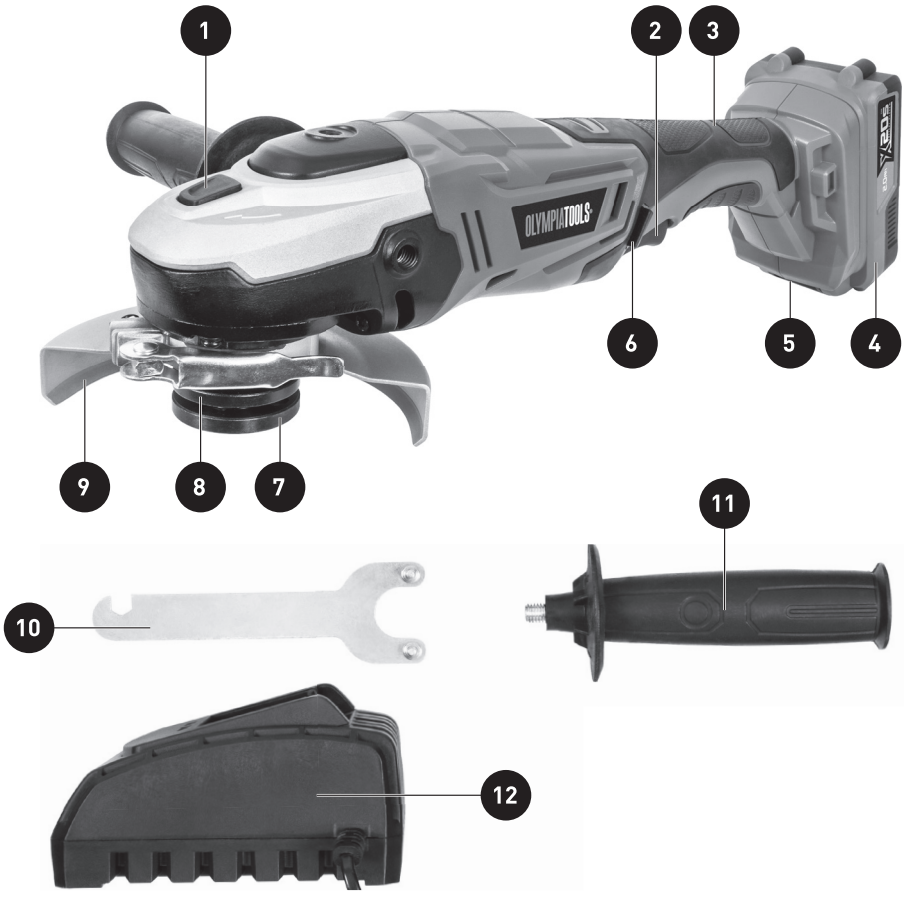
Read all safety warnings and instructions. Failure to follow warnings and instructions may result in electric shock, fire and/or serious injury.
Save all warnings and instructions for future reference.

This appliance can only be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

1. Before charging, read the instructions.
2. After charging, disconnect the battery charger from the supply mains. Then remove the chassis connection and then the battery connection.
3. Do not charge a leaking battery.
4. Do not use chargers for works other than those for which they are designed.

5. Before charging, ensure charger matches the local AC supply.
6. For indoor use, do not expose to rain.
7. The charging device must be protected from moisture.
8. Do not use the charging device in the open.
9. Do not short out the contacts of battery or charger.
10. Respect the polarity "+/-" when charging.
11. Do not open the unit and keep out of the reach of children.
12. Do not charge the batteries of other manufactures or ill-suited models.
13. Ensure that the connection between the battery charger and battery is correctly positioned and is not obstructed by foreign bodies.
14. Check battery charger's slots are free of foreign objects and protect against dirt and humidity. Store in a dry and frost-free place.
15. When charging batteries, ensure that the battery charger is in a well-ventilated area and away from inflammable materials. Batteries can get hot during charging. Do not overcharge batteries. Ensure that batteries and chargers are not left unsupervised during charging.
16. Do not recharge non-rechargeable batteries, as they can overheat and break.
17. Longer life and better performance can be obtained if the battery pack is charged when the air temperature is between 18ºC and 24ºC. Do not charge the battery pack in air temperatures below 4ºC, or above 40ºC. This is important as it can prevent serious damage to the battery pack.
18. Charge only battery packs of the same model provided by manufacturer and of models recommended by manufacturer.

IN THE BOX



1. Spindle lock button
2. On/off switch
3. Hand grip area
4. 1x X20S™ 2.0Ah battery
5. Battery pack release button
6. Safety lock-off button
7. Outer flange
8. Inner flange
9. Quick release disc guard (for grinding)
10. Wrench
11. Side handle
12. 1x X20S™ Fast charger

OPERATION INSTRUCTIONS

IMPORTANT: To reduce risk of injury, please read this user guide before use.

Intended use

This tool is intended for cutting, roughing and brushing metal and stone materials without using water. For cutting metal, a special protection guard must be used (not supplied).

Charging the battery pack (See fig. A)

Before putting into operation charge the tool or battery pack.

1. **Do not use any charger other than that specifically provided for use with the equipment.**
2. **If the battery pack is very hot you must remove your battery pack from the charger and allow time for the battery to cool down before recharging.**
3. **The battery in your new tool is not charged when it leaves the plant. Therefore it must be fully charged before using the first time.**
4. **Please charge the battery to reach full or no less than half charge before storage. If the tool will not be used for long periods of time, charge the battery every 3-6 months.**

Plug the charger into a suitable power outlet before inserting the battery. Slide the battery pack into the charger ensuring that it is firmly seated and locked in place. The red (charging) light will illuminate and indicates that the charging process is in progress. A green light indicates that charging is complete. Remove the plug from the power outlet and slide the battery pack from the charger. The battery is ready for use.

⚠ WARNING!

When charging, the charger and battery may become warm to the touch, this is normal and does not indicate a problem.

When battery charge runs out after continuous use or exposure to direct sunlight or heat, allow time for the tool to cool down before re-charging to achieve the full charge.

Fig. A

Installing and removing the battery pack (See fig. B)

⚠ WARNING!

Before inserting or removing the battery pack, always make sure the On/off switch (2) is locked by checking the safety lock-off button (6) is in the centre position.

1. **To remove the battery pack**
   Press the battery pack release button (5) firmly first and then slide the battery pack out from your tool.
2. **To install the battery pack**
   Slide the fully charged battery pack onto the tool with sufficient force until it clicks into position.

Fig. B

Assembly

⚠ WARNING!

Remove the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.

Installing and adjusting the wheel guard for grinding or cutting (See fig. C)

⚠ WARNING!

Remove the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.

For work with grinding or cutting discs, the wheel guard must be mounted.

Disc guard for grinding

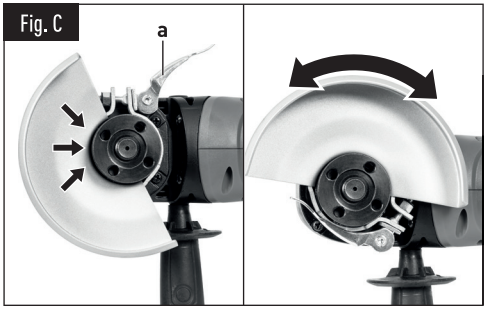
The protrusions on the disc guard (9) ensure that only a guard that fits the tool type can be mounted. Loosen the guard clamping lever (a). Place the disc guard with protrusions into the notches on the collar of the gear housing and rotate to the required working position. Then tighten the guard clamping lever.

Disc guard for cutting

⚠ WARNING!

For cutting metal, always use a special protection guard (not supplied). The wheel guard for cutting is mounted in the same manner as the wheel guard for grinding.

Fig. C



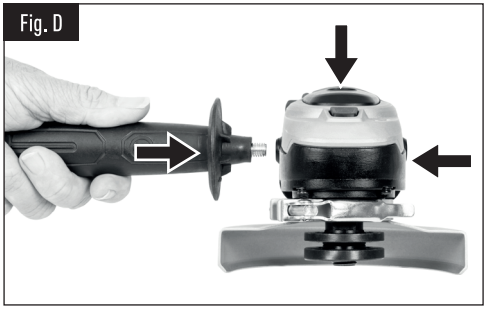
Installing and adjusting side handle (See fig. D)

You have the option of three working positions to provide the safest and most comfortable control of your angle grinder. The handle is screwed clockwise into either hole on the sides or top of the gear housing.

⚠ WARNING!

This handle should be used at all times to maintain complete control of the tool.

Fig. D



Fitting disc (See fig. E1, E2, E3)

⚠ WARNING!

Remove the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.

Put the inner flange onto the tool spindle. Ensure it is located on the two flats of spindle. Place the disc on the tool spindle and inner flange. Ensure it is correctly located. Fit the threaded outer flange making sure it is facing in the correct direction for the type of disc fitted. For grinding discs, the flange is fitted with the raised portion facing towards the disc.

For cutting discs, the flange is fitted with the raised portion facing away from the disc (See fig. E1, E2).

Press in the spindle lock button (1) and rotate the spindle by hand until it is locked. Keeping the lock button pressed in, tighten the outer flange with the wrench provided (10), (See fig. E3).

⚠ WARNING!

Check that the grinding wheel is correctly mounted and that it can turn freely, make sure that the grinding wheel does not catch against the protecting guard or other parts.

Fig. E1

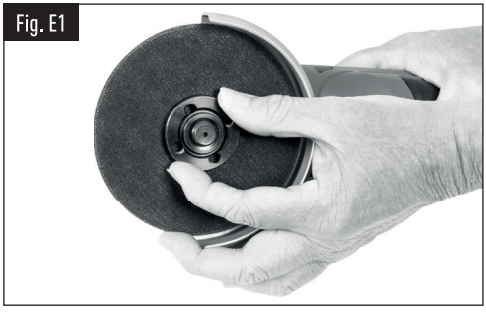


Fig. E2

Fig. E3

Spindle lock button

Clean the grinder spindle and all parts to be mounted. For clamping and loosening the grinding wheel, lock the grinder spindle with the spindle lock button.

⚠ WARNING!

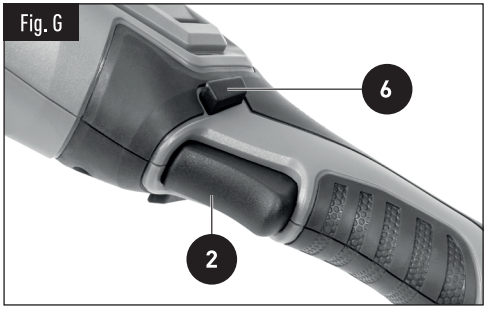
Actuate the spindle lock button only when the grinder spindle is at a standstill!

Hand grip areas (See fig. F)

Always hold your angle grinder firmly with both hands when operating.

Fig. F

Fig. G



Safety lock-off switch (See fig. G)

⚠ WARNING!

Before inserting or removing the battery pack, always make sure the On/off switch (3) is locked by checking the safety lock-off button (4) is in the centre position.

⚠ WARNING!

After operation, always switch off the tool and wait until the wheel has come to a complete stop before putting the tool down.

Switching on:

1. Unlock the On/off switch (2) by pushing the safety lock-off button (6) either to the left or right. The On/off switch is locked when the lock button is in the centre position.
2. Turn on the angle grinder by depressing the On/off switch.

Switching off:

Turn off the angle grinder by releasing the On/off switch (2), making sure the safety lock-off button (6) is in the centre position.

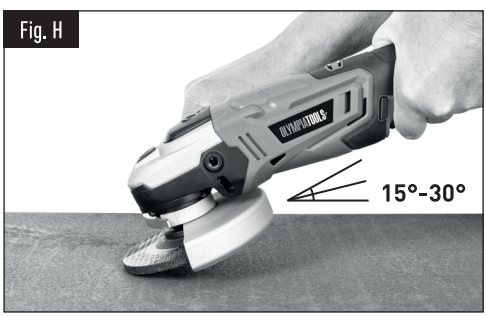
To use the grinder (See fig. H)

⚠ WARNING!

Do not switch the grinder on whilst the disc is in contact with the workpiece. Allow the disc to reach full speed before starting to grind. Remove the angle grinder from the work surface before turning it off.

Hold your angle grinder with one hand on the main handle and other hand firmly around the side handle. Always position the guard so that as much of the exposed disc as possible is pointing away from you. Be prepared for a stream of sparks when the disc touches the metal. For best tool control, material removal and minimum overloading, maintain an angle between the disc and work surface of approximately 15°C-30°C when grinding. Use caution when working into corners as contact with the intersecting surface may cause the grinder to jump or twist. When grinding is complete allow the workpiece to cool. Do not touch the hot surface.

Fig. H



Cutting

⚠ WARNING!

For cutting metal, use a special protection guard (not supplied).

When cutting, do not press, tilt or oscillate the tool. Work with moderate feed, adapted to the material being cut. Do not reduce the speed of running down cutting discs by applying sideward pressure. The direction in which the cutting is performed is important. The tool must always work in an up-grinding motion. Therefore, never move the tool in the other direction! Otherwise, the danger exists of it being pushed uncontrolled out of the cut.

Overload

Overloading will cause damage to the motor of your angle grinder. This can happen if your angle grinder is subjected to heavy use for prolonged periods of time. Do not in any circumstances, attempt to exert too much pressure on your angle grinder to speed up your work. If your angle grinder becomes too hot, run the angle grinder without load for 2-3 minutes until it has cooled to a normal operation temperature.

Checking the battery pack capacity (See fig. I)

Check the battery capacity via the coloured LEDs.
Press the button and check the LEDs:

Light	Status
1 green light on	Battery too low
2 green lights on	Battery half charged
3 green lights on	Battery fully charged

Fig. I

Disposal of an exhausted battery pack

Olympia Tools provides a facility for the collection and recycling of rechargeable LI-ION batteries once they have reached the end of their working life. To dispose of your battery please return to any Olympia Tools stockist who will collect them on our behalf. Alternatively consult your local waste authority for information regarding available recycling and/or disposal options. It will then be recycled or dismantled in order to reduce the impact on the environment. Battery packs can be hazardous for the environment and for human health since they contain hazardous substances.

Discharge your battery pack by operating your angle grinder, then remove the battery pack from the angle grinder housing and cover the battery pack connections with heavy-duty adhesive tape to prevent short circuit and energy discharge. Do not attempt to open or remove any of the components.

LI-ION

Overload protection

When overloaded, the motor comes to a stop. Relieve the load on the tool immediately and release the On/off switch. Restart the tool as normal.

Temperature dependent overload protection

When used as intended the power tool cannot be subject to overload. When the load is too high or the allowable battery temperature is too hot, the electronic control switches off the power tool until the temperature is in the optimum temperature range again.

Protection against deep discharging

The LI-ION battery is protected against deep discharging by the "Discharging Protection System". When the battery is empty, the tool is switched off by means of a protective circuit. The angle grinder will no longer rotate. Remove the battery and recharge.

Useful tips

1. Always start at no load to achieve maximum speed then start working.
2. Do not force the disc to work faster, reducing the disc's moving speed means longer working time.
3. Always work with a 15-30° angle between disc and workpiece. Larger angles will cut ridges into the workpiece and affect the surface finish. Move the angle grinder across and back and forth over the workpiece.
4. When using a cutting disc never change the cutting angle otherwise you will stall the disc and angle grinder motor or break the disc. When cutting, only cut in the opposite direction to the disc rotation. If you cut in the same direction as the disc rotation the disc may push itself out of the cut slot.
5. When cutting very hard material best results can be achieved with a diamond disc.
6. When using a diamond disc it will become very hot. If this happens you will see a full ring of sparks around the rotating disc. Stop cutting and allow to cool without load for 2-3 minutes.
7. Always ensure the workpiece is firmly held or clamped to prevent movement.

TROUBLE SHOOTING

If your grinder will not operate?

Check the power at the mains plug.

If your grinder wheel wobbles or vibrates?

Check that the outer flange is tight, check that the wheel is correctly located on the inner flange.

If there is any evidence that the wheel is damaged?

Do not use as the damaged wheel may disintegrate, remove it and replace with a new wheel. Dispose of old wheels sensibly.

If working on aluminium or a similar soft alloy?

The wheel will soon become clogged and will not grind effectively.

Reasons for different battery pack working times?

Prolonged storage of a battery pack without use will reduce the battery pack working time. This can be corrected after several charge and discharge operations by charging and working with your angle grinder. Heavy working conditions will use up the battery pack energy faster than lighter working conditions. Do not re-charge your battery pack below 0ºC and above 45ºC as this will affect performance.

MAINTENANCE

Your tool requires no additional lubrication or maintenance. There are no user serviceable parts in your power tool.

Never use water or chemical cleaners to clean your power tool. Wipe clean with a dry cloth.

Always store your power tool in a dry place.

Keep the motor ventilation slots clean. Keep all working controls free of dust.

Occasionally you may see sparks through the ventilation slots. This is normal and will not damage your power tool.

TECHNICAL SPECIFICATIONS

Angle grinder

Model	PT160301BH-20V (X20SAG1)
Code	09-940
Battery voltage	20V ⎓
Battery capacity	1x X20S™ 2.0Ah LI-ION 40Wh
Charge time	1 hour
No-load speed	8500/min
Disc diameter	115mm/4½" (not included)
Spindle thread	M14
Weight	1.95kg

Battery pack

Model	JH002-20V (X20SB2)
Code	09-980
Battery voltage	20V ⎓
Battery capacity	2.0Ah LI-ION 40Wh

Battery pack charger

Model	XZ2000-2400KSB (X20SFC)
Code	09-990
Input	220-240V~50-60Hz 65W
Output	DC20V ⎓ 2.4A
Charging time	1 hour
Protection class II	⧈
For indoor use only	⌂

Noise/vibration information

Noise

A weighted sound pressure	L_{pA}: 85.9dB(A)
A weighted sound power	L_{wA}: 96.9dB(A)
	K_{pA} and K_{wA} =3.0dB(A)

⚠ WARNING!

Wear ear protection when sound pressure is over: 80dB(A)

Vibration

Vibration total values (triax vector sum) determined according to EN 62841:

Surface grinding	Vibration emission value $a_{h, AG}$ = 4.701m/s^2
	Uncertainty K = 1.5m/s^2

The declared vibration total value may be used for comparing one tool with another, and may also be used in a preliminary assessment of exposure.

⚠ WARNING!

The vibration emission value during actual use of the power tool can differ from the declared value depending on the ways in which the tool is used for example:

How the tool is used and the materials being cut or drilled.

The tool being in good condition and well maintained.

Use of the correct accessory for the tool and ensuring it is sharp and in good condition.

The tightness of the grip on the handles and whether any anti-vibration accessories are used.

The tool is being used as intended by its design and as detailed in this user guide.

This tool may cause hand-arm vibration syndrome if its use is not adequately managed.

⚠ WARNING!

To be accurate, an estimation of exposure level in the actual conditions of use should also take account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle but not actually doing the job. This may significantly reduce the exposure level over the total working period.

ALWAYS use sharp chisels, drills and blades.

Maintain this tool in accordance with these instructions and keep well lubricated (where appropriate).

If the tool is to be used regularly then invest in anti-vibration accessories.

Avoid using tools in temperatures of 10^{0}C or less.

Plan your work schedule to spread any high vibration tool use across a number of days.

DISPOSAL

Packaging materials

Dispose of in an environmentally friendly way by adding to your recyclable waste bin, or by taking it to a public collection centre.

Electrical products

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

Batteries

Olympia Tools provides a facility for the collection and recycling of rechargeable LI-ION batteries once they have reached the end of their working life. To dispose of your battery please return to any Olympia Tools stockist who will collect on our behalf. Alternatively consult your local waste authority for information regarding available recycling and/ or disposal options. Your battery will then be recycled or dismantled in order to reduce the impact on the environment. Battery packs can be hazardous for the environment and for human health since they contain hazardous substances.

LI-ION

STORAGE

Store the machine, operating instructions and where necessary the accessories in the original packaging. In this way you will always have all the information and parts ready to hand.

Pack the device well or use the original packaging in order to avoid transit damage.

Always keep the machine in dry place.

TRANSPORT

⚠ WARNING!

LI-ION batteries are subject to Dangerous Goods Legislation.

The process for shipping LI-ION batteries can be difficult. There are many regulations you need to adhere to, and specific packaging and labelling instructions you need to follow when sending LI-ION batteries by ground or air via a third party (air freight, courier, etc.)

Ensure you take account of UN3481 regulations and any more detailed national regulations. If in doubt, contact the service provider you have chosen to ship your LI-ION batteries or consult an expert for hazardous material.

⚠ WARNING!

- Make sure your LI-ION battery is contained in its associated device
- Seal the On/off switches and any electrical terminals with tape
- Place your device in a plastic bag before packaging it
- Make sure you attach the correct shipping label for the service you're using to ship your LI-ION batteries
- You are responsible for ensuring all documentation is correct
- Make sure your package is secure and will not break if it is dropped
- Use as much hard-wearing packaging as you can
- You are not allowed to ship faulty LI-ION batteries
- Batteries can be transported by road without further requirements

GUARANTEE

This product is selected for **DOMESTIC USE ONLY** and not for business use. This product is guaranteed against manufacturing defects for a period of 24 months. This does not cover the product where the fault is due to misuse, abuse, use in contravention of the instructions, or where the product has been the subject of unauthorised modifications or alterations, or has been the subject of commercial use. In the event of a problem with the product within the guarantee period please return it to your nearest store. If the item is shown to have an inherent defect present at the time of sale, the store will provide you with a replacement. Your statutory rights remain unaffected.

UK DECLARATION OF CONFORMITY

1. Apparatus product/model

Product: **X20S™ Angle grinder 1x 2Ah**

Model: **PT160301BH-20V (X20SAG1)**

2. This declaration of conformity is issued under the sole responsibility of the manufacturer

3. Object of the declaration

Product: **X20S™ Angle grinder 1x 2Ah**

Model: **PT160301BH-20V (X20SAG1)**

Rated voltage: **20V**

4. This X20S™ Angle grinder 1x 2Ah model number PT160301BH-20V (X20SAG1), fully complies with the Supply of Machinery (Safety) Regulations 2008, Electromagnetic Compatibility Regulations 2016, the Restriction of Use of Certain Hazardous Substances in Electrical & Electronic Equipment Regulations 2012, and the following standards:

EN 60745-1: 2009+A11: 2010

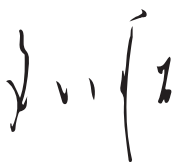
EN 60745-2-3: 2011+A2: 2013+A11: 2014+A12: 2014+A13: 2015

EN 55014-1: 2017+A11: 2020 EN 55014-2: 2015

5. This declaration is made under the sole responsibility of:
SUMEC HARDWARE AND TOOLS CO., LTD.
No. 1 Xinghuo Road, Jiangbei New Arga, Nanjing, Jiansu, 210061 China

Chief Engineer
Wenjun

Date: Aug,12,2021



EU DECLARATION OF CONFORMITY

1. Apparatus product/model

Product: **X20S™ Angle grinder 1x 2Ah**

Model: **PT160301BH-20V (X20SAG1)**

2. This declaration of conformity is issued under the sole responsibility of the manufacturer

3. Object of the declaration

Product: **X20S™ Angle grinder 1x 2Ah**

Model: **PT160301BH-20V (X20SAG1)**

Rated voltage: **20V**

4. This X20S™ Angle grinder 1x 2Ah model number PT160301BH-20V (X20SAG1), fully complies with the Machinery Directive 2006/42/EC, Electromagnetic Compatibility Directive 2014/30/EC, RoHS Directive 2011/65/EU and the following harmonized EU standards:

EN 60745-1: 2009+A11: 2010

EN 60745-2-3: 2011+A2: 2013+A11 :2014+A12: 2014+A13: 2015

EN 55014-1: 2017+A11: 2020

EN 55014-2: 2015

5. This declaration is made under the sole responsibility of:
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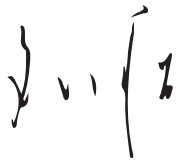
Chief Engineer
Wenjun
Date: Aug,25,2021



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