



# MaltZilla KL15776

# **Instruction Manual**

## **KegLand Distribution PTY LTD**

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The MaltZilla has an integrated high torque 24V motor which is powerful enough to chew through malt or hard grains such as wheat or malted corn with ease, with the rollers staying as sharp as day one even after extended use.

To get started you will need to choose a power supply. There are a number of suggested power supply options providing you with flexibility in how you choose to power your mill, including:

- 24V DC (20Amp) Power Supply with Anderson Plug un-wired (<u>KL10856</u>)
- 24V DC Power Supply For Manual Cannular and MaltZilla (KL12539)
- 24V DC Power Supply For Semi-Auto/Manual Cannular and MaltZilla (<u>KL17343</u>)

The MaltZilla can also be powered by a car battery or deep cycle battery using a power cord with a 40Amp rated Anderson Plug x Alligator Clips (<u>KL12348</u>).

If you are using an unwired power supply or a battery as your power source it is a good idea to check the polarity of the DC voltage which should be positive. This can be checked using a multimeter. Negative polarity can result in damage to the motor after extended use and/or grain not being efficiently drawn into the mill.

#### Hopper Installation and Mounting Maltzilla to Base Board

Remove the two, bottom central 5mm hex bolts and insert the bottom hopper feeder pipe and then secure with the 5mm hex bolts as shown below:





If using a 12L Aqua To Go Cooler Bottle as a hopper then also insert the top hopper feeder pipe and secure with the 5mm hex bolts.



Align the mounting holes on the MaltZilla with the mounting holes on the base board and secure the MaltZilla with three M6 bolts and nuts on the underside of the base board.



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The MaltZilla can be mounted to the top or the bottom of the base board depending on your preference, using the appropriate mounting holes.



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After mounting ensure the MaltZilla has not been installed upside down by investigating the direction that the driven roller spins.

The driven roller should spin in the direction shown below. If your driven roller is spinning in the reverse direction then the direction the MaltZilla is mounted needs to be reversed. (If you are using an unwired power supply, the polarity of the DC Voltage should also be checked. The voltage should have positive polarity).







## Setting Gap Size – Achieving the Correct Crush

The generally accepted rule of thumb for most mills which use knurled rollers is to set the rollers to about a credit card in width. The MaltZilla works via a different milling principle and hence this rule cannot be applied to the MaltZilla as it uses diamonds impregnated into the rollers to grip the surface of the kernel and the friction of pulling the grain through the gap causes a sheering action. When set up with the correct gap size this can leave the entire husk intact reducing the chances of a stuck sparge and maximising mash efficiency. This is in contrast to knurled rollers which push into the grain and chap the grain as it passes through a tight gap.

### Adjusting the Gap Size

Loosen both thumb screws and rotate both detented gap adjustment knobs to change the gap size. Once at the desired gap tighten the thumb screws. Make sure that the thumb screws are not overtightened and the triangular slots on the detented gap adjustment knobs are aligned in the same position. If the triangular slots are not aligned it will result in the gap being wider on one side compared to the other.

#### Achieving the Correct Crush

Rather than adjusting the gap to a pre-determined gap size, instead with the MaltZilla the gap should be adjusted according to the crush. To determine the gap size to achieve the correct crush it is best to run about 200g through the mill and adjust the gap size to produce a good crush by visual inspection of the grain. The husks should be largely intact and the crushed if you press it between your fingers. There should be no grains which are still intact.

Shown to the right is an example of what a crush should look like using the MaltZilla, cracked grain with intact husks.



The friability and kernel size of malted grain can vary between the specific grain, from year to year and between maltsters hence there is no one gap size suits all, therefore, it is best to adjust gap size according to visual inspection of the crush.

#### **Grain Conditioning**

A 2% moisture content (by weight) has achieved the best results from testing. This can be achieved by the use of a misting device while stirring the grain. The grain should then be left for about 6 hours for the moisture to evenly distribute through the grist before being milled.

Grain conditioning results in reduced grain dust being produced and a more even crush.

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#### **Operating Procedure**

- 1. Attach MaltZilla with hopper firmly to base board or bench
- 2. Set the desired gap size
- 3. Plug power supply into standard 10A AC wall outlet or alligator clips onto battery.
- 4. Turn the power switch on the wall outlet to "On"
- 5. Place a bucket under the MaltZilla to collect milled grain
- 6. Load grain into the Hopper

**Note:** Ensure the MaltZilla is on and the driven roller is spinning prior to loading grain into the hopper.

#### MaltZilla Maintenance

#### Cleaning

The MaltZilla should be cleaned after each operation by using compressed air to blow debris out of the mill. Any debris surrounding the MaltZilla can be collected using a vacuum. The resistance of the non-driven roller should be checked by rotating the roller with your fingernail, if it does not rotate with minimal resistance or you are finding that the MaltZilla is not feeding grain from the hopper during operation then the MaltZilla needs to be disassembled and the rollers and housing cleaned thoroughly. The MaltZilla can be disassembled and cleaned quickly and easily via the following:

1. Undo the 8 hex bolts on the side of the MaltZilla using an xmm allen key and remove the housing.









3. Remove the circlip, bearing and shim washer from each side of the non-driven roller. The bearing can be removed by levering it up with a flat head screw driver. Remove any debris.



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4. Remove the bearing and shim washer from the driven roller and then remove the driven roller off the drive shaft. The bearing can be removed by levering it up with a flat head screw driver. Remove any debris.









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5. Clean the driven and non-driven rollers using a steel wire brush and clean any debris from the housing.







#### **Clearing A Jam**

If the rollers jam, immediately turn the power off at the wall outlet. Unplug the MaltZilla from the power supply. Clear any obstruction from the rollers. If no obstruction is apparent externally, then disassemble the maltzilla and remove any debris internally.

# Warranty (Australia)

The MaltZilla comes with a 1 Year Warranty when sold in Australia.

To lodge a warranty claim in Australia please forward as many visual pieces of supporting

information and a detailed description of your issue to beer@kegland.com.au

If you purchased your unit from an international distributor, you will be required to go through their warranty claims process.

For a full terms and conditions, please visit our website here -> Terms & Conditions