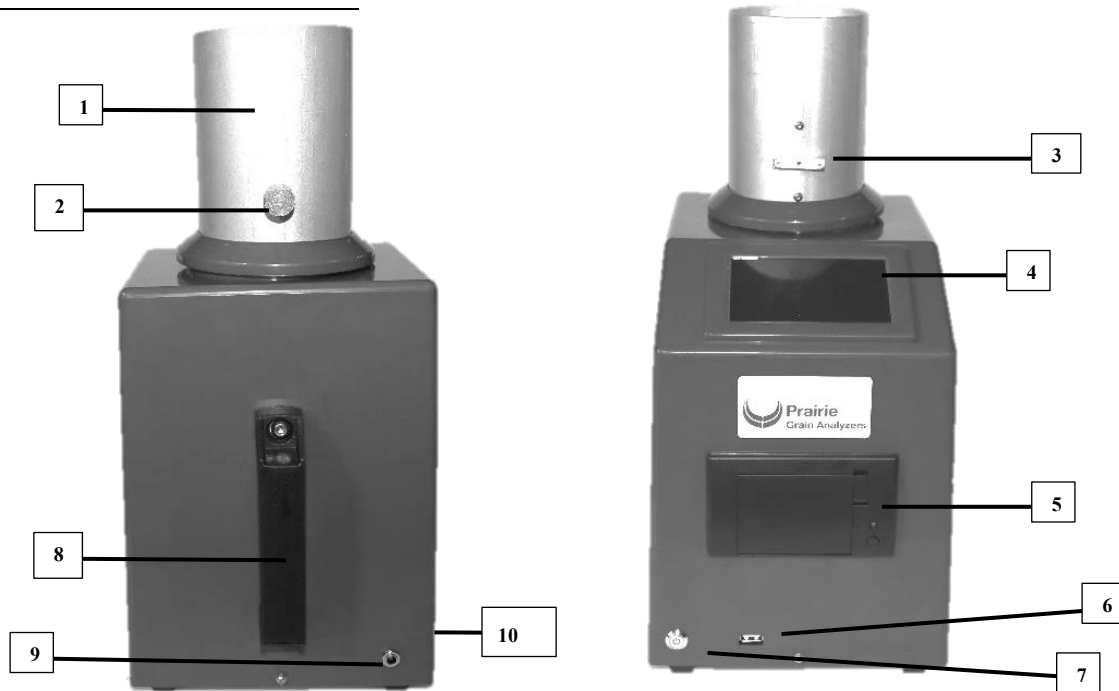

Prairie Grain Analyzers Inc. MA-405 Moisture Analyzer



MA-405 User Manual

FEATURES



#	ITEM	DESCRIPTION
1	Removable Cup	Removable grain cup
2	Release Button	Pushing this button will dump the sample
3	Pin Heads	The pin heads support the wings while grain is being tested, and will release the grain once the release button is pressed.
4	LCD Screen	This touch screen allows the operator to navigate through the menu and displays results
5	Printer	Allows the operator to print results
6	USB Port	USB port for storage of data
7	Power Button	Pushing this button will turn ON/OFF the machine
8	Carrying Handle	Operator should carry the machine by holding onto this handle
9	Charging Port	Plug the adaptor into this port to charge the machine
10	Reset Hole	A small hole on the side of the machine

INTRODUCTION

The MA-405 is the first portable digital Canadian grain moisture analyzer that is suitable for all grains published by the Canadian Grain Commission (CGC) and United States Department of Agriculture (USDA). MA-405 can measure moisture, test weight, and the temperature for 50 different grains. The portability feature of the device enables farmers to easily measure moisture anywhere and anytime. The MA-405 can connect to wifi which allows the users to update their device with new versions of the software. The built in Bluetooth allows the user to connect to their smart phone and use the app to share, store, and view data. The device contains rechargeable batteries allowing the user to charge the device easily, and use it in any remote location. For data recording purposes, the MA-405 has a built in thermal printer and a USB port.

PACKAGE CONTENT










MA-405
Charger
Carrying Case
User Manual
200 Gram Weight

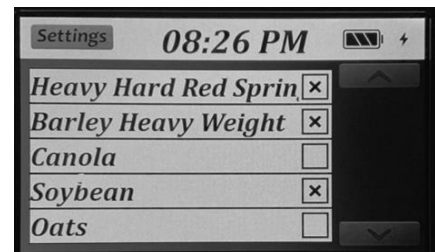
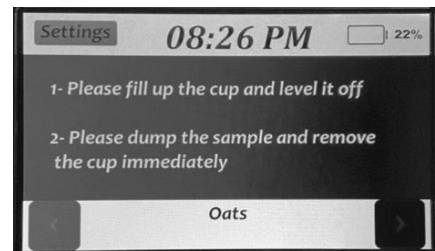
SPECIFICATIONS

Length: 7.5 inches
Height: 15.5 inches
Depth: 10.5 inches
Weight: 2.4 kg
Load Capacity: 4 kilograms
Suggested Operating Temperature: 5°C to 35°C or 40°F to 90°F

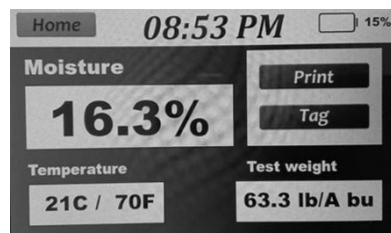
Operations

Please charge the machine daily, overnight prior to usage during harvesting season. **DO NOT** charge the machine in the combine or any other motor vehicle. When the machine is charging, the power button should be red in color. When the machine is fully charged the red color on the button will turn off. When the machine is out of battery, leave it plugged in for a minimum of 4 hours to charge. Operate the machine at room temperature to ensure accurate test results.

-  Turn on the device using the power button on the bottom left corner of the machine. Hold the power button down for 3 seconds and release when you hear the beep indicating the machine is on. Ensure the battery is charged or the device is connected to the power supply charger prior to starting the device.
-  Position the MA-405 on a completely flat horizontal surface. Ensuring the scale is placed on a flat surface will ensure that accuracy of testing. Ensure that the grain cup is removed and there is no grain in the machine, press OK to proceed.
-  As the device powers up, the LCD screen will display the main screen with the most recently used grain. To select a different grain, use the arrows on the bottom right and left corners of the screen to scroll through the list.
-  To reduce the list to your most commonly used crops, select the “Settings” on the top right hand of the screen, then select “Crops”. In the “Crops” page select up to 8 of your most commonly used crops. The home page will now only show the 8 crops selected. This can always be edited by going back to the “Crops” and removing/adding new favorite crops. Click on “Settings” to save your selection.
-  Pour the grains into the grain cell and level off. Pour the grain into the **larger compartment** of the grain cell.
-  Place the grain cell on top of the machine. The grain can be dumped by pushing the release button. Remove the grain cell immediately after dumping.
-  The results will instantly be displayed on the LCD screen. Here, the user can tag or label the result by using the Tag 1, and 2.
-  The user can print the results using the print button. Please note that “Test Weight” units can be changed from lb/A bu by simply pressing the test weight button.
-  To return to main menu, empty the device of the grain and press “Home”.

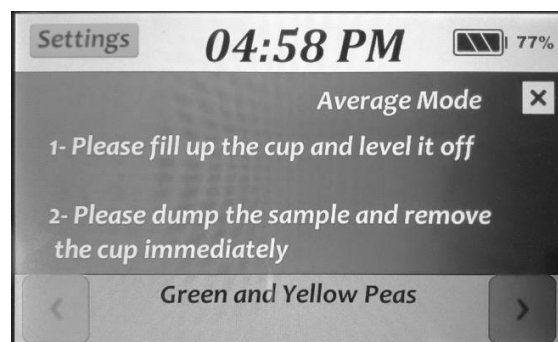


Reset: If your machine freezes during use, reset the machine. To reset insert a paper clip in the reset hole (lower left side of machine). Your machine will turn off and reset.



Average Mode

This setting allows the user to average the moisture results for 3 tests on the same sample. To use the average mode, click the box next to average mode on the home screen. Complete testing as outline previously. Once the test is repeated 3 times, the machine will automatically average the 3 results and display the results on the screen. To exit out of the average mode, unclick the box next to average mode on the home screen.



Printer

This machine requires 2 ¼ inch thermal printer (60' roll or smaller) paper that can be purchased online or in local department stores.

To load paper gently pull the load paper compartment tab until the paper compartment pops open, remove the old roll. Place the paper directly into the machine. You want to place the roll so that the roll dispenses toward the front of the machine and feeds from the top of the machine. Close the lid and test the paper by feeding some paper using the paper feed button on the bottom right corner of the printer.



Settings

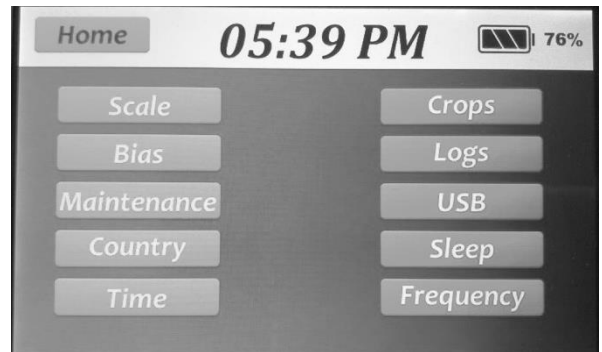
Scale:

- **Scale Calibration:** In the “Settings” press “Scale”. Select “Calibrate Scale”. The machine will prompt you to continue when the device is empty of grain. Please ensure that the grain cell is removed and there is no grain in the machine. Once the machine has calibrated empty, you will need to place the 200-gram weight in the grain tube as shown in the picture (gently place next to the cone) and continue. The device will return to the scale settings once calibration is complete. Please remove the 200-gram weight after calibration is complete.
- **Reset Scale:** In the “Settings” press “Scale”. Select “Reset Scale”. The device will prompt you to check to see if machine is empty and then continue by pressing “Start”. Once the scale has been successfully reset, the device will return to the scale settings.
- **Scale Check:** In the scale settings, press “check scale”. If the machine is empty the scale should read 0, and if the 200-gram weight is placed into the grain tube the scale should read 200 grams.



Device Maintenance: Please contact us if your machine needs to be calibrated. We recommend the MA-405 be calibrated every 2 years.

Bias Calibration: This setting can be used if your moisture testing results are consistently a single variable different from comparison moisture testing. Please contact us if you would like to adjust the offset calibration. Note that the bias is being used on current grain that is selected on your machine. To change grain, return to main menu and change the grain on main screen, then return to change the bias.



Country: In this setting the user can select their region: Canada or US.

Time: In this setting you can update your devices time and date.

Logs: The machine will automatically save previous test results. Scroll using the up and down arrows to view the previous 5 tests.

USB: To save previous results on a USB drive, insert the USB drive into the USB port on the bottom of the machine. Press “charts”. Go back to settings and remove USB. The file will be saved as a “csv” file. To manage this file in excel open a new excel spread sheet. On the top right click “File” in the drop down menu press “Import”. Press the “CSV file” type and click import. Now select the file saved on to the USB drive and open. Then in the next page click “Next”. Then only select “semicolon” for the delimiter and press “Next”. Finally press “Finish”. You should have a table with all you result displayed in the excel spreadsheet.

Do no insert or remove the USB when machine is turned off.

Sleep: In this setting the user can choose sleep time. Option include: Always on (no sleep mode), after 1-5-15 minutes of inactivity.

Wifi: MA-405 can be updated remotely through WiFi. Check for updates periodically as we send updates to fix common bugs. To use this feature please download our App on your smart phone.

Frequency: This setting allows the machine to reset the moisture calibration. Make sure the machine is empty and press reset.

APP

Download our app “PGA Moisture Meter” from the apple store or android to view results on your smart phone.

Smart Phone App Use + Wifi

Download the app “PGA Moisture Meter” from the Apple Store or the Android Store. Press “Scan” on the top right hand corner of the screen and select your moisture testers serial number. You can view results and previous tests on the app

To connect to your machine to WiFi select your machine by serial number. Click on “connect” on top right corner of the page. Your phone will automatically display all nearby networks. Choose the network and enter your password to connect. From here you can update your moisture analyzer to the newest firmware.

**IMPORTANT SAFETY
INSTRUCTIONS**

Do not expose your device to excessive heat or cold, or use near any flame or fire.
Do not use any solvents or thinners to clean your machine. Clean only with a dry cloth.
Do not exceed load limits of scale, this could damage the scale.
Do not hold the machine by the grain tube.
Avoid locations that are subject to vibration.
Avoid installing the machine near televisions, radios, or similar electronic equipment.
Do not remove the machine's leveling feet.
Do not charge the machine with a combine or other motor vehicles. Only use the charger that is sold with the device.
Do not force the gap between the grain tube and the main body tight. This gap as shown in the picture is normal and should stay this way in order for the machine to function properly.



FOR CUSTOMERS IN CANADA & USA: This moisture meter apparatus meets all requirements of the Canadian & American Interference-Causing Equipment Regulations.

We recommend that the MA-405 be calibrated every 2 years. Please contact us prior to harvest time to get your moisture tester ready for the season.



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