

ALIRAC **FIXMAN**

ANGLE GRINDER


FM4052400



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ALIRAC **FIXMAN**



 Read and follow all safety instructions



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GENERAL SAFETY RULES

WARNING

Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

GENERAL OPERATIONAL PRECAUTIONS

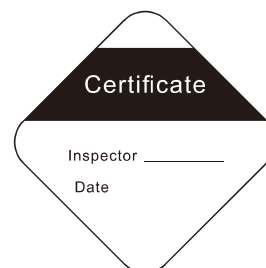
1. **WORK AREA**
 - a. **Keep work area clean and well lit.** Cluttered benches and dark areas invite accidents.
 - b. **Do not operate power tools in explosive atmospheres, such as in presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust of fumes.
 - c. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.
2. **ELECTRICAL SAFETY**
 - a. **Double Insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way, if the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double Insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
 - b. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is 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 to carry the tools or pull from a receptacle. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase 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 tool while 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. **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
 - c. **Avoid accidental starting. Be sure switch is "OFF" before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch "ON" invites accidents.
 - d. **Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
 - e. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
 - f. **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or ear plugs must be used for appropriate conditions.
4. **TOOL USE AND CARE**
 - a. **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to lose of control.
 - b. **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
 - c. **Do not use tool if switch does not run it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
 - d. **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
 - e. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hand of untrained users.
 - f. **Maintain tools with care. Keep tools sharp and clean.** Keep handles dry, clean and free from oil and grease. Any alteration or modification is a misuse and may result in a dangerous condition.
 - g. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
 - h. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.

Part	Description	Qty	Part	Description	Qty
1	Outer Flange	1	28	Anti-dust Ring	1
2	Inner Flange	1	29	Bearing 6200-2Z	1
3	Protect Guard	1	30	6200 Bearing Sleeve	1
4	Spindle	1	31	Wind Guard	1
5	Key4*4*20	1	32	Screw ST4.8X70F	2
6	Dust Cover	1	33	Stator Assy	1
7	Screw M5X16	4	34	Housing	1
8	Spring Washer 5	4	35	Brush Cover	2
9	Front cover	1	36	Brush Cover	2
10	Bearing 6203-2Z	1	37	Carbon Brush Cover	2
11	Front Bearing Cover	1	38	Brush	2
12	Spring Washer 4	7	39	Brush Holder	2
13	Screw M4 X10	7	40	Electric Ring	2
14	Wheel Gear	1	41	Left Handle	1
15	Circlip 17	1	42	Capacitor	1
16	Bearing 609-2Z	1	43	Switch	1
17	Gear Box	1	44	Screw ST4.2X40F	2
18	Screw ST4.8X35F	4	45	Screw 4.2X14F	3
19	Spindle Lock	1	46	Right Handle	1
20	Lock Spring	1	47	Screw 4.2X14F	2
21	Circlip 9	1	48	Cable Clamp	1
22	Anti-Dust Cap	1	49	Cable Protector	1
23	Nut M8	1	50	Cable and Plug	1
24	Pinion Gear	1	51	Side Handle	1
25	Bearing 6301-2Z	1	52	M8 Hex Wrench	1
26	6301 Bearing Cover	1	53	Spanner	1
27	Rotor Assy	1			

SPECIFICATIONS

Model	FM4052400
Disc Diameter	230mm
Voltage	230V
Frequency	50Hz
Rated power	2400W
No-Load Speed	6000rpm

*Be sure to check the nameplate on product as it is subject to change by areas.



5. SERVICE

- a. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
- b. **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instruction may create a risk of electric shock or injury.

ANGLE GRINDER SAFETY RULES

1. **Always use proper guard with grinding wheel.** A guard protects operator from broken wheel attachments, the guard must always be attached to the tool and positioned for maximum safety, so the least amount of wheel is exposed from the side the tool is being operated.
2. **Accessories must be rated for at least the speed recommended on the tool warning label.** Wheels and other accessories running over rated speed can fly apart and cause injury. Accessory ratings must be above listed minimum wheel speed as shown on tool nameplate.
3. **Hold tool by insulated gripping surfaces when performing an operation where the cutting tools may contact hidden wiring or its own cord.** Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
4. **Always use auxiliary handle for maximum control over torque reaction or kick-back.** Operation of the grinder without the side handle could cause loss of control of the grinder, resulting in possible serious personal injury.
5. **Before using a grinder or installing a new wheel, inspect the grinding wheel for chips and cracks. Remove bad wheels immediately. Run the tool at no load for one minute, holding the tool in the direction away from people.** Wheels with flaws will normally break apart during this time.
6. **Carefully handle both the tool and individual grinding wheels to avoid chipping or cracking. Install a new wheel if tool is dropped while grinding. Do not use a wheel that may be damaged.** Fragments from a wheel that bursts during operation will fly away at great velocity possibly striking you or bystanders.
7. **Do not use grinding wheel that is larger than the maximum recommended size for your tool, or worn down damage wheels from larger grinders.** Wheels intended for large angle sander/grinder, these wheels may easily burst and the fragments strike you or by standers.
8. **Do not use depressed hub grinding wheels for cut-off operations.** Depressed hub wheels or type 27 wheels are not intend side loading and may shatter under overload.
9. **Do not use this tool with "Woodcraving" blade.** Such blades create frequent kick-back and loss of control.
10. **Wear proper apparel while using a grinder.** Face shield or at least safety goggles, dust mask, leather gloves and shop apron capable of stopping small wheel or workpiece fragments.
11. **Position the cord clear of the spinning grinding wheel or any other sanding accessory. Do not wrap the cord around your arm or wrist.** If you lose control and have the cord wrapped around your arm or wrist it may entrap you and cause injury.
12. **Avoid bouncing and snagging the wheel, especially when working corners, sharp edges etc.** This can cause loss of control and kick-back.
13. **Regularly clean the tool's air vents by compressed air.** Excessive accumulation of powdered metal inside the motor housing may cause electrical failures.
14. **Do not grind or sand near flammable materials.** Sparks from the wheel could ignite these materials.
15. **Direct the discharge of the spinning wire brush away from you.** Small particles and tiny wire fragments may be discharged at high velocity during the "cleaning" action with these brushes and may become imbedded in your skin.

⚠ WARNING

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

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

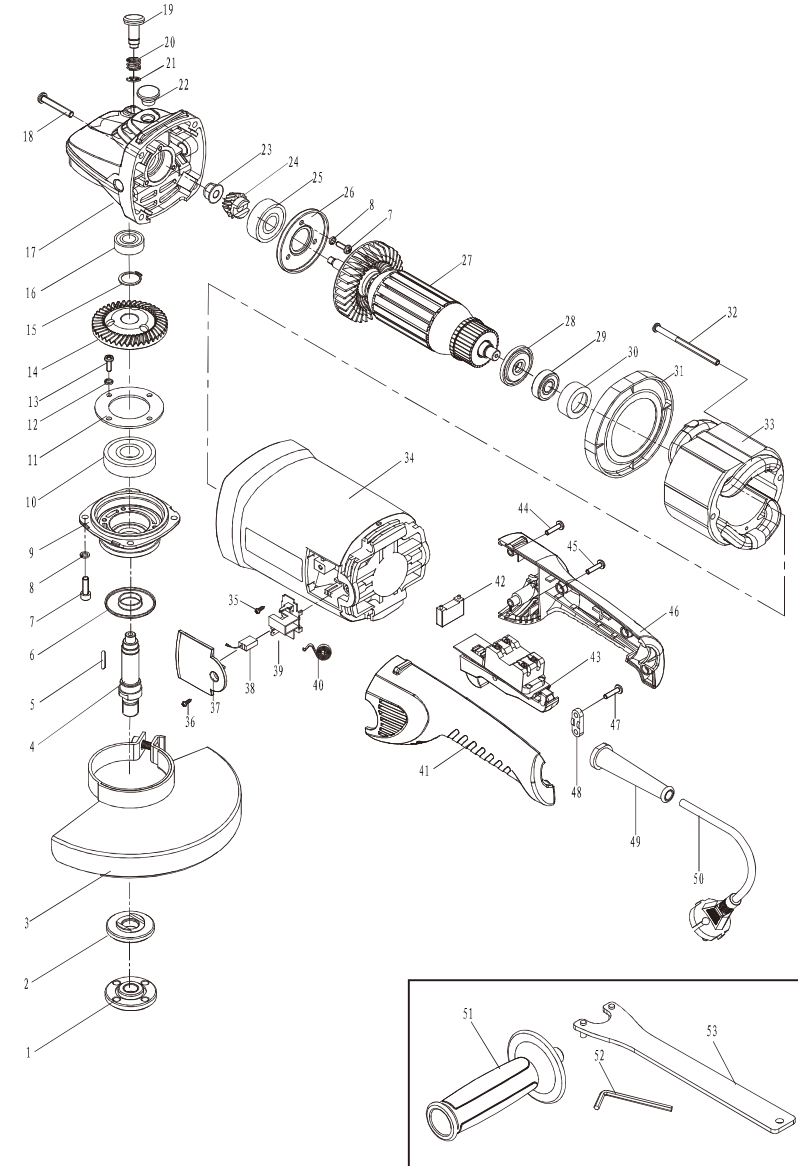
Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

FUNCTIONAL DESCRIPTION AND SPECIFICATIONS

NOTE:

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

Some illustrations in this Instruction Manual may show details or attachments that differ from those on your own power tool.



OPERATING INSTRUCTIONS

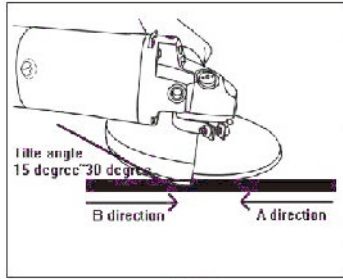


Fig7

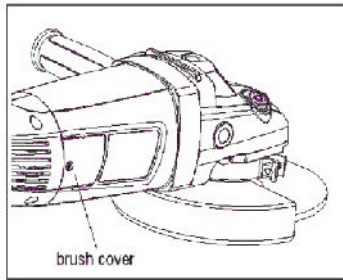


Fig8

◆ **Maintenance & Daily care.**

CAUTION:

Always be sure that the tool is switch off and unplugging before attempting to perform inspection and maintenance.

1. The tool and its air vents have to be keep clean, regularly clean the tool's air vents or whenever the vents start to become obstructed
2. Check the all screws if be loosened or not periodically.
3. Usually check the cord insulation if broken or not.

◆ **Effective and safe for Grinding and sanding operation.**

- Always hold the tool firmly with one hand on housing and the other on the side handle, turn the tool on and then apply the wheel or disc to the workpiece.
- Forbid operating the tool under the condition of removing the wheel guard.

1. The users can get satisfied effects if the users give 1/2 strength compared with the own weight of the tool. Over strength is easy to make the tool engine and abrasive wheel damaged because of overload.
2. Generally speaking, please keep the grinding and cutting part of the wheel and disc in the scope of 15 to 30 degree with the surface of processing object. (Fig 7)
3. In general operation, should start first then work, In reverse should leave workpiece then stop.

◆ **Replacing carbon brushes.**

1. Remove and check the carbon brushes regularly. Replace when the tool occur obvious sparks or wear down to 5-7mm left.
2. Both carbon brushes should be replaced at the same time Use only PROWORX brushes provided. (Fig 8)
3. Please send this tool to the authorized service center to replace or be replaced by the experienced worker always.

CAUTION:

Be sure to re-install the knob after inserting new carbon brush.

After replacing brushes, plug in the tool and break in brushes by running tool with no load for about 10 minutes. Then check the tool while running, when releasing the switch trigger. If the tool is not working well, ask your local PROWORX service center for repair.

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by PROWORX Authorized or Factory service centers, always using PROWORX replacement parts.

SYMBOLS

IMPORTANT: Some of the following symbols may be used on your tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

Symbol	Name	Designation/Explanation
V	Volts	Voltage (potential)
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
min	Minutes	Time
∅	Diameter	Size of drill bits, grinding wheels, etc.
n ₀	No load speed	Rotational speed, at no load
.../min	Revolutions or reciprocation per minute	Revolutions, strokes, surface speed, orbits etc. per minute
~	Alternating current	Type or a characteristic of current
— — —	Direct current	Type or a characteristic of current
~	Alternating or direct current	Type or a characteristic of current
□	Class II construction	Designates Double Insulated Construction tools.
⊕	Earthing terminal	Grounding terminal

FUNCTIONAL DESCRIPTION

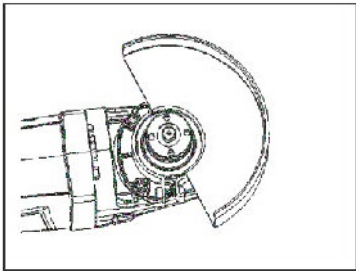


Fig1

■ Operation instructions:

◆ Wheel Guard

Please aim the convex end of the wheel guard to the slot mouth of the front cover, and then rotate the guard body to 180 degree, finally tighten the fastening screw (Fig1&Fig2)

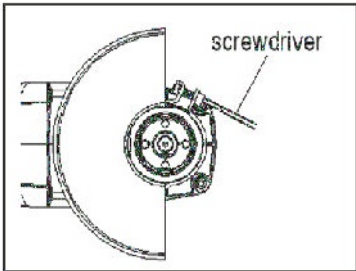


Fig2

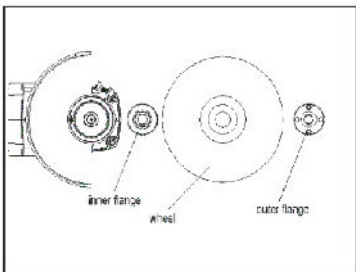


Fig3

◆ Installing or removing grinding wheel

⚠ CAUTION:

• When using an abrasive cut-off wheel, be sure to use only the supplied wheel guard, inner flange, out flange designed for use with cut-off wheels.

1. Mount the inner flange onto the spindle, Fit the wheel/disc on the inner flange and screw the outer flange onto the spindle (Fig 3).
2. To tighten the outer flange, Press the shaft lock firmly so that the spindle cannot revolve, then use the lock nut wrench and securely tighten clockwise. (Fig 4)
3. To remove the wheel, follow the installation procedure in reverse.

※ NOTICE:

The groove of INNER FLANGE must align the flanness of spindle when you install the wheel and tighten enough.

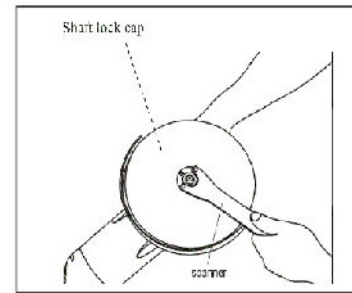


Fig4

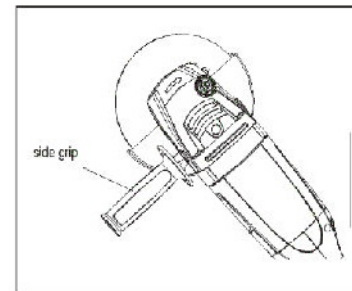


Fig5

◆ Side grip(Fig5)

⚠ Caution:

Always be sure that the side grip is installed securely before operation.

The both sides & top side of tool's head designed three screw holes to assemble the grip side.

Screw the side grip securely on the position of the tool as shown in the figure 5.

Hold the side grip firmly by hand all the way you will control the tool better.

◆ Switch Action(Fig6)

⚠ Caution:

- Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.
- Switch can not be locked in "ON" position for safety of operator during use. And only lock-off button was pushed forward totally, switch can act, and tool begins running. Apply caution when using tool and maintain firm grasp on tool.

