



E-M500

Manual

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[www.rami-yokota.com](http://www.rami-yokota.com)





# Air System



## Recommended

### Technical specifications

Brand	Yokota
Square Drive	3/8"
Bolt capacity (mm)	5 - 6
RPM	300 - 4800
Torque (Nm)	3 - 10
Weight (kg)	2,1
mm A	236
mm B	32,5
Safety standard	EN ISO 11148-6
Formal Capacity	3 - 10
Formal Serie From	0R0025
Product Group	Impulse Wrenches
Sales Group	003
UNSPSC number	0
Eclass number	0
EAN	8717981327164

### Before taking into use

Read and understand the contents of this manual before installing, operating, repairing, maintaining, changing accessories of this tool.

Only qualified and trained operators should install, adjust or use the tool.

Please fill some droplets of resin and acid free oil into the air inlet and let the tool run free for a couple of seconds. (E.g. Red Rooster air tool oil: Order no. Atlub)

Before connecting the hose to the tool please check, whether the hose and the quick coupler are clean. Do this by letting air run freely through hose and quick coupler, It is absolutely necessary, that quick coupler and hose have a sufficient diameter. Please note, that the hose is never too big, but mostly too small!

Air pressure at the inlet of the tool during running has to be at the maximum of 6.3 bar. When this pressure is exceeded, unnecessary wear and/or damage will occur. At the pressure of below 5.5 bar power loss will occur and if the pressure is excessively low, also additional wear/damage will occur.

The quality of the compressed air must be good, which means clean, dry and this is best assured by means of an air filter. We advise the use of a complete FRL (filter, regulator, lubricator) unit. The oiler has to be adjusted to approx. 3 to 6 droplets per minute. The air hose between oiler and tool should never exceed a length of 6 to 8 meters.

In those cases, where it is possible, use of a centralized oiler is recommended by us. This system will allow use of less oil and assure a perfect lubrication. When using a centralized oiler, oil consumption can be reduced by up to 80%.

If you intend not to use the tool for a longer period of time, it has to be oiled. Please fill some droplets of resin and acid free oil into the air inlet and let the tool run free for a couple of seconds.

Do not ignore safety precautions!

### Safety

Do not modify this tool in any way, this can cause danger for the operator.

Make sure that this manual is accessible at all times for any relevant person, in case of loss of this manual ask your dealer for a new copy or refer to our website.

Risk of explosion or fire: Make sure that generated sparks and/or increased temperature of the work piece can not cause any explosion or ignite a fire.

Make sure that during operation of the tool no projectiles can be generated, this can be dangerous and may cause injuries.

Make sure that the work piece is securely fixed.

Make sure that the inserted tool or accessory is mounted correctly, if not it may cause high speed projectiles.

Make sure that no dangerous circumstances can occur for other persons in the work area.

Always wear safety glasses during operation of the tool. The grade of protection must be in relation to the risk of the operation.

Rotating mounted accessories can be easily entangled by rubber coated or metal reinforced gloves. Wear suitable gloves.

Keep fingers out of reach of the inserted tool or accessory.

Never hold the drive shaft, socket, bit, inserted/mounted tool/accessory with your hands while rotating.

For impact and impulse wrenches: Only use impact sockets, see our Action catalogue.

The use of safety-/working gloves is recommended.

Use ear protection as instructed by your employer or as required by occupational health and safety requirements.

Reasonable countermeasures have to be taken to keep the noise level as low as possible.

Disconnect the air supply before changing inserted tools, accessories, repairs or when the tool is not being used.

Always check that the mounted tool or accessory is not damaged. Breakage and flying fragments can cause injuries.

Keep rotating parts out of reach of any body part.

In case of long hair, wear a hairnet otherwise it can be trapped causing injuries.

Never wear loose clothing, wear suitable clothing otherwise it can be trapped causing injuries.

Only use accessories for this tool that are designated for this tool by its manufacturer.

The advised minimum age for operating this tool is 18 years.

Keep away from whipping hoses, this can cause injuries. A broken air hose or a hose that comes loose of the hose joint can start whipping. Shut down the air supply immediately. In case the air hose is damaged, stop working, shut down the air supply and replace the hose.

Keep the work place clean and organized, you may stumble and fall over a hose on the floor. Slippery floors and objects on the floor are major causes of injuries.

This tool is not intended for use in potential explosive hazardous areas and is not insulated from coming into contact with electric power.

Wear the appropriate clothing to feel comfortable at the workplace.

Cold exhaust air should be diverted from hands and body.

Air under pressure can cause injuries, be aware of this.

Never direct the exhaust air to yourself or anyone else.

Do not use quick change couplings direct on the air inlet of the tool as these may release during operation. Assemble at least 50 cm air hose with a hose joint of shock resistant material.

In case universal twist couplings ( claw couplings) are used, the lock pins must be mounted.

Do not exceed the maximum air pressure as indicated on the tool.

Never carry the tool by the air hose.

On overhead work, use safety helmet.

Due to the process, the work piece, inserted/mounted tool/accessory may get hot causing burning injuries: Be aware of this.

Only use air hoses that are designed for it and are resistant against the used air pressure.

Always use "safety quick change couplers".

Never let the tool run free in the air: the accessory may come loose and become a projectile causing danger or injury

Only use accessories that are in good condition, worn accessories can be dangerous and cause injuries.

Only trained and qualified operators should use the tool.

Never use a damaged tool.

Tools shall be inspected periodically to verify that the ratings and markings required by the applicable part of the ISO 11148 series are legibly marked on the tool. If not the user/employer shall obtain replacement labels from the dealer or manufacturer.

Use only tight fitting gloves, loose gloves can be trapped or entangled causing injuries.

Use the specified gloves for the application that protects against: heat, cold, entanglement, cutting, impacting

Do not wear any shawls jewelry etc that can be trapped or entangled causing injuries.

In case of power loss, release the trigger immediate.

Make the possible countermeasures to minimize noise emission: if possible, use silence materials on the workpiece or walls around the work station.

A risk assessment related to the noise emission at the work station on the work piece has to be made to determine the correct ear protection according to health and safety regulation.

A risk assessment related to the vibration exposure to determine the maximum working hours per day for the operator. Vibration can cause damage to blood vessels and nerves (white finger disease). Hold the tool with light but safe grip, higher grip force can increase vibration effects.

Whipping air hoses can cause injuries. Always check if air hose is damaged and that the fittings and couplings are not loose.

Use only hardened steel hose fittings (or same strength other fittings) for impact, impulse or vibrating tools.

#### Accessories

Select the best available inserted/mounted accessories/consumables for the lowest possible noise level and vibration. Replace them in case of an increased noise level and/or vibration.

Do not use worn or bad fitting impact sockets or extensions, as this is likely to increase noise and vibration.

For impulse wrenches we advise to use "sleeve drive" sockets to minimize noise and vibration.

Make sure that the inserted/mounted tool/accessory is properly held by the retainer and make sure that the retainer is in good condition. Never use the tool without a retainer as this may cause high speed projectiles.

Only use impact rated sockets when using impact or impulse wrenches.

#### Using the tool:

Before start using the tool, make sure that you are familiar with the workplace and surrounding area.

Always obey the safety regulations for the work area you are working in.

During operating the tool, the operator may be exposed to hazards as crushing, impacts, heat, vibration, cuts, abrasions, etc: Wear suitable gloves.

Any person handling the tool must be able to handle the size, weight and power of the tool.

Always be prepared for normal/abnormal movements/forces generated by the tool.

Keep your body in balance, place your feet safe and secure.

In case of interruption of the air supply, release the lever/trigger.

When using a power tool, you may experience discomfort in your hands, arms, shoulders, neck and other parts of your body.

If you experience symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensation, or stiffness: Do not ignore these warning signs. Stop using the tool, tell your employer and consult a qualified health professional.

Check if the direction of rotation is in the required direction.

Adjust the torque according the requirements for the application, see below paragraph: Adjustments.

Place the tool with the accessory on the bolt/nut screw.

Pull the trigger to start the tool and release the trigger to stop the tool.

Do not overtighten the bolt/nut/screw, a broken part can become a projectile causing danger or injury.

When loosening the bolt/nut/screw may become a projectile causing danger or injury.

Operator should change posture regularly to avoid discomfort and fatigue.

Use hear protection according to employer, health and safety regulations.

Use the impulse wrench only for bolt capacities as specified with the corresponding socket sizes, too big or too heavy accessories can cause damage to the impulse mechanism.

Torque adjustment impulse wrenches

Assemble the hex head plug. During testing this hex head screw must be mounted.

Remove the hex head plug from the front housing, this is placed next the shaft.

Rotate the shaft until a small hole (  $\varnothing$  2 mm ) is visible on the impulse mechanism.

Start always at minimum adjustment and increase the torque until the required torque is achieved.

Shut-off impulse wrenches:

In the case that the tool doesn't shut-off , the tool is probably adjusted too high: adjust lower. If the tool shuts-off too quick, the tool is probably adjusted too low: adjust higher. A too quick shut-off can have a negative influence on the repeatability.

Place the in the box supplied hex wrench ( 1.5 mm ) in the hole so that the hex of the wrench fits in the hex of the adjust screw.

Minimum torque adjustment: the adjustment screw can be set to its end.

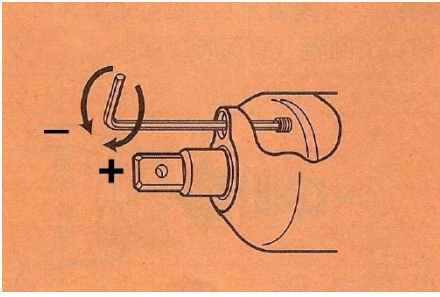
Maximum torque adjustment: rotate the adjustment screw to its maximum (stop) and rotate at least  $\frac{3}{4}$  rotation counter clockwise.

Turning the hex wrench clockwise = higher torque

Turning the hex wrench anti-clockwise = lower torque

The adjust screw can rotate +/- rotations from minimum to maximum adjustment.

Measure the torque always on the actual application with a torque wench or rotary transducer.



The oil in the impulse unit must be regularly replaced. Preventive maintenance is important because if the oil is replaced too late the viscosity changes so the torque will decrease and damage may occur on the internal parts.

Advice is at least once a year or when a certain number of tightening's has been made, whatever comes first.

Oil replacement should only be carried out by trained qualified specialists.

For Yokota Impulse wrenches the advice is to replace the oil after 250.000 cycles on hard joint, one cycle is 0,5 – 1 second impulsing. On soft joints, longer impulsing time per cycle, the oil must be changed earlier.

Maintenance:

Check the tool regularly for loose bolts/screws or parts.

Measure the rpm of the tool regularly, in case of higher or lower rpm than indicated in the technical specifications: Stop using the tool immediate and have it repaired.

In case of power loss: Have the tool repaired.

Only trained and qualified engineers are allowed to adjust or repair the tool.

In case the tool is equipped with a silencer, make sure that this silencer is working properly, a damaged silencer has to be replaced.

In case of disposal of the tool, follow local regulations, so as much as possible can be recycled. Do not throw it in the normal waste bin.

The tool should be maintained regularly to minimize the noise emission and occurring vibration.

Disconnect the air supply during maintenance on the tool.

Intended use:

The user or the user's employer shall assess the specific use that can be present as a result of each use.

Never use the tool otherwise than the tool is designed for and as explained in this manual.

Damages as a consequence of not following this manual, or caused by incorrect use or incorrect repairs, will never be covered by our warranty and we will have no responsibility for it. We reserve the right for technical improvements, without prior notification.

This tool is designed for tightening processes on threaded fasteners, if used otherwise a risk assessment has to be made by the employer/user.

Warranty

The warranty period from the date of purchase is as follows:

- 12 months on Yokota , Toku and Red Rooster tools;
- 3 months on spare parts of tools, which are repaired by us.

Warranty covers material or construction mistakes of the manufacturer, which are clearly definable. Replacement of parts or repair by an official Yokota/Red Rooster service workshop is free of charge, when the tool is covered by warranty. Freight or postage is for the account of the buyer. Damage attributable to a normal wear, overloading or



incorrect use is excluded from warranty. Always consult this manual! Replacement of tools as a consequence of warranty claims is no part of the warranty arrangements.

Also claims for loss of production and/or other damages are excluded from this warranty.

Repairs under warranty can only be considered, when the tool is in its original state and it is accompanied by a copy of the purchase invoice. Warranty claims have to be made through the dealer, who has supplied the tool concerned.

#### Declaration of Conformity

### **CE** Declaration of Conformity

Brand: Yokota

Product: Impulse Wrenches

Type: E-M500

Capacity: 3 - 10

OR0025

WE, RAMI YOKOTA B.V. , hereby declare that this product is conform the European Directive 2006/42/EG and, the standard EN ISO 11148-6

Technical file available from Rami Yokota BV:

RAMI YOKOTA BV

De Ruyterkade 120

1011 AB Amsterdam

THE NETHERLANDS

Date: 09-05-2022

Place: Amsterdam

Signature:



N. Nauta

Managing Director RAMI YOKOTA BV

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