



MGM 740

Grain Moisture Meter

Instruction Manual



Disclaimer

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Part Number: 7603221

GTIN: 6298043998307



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Introduction

Marmonix MGM 740 enables rapid and accurate moisture measurement across a wide range of grain types. It is designed for use in grain transfer, procurement, storage, and processing, ensuring reliable quality control and operational efficiency.

Features

1. Variety Selection: 14 grain varieties to choose from
2. Grain Moisture Testing
3. Moisture Standard Setting
4. Moisture Limit Setting with Voice Prompt
5. Deviation Adjustment
6. Voice Reminders: 4 types
7. Dual Rod Sensors: metal probes
8. LCD Backlight Display
9. Low Battery Alert
10. Automatic Shutdown

Safety Instructions

- 1. Warnings:** The probe of this grain moisture meter is extremely sharp. To prevent injury, do not direct the probe toward others or allow children to use it as a toy, ensuring safe handling.
- 2. Cautions:** Avoid contact between the instrument, including its probe, and water or corrosive liquids to prevent damage. Ensure the measuring probe does not contact electrically charged objects, safeguarding the device from potential harm.
- 3. Tips:** During moisture measurement, grain pressure significantly affects results. In multilayered grain samples, lower layers experience higher pressure, leading to elevated test values; adjust measurements based on accumulated experience. For moisture levels of 13% or below, grain pressure has minimal impact, allowing for more consistent readings.

Grain Codes & Ranges

Species	Paddy	Wheat	Corn	Barley	Rice	Sorghum	Fodder
Code	P0	P1	P2	P3	P4	P5	P6
Range (%)	11~55	11~55	11.5~50	11~50	11~50	11~50	11.5~50

Species	Rapeseed	Seed Melon	Sesame	Soymeal	Soybean	Peanut
Code	P7	P8	P9	P10	P11	P12
Range (%)	7.5~44	11~50	7.5~44	7.5~44	10~50	10~50

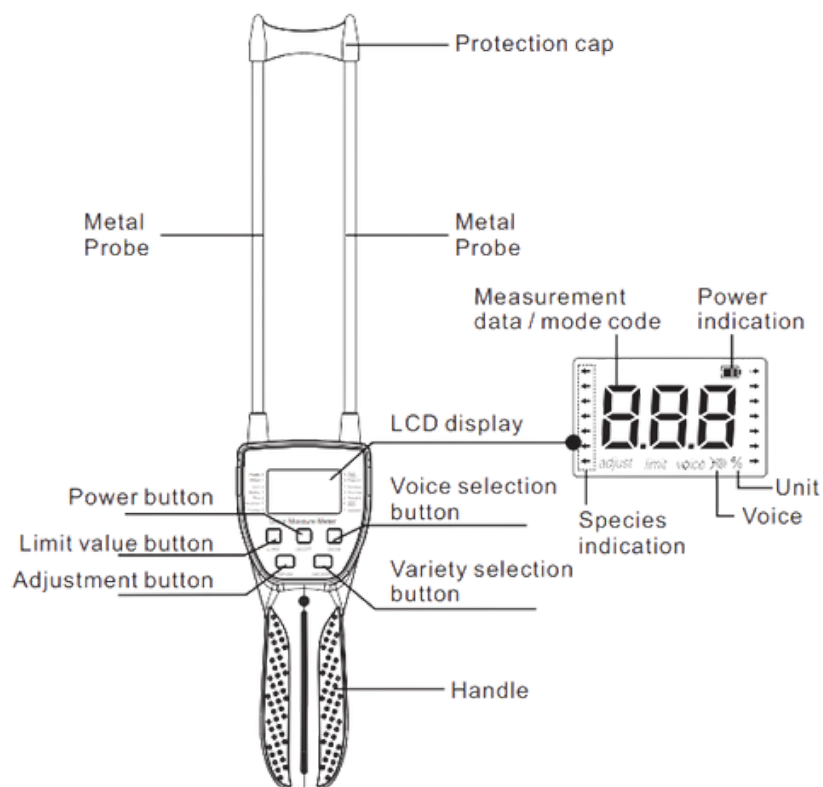
Species	Seed Cotton
Code	P13
Range (%)	7.5~44

Other Parameters:

- **Water Content Display Resolution:** 0.1%, enabling precise moisture readings for accurate grain evaluation.
- **Measurement Principle:** Applies the resistance method, ensuring reliable and consistent detection of grain moisture.
- **Sampling Mode:** Utilizes continuous sampling to deliver real-time, dynamic measurements, improving efficiency.
- **Battery:** Operates on four 1.5V AA batteries, providing dependable performance for extended use.
- **Dual Rod Sensors:** Incorporates metal probes for robust and accurate detection across multiple grain types.
- **LCD Backlight Display:** Features illuminated LCD for clear result visibility under varying light conditions.
- **Low Battery Alert:** Warns users of reduced power to avoid interruptions during operation.
- **Automatic Shutdown:** Engages after inactivity to preserve battery life, extending device longevity and energy efficiency.



Diagram of the product



Operating instructions

(1) Turn on/off the machine

After installing the battery, briefly press the ON/OFF button; the display shows "on," and a voice prompt announces "Turn on," confirming power activation. Press and hold the ON/OFF button; the display shows "off" and a voice prompt announces "Turn off", confirming shutdown. If no operation is performed, the device automatically powers down after 15 minutes to conserve energy.

(2) Measure the moisture content of grain

Short-press the VARIETY button to cycle through grain modes:

P0: Paddy – P1: Wheat – P2: Corn – P3: Barley – P4: Rice – P5: Sorghum – P6: Fodder – P7: Rapeseed – P8: Seed Melon – P9: Sesame – P10: Soymeal – P11: Soybean – P12: Peanut – P13: Seed Cotton.

A total of 14 grain measurement modes are available, with each selection announced by voice to confirm the corresponding grain type.

Long-press the VARIETY button for 3 seconds to reset to P0 mode.

Single Measurement: Insert the metal probe into the sample, and the screen will display the value. When the voice broadcast completes, the single measurement is finalized.

(3) Backlight

After powering on, if no measurement is taken, "Lo" appears on the display in low-battery mode and the backlight remains off. During measurement or setting operations, the backlight activates automatically to ensure clear visibility.

(4) Voice type

Short-press the VOICE button to cycle through modes:

d1 = moisture content value, d2 = high moisture warning, d3 = mute, d4 = DiDi tone. After selection, press the ON/OFF button to save settings and begin measurement.

- **d1 Mode:** When the set limit is exceeded, the grain name and measured value are announced. Example: in P0 Paddy mode with a 10% limit and a measured value of 23.5%, the broadcast is "Paddy moisture content 23.5".
- **d2 mode:** if the measured moisture exceeds the set limit, the device announces "[grain name] moisture too high."
- **d3 Mode:** Only a sound prompt is given during power on/off, with no other audio notifications.

- **d4 Mode:** When the set limit is exceeded, a “DiDi” alarm sounds.

Note: The announced grain name corresponds to the selected mode. The device does not automatically identify grain type.

(5) Limit Value Setting

Short-press the LIMIT button to set the moisture limit value. The default limit is 10% with an adjustable range of 10%–40%. Long-press the button for 2 seconds to restore the default value of 10%. After setting, press ON/OFF to save and begin measurement.


(6) Deviation Adjustment

Following oven method calibration, short-press the ADJUST button to modify within -3% to +5%. The default is 0.0%. Each press changes the value by 0.5% (increasing first, then decreasing). When the value reaches +5, the next press resets it to 0.0%. Pressing again decreases the value by 0.5% per step. After adjustment, press ON/OFF to save and start measurement.

(7) Setting Memory Function

Once parameters are configured, they remain stored even if the batteries are removed. When powered on again, all settings are retained.

(8) Low Battery Alert

When the battery is low, the display shows “  ”, indicating replacement is required.

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