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AMTAST AMT155

AMTAST AMT155 Smart Grain Moisture Meter User Manual

Model: AMT155 | Brand: AMTAST

1. INTRODUCTION

The AMTAST AMT155 Smart Grain Moisture Meter is a precision instrument designed for accurately measuring the moisture content of various grains. This device is essential for farmers, agricultural professionals, and anyone involved in grain storage and processing, ensuring optimal quality and preventing spoilage. Its portable design and user-friendly interface make it suitable for field and laboratory use.

2. PRODUCT FEATURES

- Measures moisture for 18 types of grains, including Wheat, Corn, Japonica Rice, Indica Rice, Soybean, Sorghum, Rapeseed, Millet, Peanut, Barley, Sunflower Seed, Coffee Bean, Cocoa Bean, Sesame, Flaxseed, Almonds, and Cashews.
- Features multi-point calibration with wide-range error correction for enhanced accuracy.
- Equipped with automatic temperature compensation to ensure reliable readings across different environmental conditions.
- Provides fast and convenient readings displayed on an easy-to-read LCD screen.
- Designed for low power consumption; one 9V battery can last approximately one year.
- Includes an automatic power-off function to conserve battery life.
- Comes with a durable carrying case for convenient transport and protection of the device.

3. PACKAGE CONTENTS

Upon unpacking, please verify that all items are present and in good condition:

- AMTAST AMT155 Grain Moisture Meter
- Measuring Cup

- Carrying Case
- User Manual (this document)
- 9V Battery (may not be included due to shipping regulations)

4. PRODUCT OVERVIEW AND DIMENSIONS

Familiarize yourself with the components and physical characteristics of your AMT155 Grain Moisture Meter.



Image 1: AMTAST AMT155 Grain Moisture Meter showing its main components and dimensions. Key parts include the sensor, LCD display, 'SET' button, '+' and '-' adjustment buttons, and 'POWER' button. The device measures approximately 6.29 inches in length, 3.74 inches in height, and 3.54 inches in width at the sensor.

PORTABLE DESIGN

Portable design, only **830g (1.83Lbs)**,
with carrying bag, one 9V battery
can use about **6 months**,
can work anywhere.



Image 2: The AMTAST AMT155 Grain Moisture Meter is shown with its protective carrying case, highlighting its portable design. The device weighs approximately 830g (1.83 lbs), making it easy to transport for on-site measurements.

5. SETUP

5.1 Battery Installation

1. Locate the battery compartment on the underside of the device.
2. Open the battery compartment cover.
3. Insert one 9V (6F22) battery, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely.



REMOVABLE BATTERY



one 9V battery can use about **6 months**

*Batteries are not included in the package due to Aviation Security Check.

Image 3: The underside of the AMTAST AMT155 Grain Moisture Meter, illustrating the removable 9V battery compartment. A single 9V battery (6F22) powers the device for approximately 6 months, and batteries are not typically included in the package due to aviation security checks.

6. OPERATING INSTRUCTIONS

Follow these steps for accurate moisture measurement:



Image 4: A visual guide detailing the six main steps for operating the AMTAST AMT155 Grain Moisture Meter, from powering on to obtaining a reading and understanding battery life.

- 1. Power On:** Press the "POWER" button to start the device. The instrument will automatically enter the working state.
- 2. Select Grain Type:** If the current grain displayed is not the desired grain, press the "SET" button twice continuously. The grain menu will appear on the screen. Use the "+" or "-" buttons to select the desired grain type. Press the "SET" button again to automatically save the selection and return to the measuring mode.
- 3. Fill and Measure:** Fill the measuring cup approximately half full with the grain sample. Gently shake the meter to settle the grains. Then, fill the measuring cup up to the brim (total volume about 70ml). Place the cover on top and apply pressure slowly until the LCD displays the tested value. Release the pressure once the reading is stable.
- 4. Average Reading:** Pour out the sample. Refill with a new sample and repeat the measurement. After more than two measurements, press the "SET" button to display the average value of the samples.
- 5. Adjust Brightness:** In measuring mode, press the "+" or "-" button to adjust the LCD brightness. If the moisture reading is out of the meter's range, the display will show "LOW".
- 6. Battery Life & Auto-Off:** One 9V (6F22) battery can be used for approximately 6 months. The device features

an automatic power-off function after 3 minutes of inactivity to conserve battery life.

7. MOISTURE CORRECTION

The AMT155 allows for adjustment of moisture readings to fine-tune accuracy based on specific grain conditions or reference standards.



- 1. Choose the grains need to adjust first. Press SET key, select "Adjust moisture", press SET key
- 2. Increase or decrease the value by press "+" or "-" key, press SET key to keep it and LCD will back to measuring mode.
- 3. Factory default adjust value is +0.0

Image 5: The AMTAST AMT155 display showing the 'Adjust moisture' menu, indicating the process for calibrating or correcting moisture readings for specific grain types.

1. First, select the grain type for which you need to adjust the moisture reading.
2. Press the "SET" key, then navigate to and select "Adjust moisture". Press the "SET" key again to confirm.
3. Increase or decrease the value using the "+" or "-" keys.
4. Press the "SET" key to save the adjusted value. The LCD will then return to the measuring mode.
5. The factory default adjustment value is +0.0.

8. SUPPORTED GRAIN TYPES

The AMTAST AMT155 is capable of measuring moisture content for a wide range of grains. The device supports up to 22 different types, ensuring versatility for various agricultural needs.



Image 6: A comprehensive visual representation of 22 different grain types that can be tested by the AMTAST AMT155. This includes Jute Seed, Parchment Coffee, Raspberry Seed, Red Bean, Wheat, Maize (Corn), Japonica Rice, Indica Rice, Soybean, Rice, Sorghum, Rapeseed, Millet, Peanut, Barley, Sunflower Seed, Coffee Bean, Cocoa Bean, Sesame, Flaxseed, Almonds, and Cashews.

The supported grain types include:

- Wheat
- Maize (Corn)
- Japonica Rice
- Indica Rice
- Soybean
- Rice
- Sorghum

- Rapeseed
- Millet
- Peanut
- Barley
- Sunflower Seed
- Coffee Bean
- Cocoa Bean
- Sesame
- Flaxseed
- Almonds
- Cashews
- Jute Seed
- Parchment Coffee
- Raspberry Seed
- Red Bean

9. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your AMT155 Grain Moisture Meter.

- **Cleaning:** After each use, especially when changing grain types, ensure the measuring cup and sensor area are clean and free of residual grain particles. Use a soft, dry cloth. Do not use abrasive cleaners or immerse the device in water.
- **Storage:** Store the meter in its protective carrying case in a cool, dry place away from direct sunlight and extreme temperatures.
- **Battery Replacement:** Replace the 9V battery when the low battery indicator appears on the LCD, or if the device fails to power on. Refer to Section 5.1 for battery installation instructions.
- **Calibration Check:** Periodically check the meter's accuracy against known moisture standards or a trusted reference device. If significant discrepancies are found, perform a moisture correction as described in Section 7.

10. TROUBLESHOOTING

If you encounter issues with your AMT155, refer to the following common problems and solutions:

| Problem | Possible Cause | Solution |
|--------------------------|---|--|
| Device does not power on | Dead or incorrectly installed battery | Check battery polarity; replace with a new 9V battery. |
| Inaccurate readings | Incorrect grain type selected; sensor dirty; need for moisture correction | Ensure correct grain type is selected. Clean the sensor area. Perform moisture correction (Section 7). |

| Problem | Possible Cause | Solution |
|------------------------------|--|---|
| "LOW" displayed on screen | Moisture content is below the measurable range | This indicates the grain is very dry. The reading is outside the device's lower limit. |
| No reading after filling cup | Insufficient pressure applied to the cover; sensor obstruction | Ensure the cover is pressed down firmly until a reading appears. Check for any obstructions in the measuring cup or sensor. |

11. SPECIFICATIONS

| Specification | Detail |
|--------------------------|--|
| Product Name | Grain Moisture Tester |
| Brand | AMTAST |
| Model | AMT155 |
| Weight | 1.6 Kilograms (approximately 1.83 lbs) |
| Battery Type | 1 x 9V (6F22) |
| Mounting Type | Table Mount |
| Auto Power-Off | Yes, after 3 minutes of inactivity |
| Temperature Compensation | Automatic |
| Display | LCD |

12. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided at the time of purchase or contact your retailer. AMTAST strives to provide reliable products and customer service.