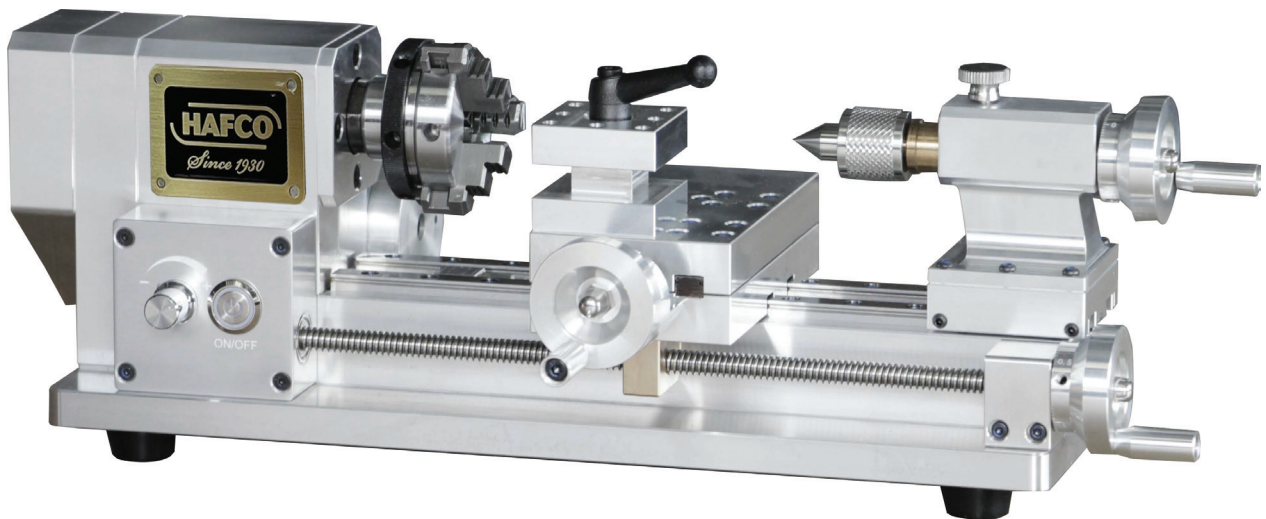


HAFCO **METALMASTER**



Edition : 1.0
Date: (12/25)

Instruction Manual

VARIABLE SPEED LATHE **AL-50V**

Order Code: (L670)

MACHINE DETAILS**MACHINE.**

Variable Speed Lathe

MODEL NO.

AL-50V

SERIAL NO.**DATE OF MANF.**

Imported by

Australia

www.machineryhouse.com.au

New Zealand

www.machineryhouse.co.nz**NOTE:**

This manual is only for your reference. At the time of the compiling of this manual every effort to be exact with the instructions, specifications, drawings, and photographs of the machine was taken. Owing to the continuous improvement of the HAFCO METALMASTER machine, changes may be made at any time without obligation or notice. Please ensure the local voltage is the same as listed on the specification plate before operating any electric machine.

SAFETY SYMBOLS:

The purpose of safety symbols is to attract your attention to possible hazardous conditions



Indicates a potentially hazardous situation causing injury or death



Indicates an alert against unsafe practices.

Note: Used to alert the user to useful information

**WARNING!**

The machine is the sole responsibility of the owner for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training, proper inspection and maintenance, manual availability and comprehension. The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

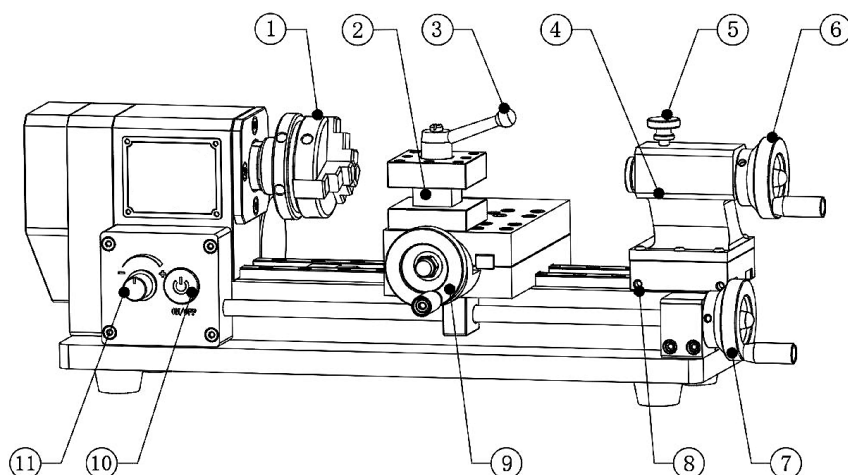
SPECIFICATIONS

Order Code	L670
Model	AL-50V
Maximum workpiece diameter for clamping	50 mm
Maximum workpiece clamping length	95 mm
Worktable X-axis total travel	50 mm
Total Z-axis travel of workbench	70 mm
Total Z-axis travel of tailstock	70 mm
Tailstock Taper	MT0
Machining accuracy	0.003 mm
Rated voltage	24 Volt
Output Torque	800g.cm-1500g.cm
Machine dimension	400x215x150mm
Net Weight	6.4kg

IDENTIFICATION

Become familiar with the names and locations of the controls and features shown below to better understand the instructions when mentioned later in this manual.

- 1 Chuck
- 2 Rotating tool post
- 3 Toolpost locking handle
- 4 Tailstock
- 5 Tailstock extension tongue locking screw
- 6 Tailstock hand wheel
- 7 Z-axis hand wheel
- 8 Tailstock Z-axis locking screw
- 9 X-axis hand wheel
- 10 Power switch
- 11 Speed control knob



SAFETY NOTES

1. Do not allow children to approach or play with this device. It is suitable for operation and use by children over 16 years old. Teenagers should use this device under supervision.
2. Do not hold the power cord and let it hang or shake the machine, as it may cause the power cord core to break and not work properly.
3. Do not use in damp environments to prevent water or other corrosive liquids from entering the machine, in order to avoid causing malfunctions and damaging the machine.
4. After use, please turn the speed control knob to the far left, turn off the power button, and disconnect the power plug from the socket.

SPECIFIC LATHE SAFETY

DO NOT use this machine unless you have been instructed in its safe use and operation and have read and understood this manual



Safety glasses must be worn at all times in work areas



Long and loose hair must be contained



Gloves must not be worn when using this machine



Sturdy footwear must be worn at all times in work areas



Close fitting/protective clothing must be worn



Rings and jewellery must not be worn.

PRE-OPERATIONAL SAFETY CHECKS

- ✓ Locate and ensure you are familiar with all machine operations and controls.
- ✓ Ensure all guards are fitted, secure and functional. Do not operate if guards are missing or faulty.
- ✓ Check workspaces and walkways to ensure no slip/trip hazards are present.
- ✓ Check the job is clamped tight in the chuck.
- ✓ Remove all tools from the bed and slides of the machine.
- ✓ Ensure the correct speed for machining process is selected.
- ✓ Remove the chuck key before starting the lathe.

OPERATIONAL SAFETY CHECKS

- ✓ Before making adjustments or measurements, switch off and bring the machine to a complete stand still.
- ✓ Always remove the chuck key from the chuck.

ENDING OPERATIONS AND CLEANING UP

- ✓ Switch off the machine when work completed.
- ✓ Reset all guards to a fully closed position.
- ✓ Avoid letting swarf build up on the tool or job. Stop the machine and remove it.
- ✓ Leave the machine in a safe, clean and tidy state.

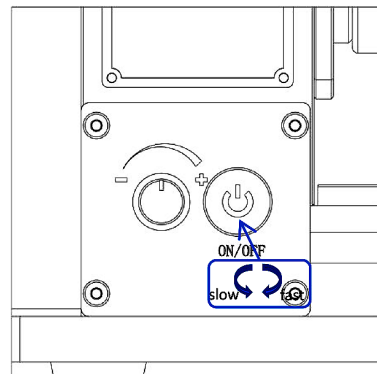
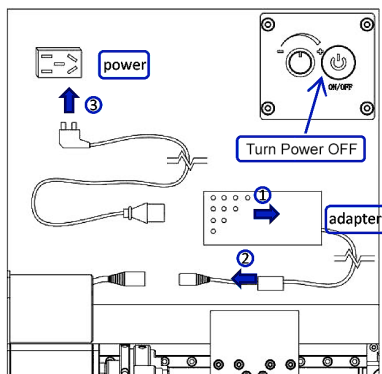
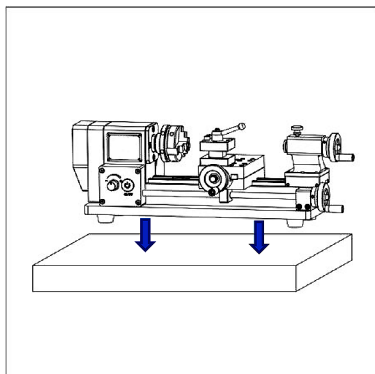
DON'T

- ✗ **Do not** use faulty equipment. Immediately report suspect machinery.
- ✗ **Do not** try to lift chucks or face plates that are too heavy for you.
- ✗ **Do not** leave the machine running unattended.
- ✗ **Do not** attempt to slow or stop the chuck or revolving work by hand.
- ✗ **Do not** leave equipment on top of the machine.

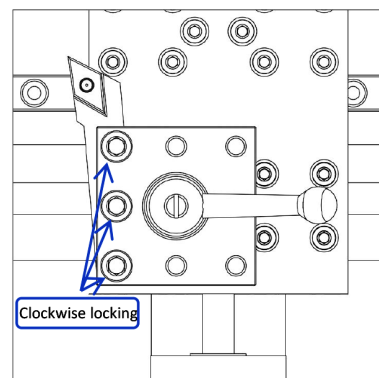
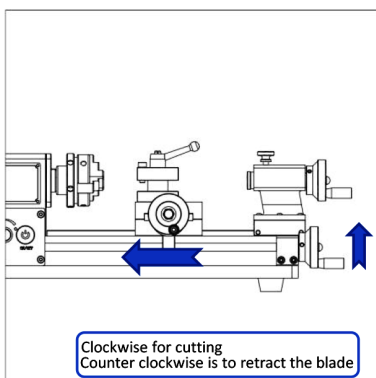
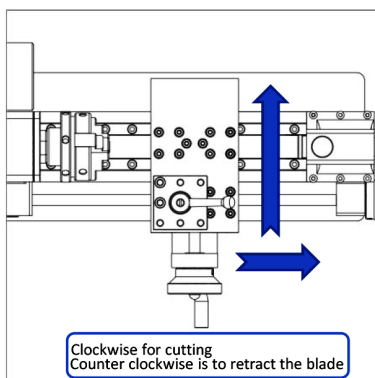
POTENTIAL HAZARDS AND INJURIES

- ☐ Flying objects such as the chuck key left in chuck.
- ☐ Cutting tool injury when cleaning, filing or polishing.
- ☐ Hair/clothing getting caught in moving machine parts.
- ☐ Metal splinters and swarf.
- ☐ Eye Injuries.

OPERATION



1. Open the packaging box, take out the equipment and place it on a stable and flat platform. Count the items according to packing list.
2. Ensure that the device power button is turned off, connect the plug, adapter, and motor wires in sequence, and power them on.
3. Press the power switch, the power light will turn on, rotate the speed control knob to control the spindle speed, and press the power switch again to turn it off.



4. The X-axis hand wheel controls the longitudinal direction.
5. Z-axis hand wheel controls the lateral direction.
6. Insert the 10x10 Outer round cutting handle and use an H4 inner hexagon spanner to tighten tool post locking screw.



CAUTION!

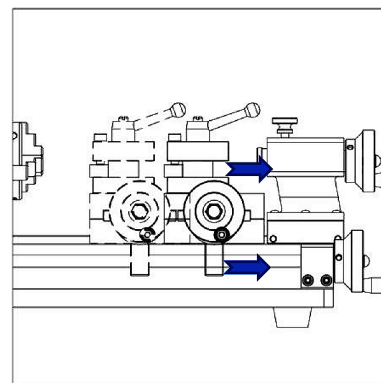
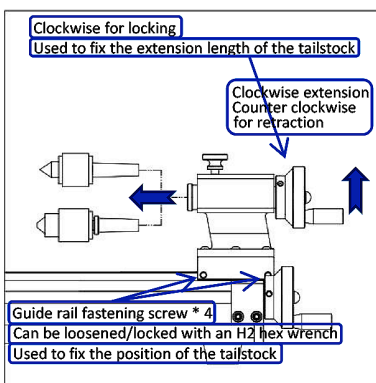
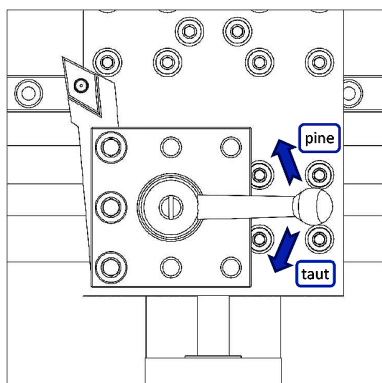
A prepared list of safety guidelines can never be complete. Every workshop environment is different. Always consider Safety first, as it applies to your individual working conditions. Use this machine and other machinery with caution and respect. Failure to do so could result in serious Personal injury, damage to the equipment, or poor work results.



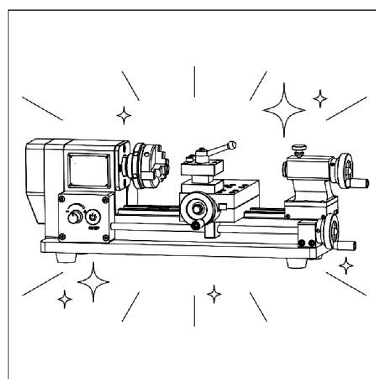
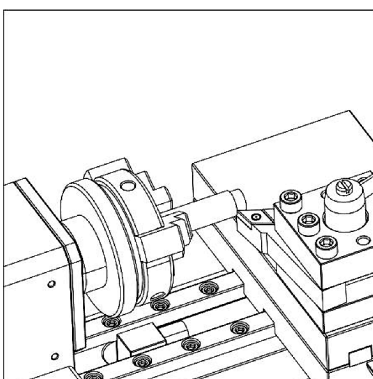
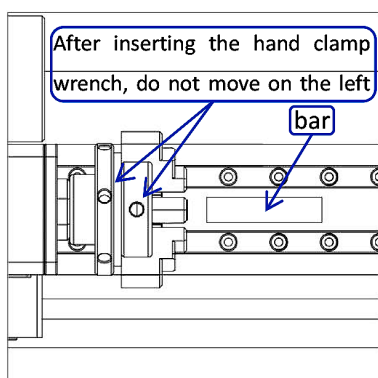
WARNING!

Read and understand the instructions in this manual, before operating this machine to reduce the risk of serious injury or even death. Save all warnings and instructions for future reference.

OPERATION Cont.



7. When installing multiple cutting tools, the tightening handle can be loosened to change the direction of the rotating tool post.
8. Drill chuck or MT0 Tools can be installed in the tailstock according to usage.
9. Move the workbench to the far right for easy installation of bar material.



10. Place the bar material into the chuck and lock it with chuck key.
11. Turn on the power switch, adjust the speed control knob, control the X and Z axis hand wheels, and start the cutting work.
12. After the cutting work is completed, turn off the power and unplug it, clean the waste generated by cutting, place it in a dry and ventilated place, and protect the machine from dust and moisture.

CLEANING AND MAINTENANCE

Before repairing, cleaning, and maintaining the machine, ensure that the power is disconnected, turn the speed control knob to the far left, and wait for the chuck to completely stop before proceeding with the operation.

Regular cleaning and maintenance of the machine is beneficial for extending its service life.

1. **Surface:** Can be wiped with a cloth or dipped in a neutral cleaning agent.
2. **Screw rod and guide rail:** Use a brush to remove debris, and then apply a light machine oil with the brush to prevent rust.

TROUBLESHOOTING

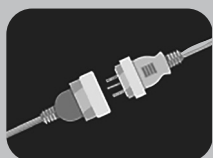
Review the troubleshooting and procedures in this section if a problem develops with your machine. If you need replacement parts or if additional help with a procedure is required, then contact your distributor.

Note: Make sure you have the model of the machine, serial number, and manufacture date before calling.

Fault	Analysis	Solution
The chuck cannot rotate.	1. The power plug is not securely plugged in. 2. Not pressing the power switch. 3. The speed control knob has not been turned.	1. Unplug and reinsert the power supply. 2. Press the power switch. 3. Turn the knob to the right.
The workbench cannot be moved.	1. The lead screw is stuck by iron filings. 2. The workbench locks are on	1. Clean up iron filings. 2. Release the workbench lock
The workbench is loose	1. Loose screws on the upper surface. 2. Worn lead screw	1. Tighten the screws 2. Replace lead screw and nut.
The tool post cannot rotate	1. The tightening handle not released. 2. Iron filings between the workbench and toolpost	1. Release the locking handle 2. Remove toolpost and clean.
The tailstock cannot move	1. The base is locked and fixed with Z-axis fixed locking screws	1. Loosen the screws
The tailstock cannot be extended	1. Locked and fixed by the tailstock tongue locking screw	1. Loosen the screws
When drilling, the tailstock moves to the right	1. The Z-axis locking screw of the tailstock is loose	1. Tighten the locking screw

PACKING LIST

Item	Part Name	Specifications	Qty.	Remarks
1	Hand held chuck wrench		1	
2.	Drill chuck wrench		1	
3	Locking screw	M5x15L	8	
4	Power line	24V/3A	1	Plug+power adapter
5	Drill chuck arbour	MT0	1	
6	Drill chuck	0.3-4MM JT0	1	
7	Cutting Tool	SDJCR 1010H07	1	Including locking wrench and DCGT070202-AK blade
8	Center drill	1.0x60°	1	
9	Brass rod	D10x50	1	
10	Hex Key	4mm	1	
11	Hex Key	2mm	1	
12	Micro Lathe	400x215x150	1	Packed in a dust bag first and then packed in the box
13	Safety Notice	Paper	1	First, put it in a sealed bag separately and then place on the top layer inside the box.
14	Operation Instructions	Paper	1	
15	Packing list	Paper	1	



WARNING!

Always disconnect the power to the machine before servicing or doing maintenance to the machine.



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

IMPORTED BY

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