

HIKOKI

WR14A · WR27A



Handling instructions

SAFETY GUIDELINES

Air tool is designed primarily for professional users. User or the user's employer shall assess the specific risks that can be present as a result of each use. This manual contains information that is important for you to know and understand. This information relates to protect YOUR SAFETY and PREVENT EQUIPMENT PROBLEMS. To help you recognize this information, we use the symbols shown on the following pages. Please read the manual and pay attention to these sections.

READ AND FOLLOW ALL INSTRUCTIONS

This tool was designed for certain applications. We strongly recommend that this tool **SHALL NOT** be modified and/or used for any application other than it is designed for. If you have any question relative to its application, **DO NOT** use the tool until you have written to the distributor and the distributor has advised you.



IMPORTANT SAFETY INSTRUCTIONS



WARNING

IMPROPER OPERATION OR MAINTENANCE OF THIS PRODUCT COULD RESULT IN SERIOUS INJURY AND PROPERTY DAMAGE. READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT. WHEN USING AIR TOOLS, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF PERSONAL INJURY.

APPLICATIONS OF AIR TOOLS

Refer to the Section of TECHNICAL DATA for selection of appropriate inserted tool for the specific air tool. Any other use than the intended use of the specific air tool is forbidden.

Impact/Ratchet Wrenches

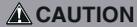
It is intended for lightening/loosening or installing/uninstalling of threaded fasteners, with appropriate power socket wrenches or driver bits.

OPERATION INSTRUCTION

General

Before each use:

- Always operate, inspect and maintain tool in accordance with all regulations (local, state, federal and country), that may apply to hand held pneumatic tools.
- Drain water from air compressor tank and condensation from air lines. See air compressor's operation manual.



Disconnect the tool from the air supply before lubricating, installing, removing or adjusting the tool.

- Lubricate tool, see "Maintenance" section in this manual.
- Select the required drilling bit depending on the material to be work on .
- Connect tool to air hose of recommended size.

NOTE: The use of a quick connect set makes connecting easier.



The use of air filters and air line lubricators is recommended.

To use:

- Turn air compressor on and allow air tank to fill.
- Set the air compressor's regulator to 90 PSI (6.2 bars). This tool operates at a maximum **90 PSI (6.2 bar)** pressure.
- For rotating tools, make sure the direction of rotation before operating tools.
- Make sure the inserted tool is firmly secured by the chuck (drill/tappers), by the retainer (hammers/needle scalers), by the bit holder (screwdrivers), by the collet (die grinders), by the flange set (grinders), blade holder (saws) or firmly attached to the anvil (impact/ratchet wrenches) or the pad (sanders/polishers).
- Setting for the rotational direction, if any:
Pull the level/switch as it is marked on the tool.

◆ 「F」 (Forward) - Clockwise direction seen from the operator's position.

◆ 「R」 (Reverse) - Counter-clockwise direction seen from the operator's position.

Note: For some tools, it may marked with the combination of 「L」 and 「R」. In this case, 「R」 (right) indicates the forward direction and 「L」 (Left) indicates the reverse direction.

- Setting for the rotating/reciprocating speed settings, if any:
 - ◆ by digits: greater number indicates a high setting and vice versa.
 - ◆ by symbols: greater size of the symbol indicates a high setting and vice versa.
- Note: Always start operating with a lower setting.

- Allow the tool to stop completely before changing the direction of rotation.
- To Start or Stop

The tool equips with a hold -to-run trigger/level. Pull the trigger (or press down the lever) to start the tool. The tool will stop running when t he trigger/lever is released.

Note: For certain kinds of air tools, it might take some seconds for the tool to stop completely because of the inertia.

**IMPORTANT**

The energy transmitted from the tool can vary depending on the size of the air compressor and the volume of air the air compressor delivers.

- Do not use damaged, frayed or deteriorated air hoses and fittings.
- Always disconnect air supply before lubricating, installing, removing or adjusting the tool.
- When job is complete, turn the air compressor off and store as described in the air compressor operator manual.
- Always use clean, dry air at 90 PSI (6.2 bars) maximum air pressure. Dust, corrosive fumes and/or excessive moisture can ruin the internal components of a pneumatic tool.
- Do not remove any labels. Replace a damaged label.
- Keep hands, loose clothing and long hair away from the moving parts of tool.

GENERAL SAFETY TIPS FOR AIR TOOLS

**WARNING**

Read the general safety tips and the safety tips related to specific tools carefully for your own safety.

General safety rules

- For multiple hazards, read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on, or working near the power tool. Failure to do so can result in serious bodily injury.
- Only qualified and trained operators should install, adjust or use the power tool.
- Do not modify this power tool. Modifications can reduce the effectiveness of safety measures and increase the risks to the operator.
- Do not discard the safety instructions; give them to the operator.
- Do not use the power tool if it has been damaged.
- Tools shall be inspected periodically to verify that the ratings and markings are legibly marked on the tool. The employer/user shall contact the manufacturer to obtain replacement marking labels when necessary.
- In order to counteract the reaction torque and /or reduce the risk from the vibration, it is recommended to fix the tool on a stable supporting device when working with the tool.

Projectile hazards

- Disconnect the power tool from the energy source when changing inserted tool or accessories.
- Be aware that the failure of the workpiece, or accessories, or even of the inserted tool itself can generate high-velocity projectiles.
- Always wear impact-resistant eye protection during the operation of the power tool. The grade of protection required should be assessed for each use.
- The risk to others should also be assessed.
- Ensure that the workpiece is securely fixed.

EH Entanglement hazards

- Choking, scalping and/or lacerations if loose clothing, personal jewellery, neckware, hair or gloves are not kept away from the tool and accessories.
- Gloves can become entangled with the rotating drive, causing severed or broken fingers.
- Do not wear loose-fitting gloves or gloves with cut or frayed fingers.
- Keep hands away from rotating drives.

OH Operating hazards

- Use of the tool can expose the operator's hands to hazards including impact, cuts, abrasions and/or heat. Wear suitable gloves to protect hands.
- Operators and maintenance personnel shall be physically able to handle the bulk, weight and power of the tool.
- Hold the tool correctly; be ready to counteract normal or sudden movements and have both hands available.
- Maintain a balanced body position and secure footing.
- Release the start-and-stop device in the case of an interruption of the energy supply.
- Use only lubricants recommended by the manufacturer.
- Personal protective safety glasses shall be used; suitable gloves and protective clothing are recommended.
- If the power tool is fixed to a suspension device, make sure that the fixation is secure.

RM Repetitive motions hazards

- When using a power tool to perform work-related activities, the operator can experience discomfort in the hands, arms, shoulders, neck, or other parts of the body.
- While using a power tool, the operator should adopt a comfortable posture whilst maintaining secure footing and avoiding awkward or off-balanced postures. The operator should change posture during extended tasks, which can help avoid discomfort and fatigue.
- If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensations or stiffness, these warning signs should not be ignored. The operator should tell the employer and consult a qualified health professional.

AH Accessory hazards

- Disconnect the power tool from the energy supply before fitting or changing the inserted tool or accessory.
- Use only sizes and types of accessories and consumables that are recommended by the power tool manufacturer; do not use other types or sizes of accessories and consumables.
- Avoid direct contact with the inserted tool during and after use, as it can be hot or sharp.

Workplace hazards

- Slips, trips and falls are major causes of workplace injury. Be aware of slippery surfaces caused by the use of the tool and also of trip hazards caused by the air line or hydraulic hose.
- Proceed with care in unfamiliar surroundings. Hidden hazards, such as electricity or other utility lines, can exist.
- The power tool is not intended for use in potentially explosive atmospheres and is not insulated against coming into contact with electric power.
- Make sure there are no electrical cables, gas pipes, etc., that can cause a hazard if damaged by use of the tool.

Dust and fume hazards

- Dust and fumes generated when using power tools can cause ill health (for example, cancer, birth defects, asthma and/or dermatitis); risk assessment and implementation of appropriate controls for these hazards are essential.
- Risk assessment should include dust created by the use of the tool and the potential for disturbing existing dust.
- Operate and maintain the tool as recommended in these instructions, to minimize dust and fume emissions.
- Direct the exhaust so as to minimize disturbance of dust in a dust-filled environment.
- Where dust or fumes are created, the priority shall be to control them at the point of emission.
- All integral features or accessories for the collection, extraction or suppression of airborne dust or fumes should be correctly used and maintained in accordance with the manufacturer's instructions.
- Select, maintain and replace the consumable/inserted tool as recommended in the instruction handbook to prevent an unnecessary increase in dust or fumes.
- Use respiratory protection in accordance with employer's instructions and as required by occupational health and safety regulations.

Noise hazards

- Exposure to high noise levels can cause permanent, disabling, hearing loss and other problems, such as tinnitus (ringing, buzzing, whistling or humming in the ears). Therefore, risk assessment and implementation of appropriate controls for these hazards are essential.
- Appropriate controls to reduce the risk may include actions such as damping materials to prevent workpieces from "ringing".
- Use hearing protection in accordance with employer's instructions and as required by occupational health and safety regulations.
- Operate and maintain the power tool as recommended in the instruction handbook, to prevent an unnecessary increase in noise levels.
- Select, maintain and replace the consumable/inserted tool as recommended in the

instruction handbook to prevent an unnecessary increase in the noise level.

- If the power tool has a silencer, always ensure it is in place and in good working order when the power tool is operating.

vi Vibration hazards

- Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms.
- Wear warm clothing when working in cold conditions and keep your hands warm and dry.
- If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the power tool, tell your employer and consult a physician.
- Operate and maintain the power tool as recommended in the instruction handbook, to prevent an unnecessary increase in vibration levels.
- Hold the tool with a light but safe grip, taking account of the required hand reaction forces, because the risk from vibration is generally greater when the grip force is higher.

vii Additional safety instructions for pneumatic power tool

- Air under pressure can cause severe injury
- Always shut off air supply, drain hose of air pressure and disconnect tool from air supply when not in use, before changing accessories or when making repairs
- Never direct air at yourself or anyone else.
- Whipping hoses can cause severe injury. Always check for damaged or loose hoses and fittings.
- Cold air shall be directed away from the hands.
- Do not use quick disconnect couplings at tool inlet for impact and impulse wrenches. Use hardened steel (or material with comparable shock resistance) threaded hose fittings.
- Whenever universal twist couplings (claw couplings) are used, lock pins shall be installed and whipcheck safety cables shall be used to safeguard against possible hose-to-tool and hose-and-hose connection failure.
- Do not exceed the maximum air pressure stated on the tool.
- Never carry an air tool by the hose.

SAFETY TIPS FOR SPECIFIC AIR TOOLS

Precautions related to specific	IMPACT/RATCHET WRENCHES
	
[PH]	General safety tips apply.
[EH]	Rotating drive sockets and drive extensions can easily entangle rubber-coated or metal-reinforced gloves. Never hold the drive, socket or drive extension.
[DH]	In cases where the means to absorb the reaction torque are requested, it is recommended to use a suspension arm whenever possible. If that is not possible, side handles are recommended for straight case tools and pistol-grip tools. In any case, it is recommended to use a means to absorb the reaction torque above 4 Nm for straight tools, above 10 Nm for pistol-grip tools and 60 Nm for angle nutrunners. Fingers can be crushed in open-ended crow-foot nutrunners. Do not use in confined spaces and beware of crushing hands between tool and workpiece, especially when unscrewing.
[RM]	General safety tips apply.
[AH]	Do not touch sockets or accessories during impacting, as this increases the risk of cuts, burns or vibration injuries. Use only impact-wrench-rated sockets in good condition, as poor condition or hand sockets and accessories used with impact wrenches can shatter and become a projectile.
[WH]	General safety tips apply.
[DF]	General safety tips apply.
[NH]	General safety tips apply.
[VH]	Keep the hands away from the nutrunner sockets. Do not use worn or ill-fitting sockets or extensions, as this is likely to cause a substantial increase in vibration. Sleeve fittings should be used where practicable. Support the weight of the tool in a stand, tensioner or balancer, if possible.
[PT]	Do not use quick-disconnect couplings at tool inlet. Use hardened steel (or material with comparable shock resistance) threaded hose fittings.

SPECIFICATIONS

Product name	Impact Wrench	
Model	WR14A	WR27A
Square drive	1/2"(12.7mm)	3/4"(19mm)
No-load speed	7,200/min	6,800/min
Tightening torque(Maximum)	785 Nm	1,763 Nm
Capacities(size of bolt)(Ordinary bolt)	16mm	32mm
Air Consumption (90psi)	4.6cfm	6.9cfm
Maximum permissible operating pressure	90psi(6.2bar)	90psi(6.2bar)
Weight	1.9kg	3.5kg
Dimension (Length x Height x Width)	184mm x 205mm x 68mm	216mm x 233mm x 84mm
Noise characteristic values in accordance with EN ISO 15744		
A-weighted sound pressure level at workstation(Lpa)	92.8dB	102.5dB
A-weighted sound power level(Lwa)	103.8dB	113.5dB
Vibration value according to EN ISO 28927-2	4.80m/s ²	19.7m/s ²
Recommended Air hose diameter	at least 10 mm	at least 13 mm

WR14A · WR27A

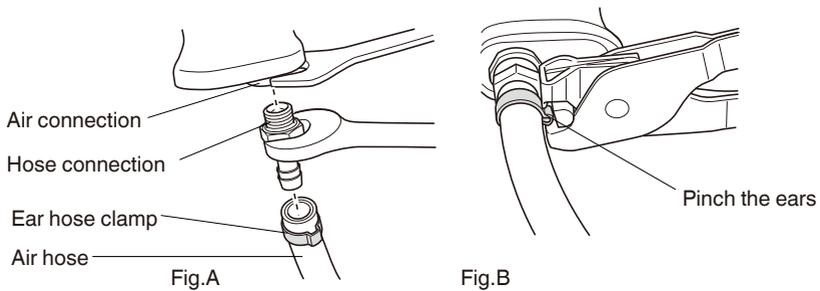
Square attachment for sockets



Before using the tool for the first time

Prepare the compressed air connection.

- ⚠ WARNING** Do not fit quick-lock couplings directly to the compressed air connection. Never screw the enclosed connection pieces for quick-lock couplings directly onto the compressed air connection. - simply screw the hose connection onto the device and then connect the compressed air hose to this. The compressed air hose between the compressed air connection and a quick-lock coupling must be at least 20 cm in length. If fitted too close to the device, a quick-lock coupling may fail: whiplashing hoses can cause serious injury as a result.
- Screw the enclosed hose connection on the compressed air connection : using an openend spanner, secure the compressed air connection against twisting and then screw on the hose connection with another open-end spanner. See Fig. A.
 - Fit the enclosed ear hose clamp onto the compressed air hose that you want to connect.
 - Push the compressed air hose onto the hose connection as far as it will go.
 - Slide the ear hose clamp onto the hose connection. Using a suitable pliers, pinch the ear (see Fig. B).



EXPLANATION OF SYMBOLS



Read instruction before use.



Wear eye protectors.



Wear hearing protectors.



Wear half masks.



Lubricate daily



Proper position of a fixed torque reaction device.



Risk of crushing (between the reaction bar and workpiece)



Risk of crushing (open-ended spanner)



Direction of rotation

MAINTENANCE

General Notes

- Hold the tool and have it running without a load to check the vibration level before using tool. It is a sign for maintenance or repair if excessive vibration level is detected.
- Check the free running speed of the tool by hearing the sound generated from the tool before use. It is recommended to check the free running speed of the tool by a tachometer or stroboscope regularly and after each service.
- Keep tool clean after each use to avoid the risk from exposure to hazardous substances deposited on the tool due to work processes.
- Follow national legislations for the waste disposal.
- Always use the accessories recommended by your distributor.
- Always disconnect the air supply before performing any maintenance on the tool.

Lubrication

Air tools require regular lubrication throughout the life of the tool. The air motor and bearing use compressed air to power the tool. Because moisture in compressed air will rust the air motor, you must lubricate the motor daily. An inline oiler is recommended.

To lubricate the air motor manually:

- Disconnect the tool from the air supply holding it so the air inlet faces up.
- Depress the trigger and place one to two drops of air tool oil in the air inlet.
- Connect the tool to an air source, cover the exhaust end with a towel and run for a few seconds.
- Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel.



Koki Holdings Co., Ltd.

Shinagawa Intercity Tower A, 15-1, Konan 2-chome,
Minato-ku, Tokyo, Japan