UNIMAC®

71-PIECE
AIR TOOL KIT

Operating Manual

Preface

This Operating Manual has been designed to instruct you on the correct use and operation of your 71-piece Air Tool Kit. Your satisfaction with this product and its safe operation is our ultimate concern. Therefore, please take the time to read the entire manual, especially the Safety Precautions. They will help you avoid potential hazards that may exist when working with this product.

WARNING!

READ AND UNDERSTAND ALL SAFETY PRECAUTIONS IN THIS MANUAL BEFORE OPERATING. FAILURE TO COMPLY WITH INSTRUCTIONS IN THIS MANUAL COULD RESULT IN PERSONAL INJURY, PROPERTY DAMAGE, AND/ OR VOIDING OF YOUR WARRANTY. SMARTER TOOLS WILL NOT BE LIABLE FOR ANY DAMAGE BECAUSE OF FAILURE TO FOLLOW THESE INSTRUCTIONS.

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SECTION 1:
SAFETY INSTRUCTIONS AND WARNINGS

1.1 Symbol Usage

This manual contains important information that you need to know and understand in order to assure YOUR SAFETY and PROPER OPERATION OF EQUIPMENT. The following symbols help you recognize this information. Please read the manual and pay attention to these sections.

Save These Important Safety Instructions!

Read and understand all of these safety instructions. Be sure to retain them for future use.

WARNING!

WARNINGS INDICATE A CERTAINTY OR STRONG POSSIBILITY OF PERSONAL INJURY OR DEATH IF INSTRUCTIONS ARE NOT FOLLOWED.

CAUTION:

CAUTIONS INDICATE A POSSIBILITY OF EQUIPMENT DAMAGE IF INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

Note:

Notes give helpful information

Improper operation of pneumatic tools can cause serious injury or death, or damage to other equipment or property, if the operator does not strictly observe all safety rules and take precautionary actions.

Keep this manual in a safe and dry place for future reference of the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures.

WARNING!

SOME DUST CREATED BY POWER SANDING, SAWING, GRINDING 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 form bricks, cement and other masonry products

Arsenic and chromium from chemically treated lumber

Your risk from exposure 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 use approved personal protective equipment such as dust masks that are specially designed to filter out microscopic particles (California Health & Safety Code 25249.5, et seq.).

1.2 GENERAL SAFETY RULES

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

Work Area

1. Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
2. Do not operate pneumatic tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Pneumatic tools create sparks which may ignite flammables.
3. Keep bystanders, children and pets away while operating a pneumatic tool. Distractions can cause you to lose control. Protect others in the work area from debris such as metal filings and sparks. Provide barriers or shields as needed.

Personal Safety

1. Stay alert. Watch what you are doing, and use common sense when operating a pneumatic tool. Do not use a pneumatic tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating pneumatic tools may result in serious personal injury.

2. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
3. Avoid accidental starting. Be sure the trigger is off before connecting to the air supply. Carrying pneumatic tools with your finger on the trigger, or connecting pneumatic tools to the air supply with the trigger on, invites accidents.
4. Remove adjusting keys or wrenches before turning on the tool. A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
5. Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
6. Use safety equipment. Always wear ANSI-approved safety glasses underneath a full face shield, and hearing protection.

WARNING!

THE OPERATION OF ANY TOOL CAN RESULT IN FOREIGN OBJECTS BEING THROWN INTO YOUR EYES, WHICH CAN RESULT IN SEVERE EYE DAMAGE. BEFORE BEGINNING OPERATION, ALWAYS WEAR SAFETY GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS AND A FULL FACE SHIELD WHEN NEEDED.

We recommend wide vision safety mask for use over eyeglasses or standard safety glasses with side shields. Always wear eye protection which is marked to comply with ANSI Z87.1.

Use and Care

1. Use clamps or other practical ways to secure and support the work piece to a stable platform. Holding the work by hand is unstable and may lead to loss of control. Only work on a work-piece that is properly secured.
2. Do not force the 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.
3. Do not use the power tool if the trigger does not turn it on or off. Any tool that cannot be controlled with the trigger is dangerous and must be replaced.
4. Disconnect the air hose from the tool before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.

5. Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.
6. Maintain tools with care. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
7. Check for misalignment or binding of moving parts, breakages of parts, damaged air hose (not included), and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
8. 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.
9. Guard against electric shock. Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.

WARNING!

RISK OF ELECTRICAL SHOCK.
THIS TOOL IS NOT PROVIDED WITH AN INSULATED GRIPPING SURFACE.

Service

1. Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
2. When servicing a tool, use only identical replacement parts. Follow instructions in the "Inspection, Maintenance and Cleaning" section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.

1.3 SPECIFIC SAFETY RULES

1. To avoid accidental injury, always wear ANSI-approved safety glasses, a full face shield, and ear protection when operating pneumatic tools.
2. Use clean, dry, regulated compressed air at 90 PSI. Do not exceed the recommended 90 PSI. Never use oxygen, carbon dioxide, combustible gases, or any other bottled gas as a power source for this tool.
3. When connecting to the air supply: Prior to each use, if an automatic oiler is not used, add two drops of air tool oil (not included) into the air inlet fitting of the tool body.
4. Always disconnect the tool body from its compressed air supply source, and squeeze the trigger to release all compressed air in the tool before performing any maintenance or service.

5. The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
6. Do not point air tool at people or animals.
7. Hold air tool with both hands during use.

Vibration Hazard

This tool vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. To reduce the risk of vibration-related injury:

1. Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any medical or physical symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.
2. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
3. Wear suitable gloves to reduce the vibration effects on the user.
4. Use tools with the lowest vibration when there is a choice between different processes.
5. Include vibration-free periods each day of work.
6. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.
7. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.

1.4 CAUTIONARY LABELS

Found on the tool and packaging. Do not attempt to remove, destroy, or cover labels. If labels become illegible, please contact Smarter Tools or a Smarter Tools Authorized Service Center to order replacements.

SECTION 2:
INITIAL TOOL SET UP/ASSEMBLY
2.1 Specifications

Maximum Air Pressure	90 PSI
Air Inlet	1/4” – 1/8” NPT Female
Average Air Consumption	4.5CFM
AIR RATCHET	
Maximum RPM	160 RPM
Maximum Torque	60ft/lb
Chuck	3/8”
Settings	Forward/Reverse
Average Air Consumption	4CFM
IMPACT WRENCH	
Maximum RPM	7000 RPM
Maximum Torque	230ft/lb
Chuck	1/2”
Reversible	No
Average Air Consumption	5CFM
AIR DIE GRINDER	
Maximum RPM	25000 RPM
Collet	1/4”
Average Air Consumption	4CFM
AIR HAMMER	
Blows per Minute	4,500
Stroke Length	1 5/8”
Average Air Consumption	5CFM
BLOW GUN	
Maximum PSI	145

Maximum speeds are stated at maximum air pressure. Excess air pressure is hazardous and may cause the tool to exceed stated maximum speeds.

2.2 Set Up/Assembly

CAUTION:

READ THE ENTIRE IMPORTANT SAFETY INFORMATION SECTION AT THE BEGINNING OF THIS MANUAL INCLUDING ALL TEXT UNDER SUBHEADINGS THEREIN BEFORE SET UP/ASSEMBLY OR USE OF THIS PRODUCT.

Note:

For additional information regarding the location of parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

When unpacking, make sure that all items are intact and undamaged. **DO NOT** ATTEMPT TO OPERATE THIS TOOL WITH DAMAGED COMPONENTS.

Note:

This air tool ships with a protective plug covering the air inlet. This plug MUST be removed to operate. DO NOT attempt assembly without removing the protective plug first.

2.3 Tool Set Up

1. Select the appropriate tool for the job. Do not force the 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.
2. Attach all needed accessories before connecting the tool to the air supply. Always disconnect the tool from the air supply when changing accessories or making adjustments.

2.4 Connecting to Air Supply

WARNING!

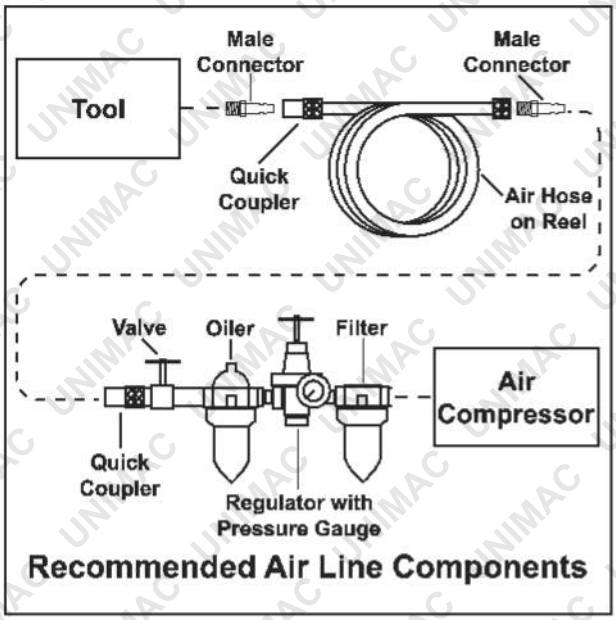
TO PREVENT EXPLOSION: USE ONLY CLEAN, DRY, REGULATED, COMPRESSED AIR TO POWER THIS TOOL. DO NOT USE OXYGEN, CARBON, DIOXIDE, COMBUSTIBLE GASES, OR ANY OTHER BOTTLED GAS AS A POWER SOURCE FOR THIS TOOL.

Note:

If an automatic oiler system is not used, add a few drops of pneumatic/air too oil to the air line connection before operation. Add a few more drops after each hour of use.

CAUTION:

IF YOU ARE WORKING WITH AN AIR HOSE THAT IS NOT "SELF-COILING", ROUTE THE AIR HOSE ALONG A SAFE ROUTE TO REACH THE WORK AREA WITHOUT CREATING A TRIPPING HAZARD OR EXPOSING IT TO POSSIBLE DAMAGE.



Recommended Air Line Components

1. Incorporate an in-line oiler, shut off valve, regulator with pressure gauge, and filter for best service. **An in-line shut-off valve is an important safety device because it controls the air supply even if the air hose is ruptured.**

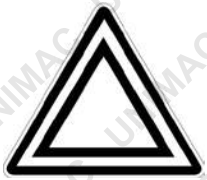
Note:

Attaching a 1/4" self coiling air hose between the air supply and the tool will greatly increase versatility.

2. Attach an air hose to the compressor's air outlet (use of thread sealing tape is recommended). Connect opposite end of the air hose to the air inlet of the tool. *Other components, such as a connector and quick coupler will make operation more efficient, but are not required.*
3. The air hose must be long enough to reach the work area with enough extra length to allow free movement of the operator and the tool.
4. Make sure the tool's trigger is in the off position; refer to the "Operation" section for description of controls.
5. Select the attachment (Grinder, Ratchet, or Drill) needed for the job and fasten to tool body (see Operation section for instructions).
6. Close the in-line safety valve between the compressor and the tool.
7. Turn on the air compressor according to the manufacturer's directions and allow it to build up pressure until it cycles off.
8. Adjust the air compressor's output regulator so that the air output is enough to properly power the tool, but the output shall not exceed the tool's maximum air pressure (90 PSI) at any time. Adjust the pressure gradually, while checking the air output gauge to set the appropriate pressure range.
9. Inspect the air connections for leaks. Repair any leaks found.
10. When the tool is not in use, detach it from the air supply and discharge any residual air pressure with the trigger before setting the tool down.

Note:

Residual air pressure should not be present after the tool is disconnected from the air supply. However it is a good safety measure to attempt to discharge the tool in a safe fashion to ensure that the tool is disconnected and unpowered.



Note:

Air flow, and therefore tool performance, can be hindered by undersized air supply components.

SECTION 3:
OPERATION
3.1 General

1. If an automatic oiler is not used, add a few drops of pneumatic/air tool oil to the airline connection before use. Add a few more drops after each hour of continual use.
2. The air tools are equipped with a safety catch trigger that locks the trigger into the off position when the trigger is not depressed.
3. To operate trigger: push forward on the safety catch with your thumb while pushing downward on the trigger.
4. The rotation speed of the tool is controlled by the amount of pressure applied to the trigger.
5. DO NOT continue to operate the tool if the safety catch does not lock the trigger in the off position when released.
6. Always ensure that the trigger is in the locked (OFF) position when changing tools or accessories.
7. Change attachments according to instructions in the “Tool Set Up” section of this manual.
8. DO NOT lay the tool down until it has come to a complete stop. Moving parts can grab the surface and pull the tool out of control.

3.2 Air Ratchet

1. The Air Ratchet is designed to work with all 3/8” drive sockets.
2. Before installing a socket onto the Ratchet Anvil, make sure that the tool’s trigger is in the locked (OFF) position.
3. Slide socket onto anvil until it locks into place.
4. Once socket is installed, set the Forward/Reverse knob to the desired direction.
5. Place the socket on the bolt or nut that needs to tightened/loosened.
6. Hold the tool firmly with both hands, as torque will cause the tool to twist when the trigger is depressed.
7. Gently squeeze the trigger to tighten or loosen bolt/nut. Apply additional pressure on trigger as needed.
8. If the bolt/nut requires a higher level of torque than the tool can provide at 90 PSI then an alternate tool should be used to achieve desired torque. DO NOT attempt to raise air pressure to get more torque out of the tool. Operating the tool at a higher than maximum rated pressure can result in damage to the tool and/or accessory and possible injury to the operator.

CAUTION:

TO PREVENT TOOL AND ACCESSORY FAILURE, RESULTING IN INJURY: DO NOT EXCEED THE TOOL'S 90 PSI AIR PRESSURE RATING.

3.3 Impact Wrench

1. The Impact Wrench is designed to work with 1/2" drive sockets.
2. Before installing a socket onto the Wrench Anvil, make sure that the tool's trigger is in the locked (OFF) position.
3. Slide socket onto anvil until it locks into place.
4. Place the socket on the bolt or nut that needs to tightened/loosened.
5. Hold the tool firmly with both hands, as torque will cause the tool to twist when the trigger is depressed.
6. Gently squeeze the trigger to tighten or loosen bolt/nut. Apply additional pressure on trigger as needed.
7. If the bolt/nut requires a higher level of torque than the tool can provide at 90 PSI then an alternate tool should be used to achieve desired torque. DO NOT attempt to raise air pressure to get more torque out of the tool. Operating the tool at a higher than maximum rated pressure can result in damage to the tool and/or accessory and possible injury to the operator.

3.4 Air Die-Grinder

1. The Grinder attachment is designed to work with 1/4" grinder accessories.
2. Before installing an accessory into the collet, make sure that the tool's trigger is in the locked (OFF) position.
3. Select the accessory appropriate to your needs. Use one wrench to hold the collet holder and the other wrench to open the collet nut.
4. Insert the shaft of the accessory into the open collet and use the wrenches to tighten the collet nut.
5. Gently squeeze the trigger to start grinding before you touch the work surface.
6. Allow the grinder to do the work. Apply additional pressure on trigger as needed. DO NOT use excessive force against the surface you are grinding. If you place too much pressure on the work-piece and the grinder stalls, immediately release the trigger and pull the grinder away from the work surface.

7. If the tool requires more force to accomplish the task, verify that the tool is receiving sufficient, unobstructed airflow (CFM) and the maximum air pressure (90 PSI) is being provided.
8. DO NOT attempt to raise air pressure to get more out of the tool. Operating the tool at a higher than maximum rated pressure can result in damage to the tool and/or accessory and possible injury to the operator.
9. If the tool still does not have sufficient force at maximum pressure and airflow, then a larger tool may be required.
10. DO NOT lay the tool down until it has come to a complete stop. Moving parts can grab the surface and pull the tool out of control.

3.5 Air Hammer

1. Select the appropriate chisel bit. With your thumb, put counterclockwise pressure on the spring and insert the shank of the chisel bit into the cylinder. Release the spring**.** Holding the Air Hammer firmly, pull the chisel bit hard to make sure it locked into place.

Note:

Before connecting the air supply, make sure you are wearing safety goggles and a full face mask, ear protection, and steel toe shoes.

WARNING!!

ANY SPECTATORS IN THE IMMEDIATE AREA WILL NEED EYE AND EAR PROTECTION.

BEWARE OF FLYING CHIPS OF WOOD, CONCRETE, METAL, OR ANY OTHER MATERIAL BEING CHISELED.

2. Connect the air hose to the air inlet and turn on the compressor (not included).
3. Grip the Air Hammer with both hands firmly and put the chisel tip up against the workpiece you wish to chip.
4. Gently squeeze the trigger and move slowly along the workpiece. DO NOT push down on the Hammer; let it do the work. If it does not do the intended job to satisfaction, examine your bit to see if it is worn or dull.

When you are finished, turn off the air supply and then hold the Air Hammer in a safe direction and Squeeze the trigger to bleed off the remaining air. Then, disconnect the air hose.

SECTION 4:

MAINTENANCE AND TROUBLESHOOTING

4.1 User Maintenance

These procedures are in addition to the regular checks and maintenance explained as part of the regular operation of the air-operated tool.

CAUTION:

PROCEDURES NOT SPECIFICALLY EXPLAINED IN THIS MANUAL MUST BE PERFORMED ONLY BY A QUALIFIED TECHNICIAN.

WARNING!

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: TURN OFF THE TOOL, DETACH THE AIR SUPPLY, SAFELY DISCHARGE ANY RESIDUAL AIR PRESSURE IN THE TOOL, AND MAKE SURE THE TRIGGER IS IN THE OFF POSITION BEFORE PERFORMING AND INSPECTION, MAINTENANCE, OR CLEANING PROCEDURES.

WARNING!

TO PREVENT EXPLOSION: LUBRICATE THE TOOL ONLY WITH SPECIFIED LUBRICANT. LUBRICATE THE AIR INLET USING ONLY PNEUMATIC/AIR TOOL OIL. OTHER LUBRICANTS MAY DAMAGE THE MECHANISM AND MAY BE HIGHLY FLAMMABLE, CAUSING AN EXPLOSION.

1. **Daily – Air Supply Maintenance:**
   Every day, perform maintenance on the air supply according to the component manufacturers' instructions. The lubricator's oil level needs to be maintained and the moisture filter must be regularly drained. Performing routine maintenance on the air supply will allow the tool to operate more safely and will also reduce wear on the tool.

2. **Quarterly – Tool Disassembly, Cleaning, and Inspection**
   Every 3 months, have the internal mechanism cleaned, inspected, and lubricated by a qualified technician.

WARNING!

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE: DO NOT USE DAMAGED EQUIPMENT. IF ABNORMAL NOISE,

VIBRATION, OR AIR LEAK OCCURS, HAVE THE PROBLEM CORRECTED BEFORE FURTHER USE.

4.2 Troubleshooting

Problem	Possible Cause	Solution
Decreased Output	1. Not enough air pressure and/or air flow. 2. Obstructed trigger. 3. Incorrect lubrication or not enough lubrication. 4. Blocked air inlet screen. 5. Air leaking from loose housing. 6. Mechanism contaminated.	1. Check for loose connections and make sure that air supply is providing enough air flow (CFM) at the required pressure (90 PSI) to the tool's air inlet. **Do not exceed maximum air pressure.** 2. Clean around trigger to ensure free movement. 3. Lubricate using air tool oil according to instructions. 4. Clean air inlet screen. 5. Make sure housing is properly assembled and tight. 6. Have a qualified technician clean and lubricate mechanism. Install an in-line filter in air supply.
Housing heats during operation.	1. Incorrect lubrication or not enough lubrication. 2. Worn parts. 3. Extended continuous use. 4. Applying excessive force.	1. Lubricate using air tool oil according to instructions. 2. Have a qualified technician inspect internal mechanism and replace parts as needed. 3. Allow enough idle time to cool. 4. Use lighter amount of force.
Severe air leakage (slight air leakage is normal, especially on older tools)	1. Cross-threaded or loose housing components. 2. Damaged valve or housing 3. Dirty, worn, or damaged valve.	1. Check for incorrect alignment and uneven gaps. If needed, disassemble and re-tighten. 2. Replace damaged components. 3. Clean or replace valve assembly.

Some experts believe the incorrect or prolonged use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death consult the points below and additionally, the information available at www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.
- Check product for loose / broken / damaged / missing parts, wear or leaks (if applicable) before each use. Never use a product with loose / broken / damaged / missing parts, wear or leaks (if applicable).
- Products must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.
- Ensure all possible users of the product have completed an industry recognised training course before being given access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example) there is always a small chance of a technical issue that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee or could financially affect the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.
- If this item has been purchased in error considering the points above simply contact the retailer directly for details of their returns policies if required.

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