

# QUICK START GUIDE for mini GAC<sup>®</sup> plus




The mini GAC<sup>®</sup> plus is a portable tester with moisture and test weight reading capabilities. The tester operates using four function keys coupled with a menu-driven operating system. A plastic loading cup provides consistent cell packing for accurate measurements.


## Contents


- mini GAC plus
- 9V Alkaline battery
- Plastic Loading Cup


## Operation

### KEY FUNCTIONS:

 **ON/HOME KEY**  
Momentary press powers the unit on and returns the unit to the Main menu. Holding and pressing will power the unit off. Pressing the Home button on any page discards any changes and return to Home screen.

 **ENTER KEY**  
Selects the item by the cursor or stores data to save.

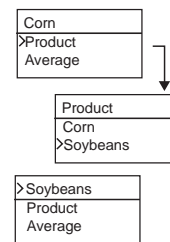
 **UP ARROW KEY**  
Moves the cursor up or increments a selected value.

 **DOWN ARROW KEY**  
Moves the cursor down or decrements a selected value.

**IMPORTANT:** The cell must be empty and the loading cup removed before turning the unit on and while the hour glass symbol displays.

### Selecting Grain

1. Press the On/Home key to Power ON the unit.
2. To select grain type, press the Down Arrow key to position cursor at the Product heading and press Enter.
3. Select grain using the Up or Down Arrow key and press Enter.

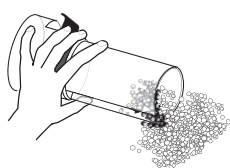
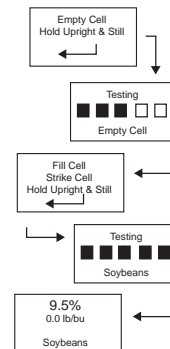


### Grain Sample Testing

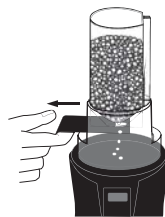
1. Remove plastic loading cup from top of unit.
2. With the Product Name selected at top of display, press the Enter key.
3. The cell must be empty, upright and still to perform empty cell test. When Empty Cell screen displays, press Enter key.

**IMPORTANT:** The empty cell reference measurement is used for all product testing until the unit is powered off. It is critical that the cell be clean and completely empty when the unit is powered ON and the hour glass displays. Keep the measurement cell opening clear of hands or other objects during this period.

3. After empty cell test completes, the Fill Cell screen displays.
4. With the slide closed, scoop or pour grain into the plastic loading cup until full.
5. Place the loading cup on the top of the unit.
6. When secured, pull loading cup slide out to dispense grain into the unit.
7. Remove loading cup and use the level edge of the cup to strike excess grain from the unit.
8. Press Enter to begin test. The unit will display sample testing icons.
9. When grain test completes, press Enter to store sample to Moisture and Test Weight Average or press Home key to return to main menu.



1. Scoop



2. Pull Slide



3. Strike Grain

Menu operation on back side.

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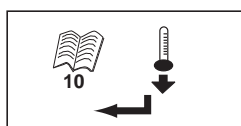


Backlighting

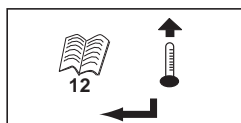
## Error Codes



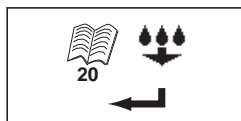
Low Battery Voltage



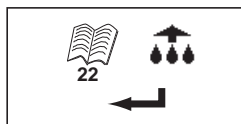
Error 10



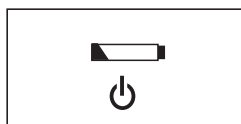
Error 12



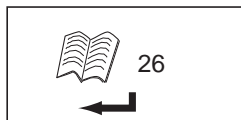
Error 20



Error 22



Dead Battery Warning



Error 26

Menu Selections	Sub Menu Selections	Description	Additional Features
PRODUCT SELECTION		<ul style="list-style-type: none"> <li>Choose grain from list: soybeans, corn, wheat, barley</li> </ul>	After highlighting a desired grain, a 5 second dwell forces a product calibration screen useful for identifying calibration parameters.
AVERAGE	Add to	<ul style="list-style-type: none"> <li>Up to 10 moisture and weight values can be stored. If all registers are full when adding a new value, the value in location #1 will be replaced with the new value.</li> </ul>	
AVERAGE	Read	<ul style="list-style-type: none"> <li>Provides the moisture and weight average of all values.</li> </ul>	Using the Up or Down Arrow key at the Average screen scrolls through individual samples that make up the total average.
AVERAGE	Clear	<ul style="list-style-type: none"> <li>Resets moisture and weight average for product selected.</li> </ul>	
BIAS	Moisture	<ul style="list-style-type: none"> <li>Alters the moisture readout value to the desired value (i.e. to match grain elevator).</li> </ul>	
BIAS	Test Weight	<ul style="list-style-type: none"> <li>Alters the weight readout value to the desired value (i.e. to match grain elevator).</li> </ul>	
SETUP	Language	<ul style="list-style-type: none"> <li>10 Languages available: English, French, German, Italian, Spanish, Portugese, Dutch, Danish, Polish, Hungarian</li> </ul>	Each language has its own set of calibrations.
SETUP	Test Weight	<ul style="list-style-type: none"> <li>UNITS: Allows selection of Units in lb/bu or kg/hl</li> <li>RESULTS: Show or hide Test Weight on display</li> </ul>	
SETUP	Backlighting	<ul style="list-style-type: none"> <li>Turns display backlighting on or off</li> </ul>	
SETUP	Contrast	<ul style="list-style-type: none"> <li>Adjusts contrast values on display</li> </ul>	Using the Up key darkens the contrast of display and the Down key lightens the contrast of display.
SETUP	Power	<ul style="list-style-type: none"> <li>Cycles through list of power off durations.</li> </ul>	10, 20, 30, 45, 60, 90 and infinite seconds are available. Infinite option requires manual power down using Home key.

## ERROR CODES

The mini GAC<sup>®</sup> plus shows error codes on the display when an abnormal event occurs. An error may be acknowledged by pressing the Enter key to return to normal operation.

**Low Battery Voltage**-Displays when the battery voltage falls below 6.4V but is above 6.2V. When the battery voltage is low, the unit is still capable of making accurate measurements, but the battery should be replaced soon. Pressing the Enter key allows operation to continue and the low battery warning will not display again during the current power up cycle.

**Error 10, Measured Temperature is Below Minimum**-The cell temperature is measured on start up and displays if the temperature is below -4° F (-20° C). Pressing the Enter key causes the cell temperature measurement to repeat and operation will proceed if the cell temperature is above the minimum, otherwise Error 10 displays again.

**Error 12, Measured Temperature is Above Maximum**-The cell temperature is measured on start up and Error 12 displays if the temperature is above +158° F (+70° C). Pressing the Enter key causes the cell temperature measurement to repeat and operation will proceed if the cell temperature is below the maximum, otherwise Error 12 displays again.

**Error 20, Measured Moisture is Below Lower Limit**-Error 20 displays if the measured product moisture is below the lower limit of the product calibration. Pressing the Enter key returns operation to the Main menu.

**Error 22, Measured Temperature is Above Upper Limit**-Error 22 displays if the measured product moisture is above the upper limit of the product calibration. Pressing the Enter key returns operation to the Main menu.

**Dead Battery Warning**-Displays when the battery voltage falls below 6.2V. When the battery voltage is lower than 6.2V, the unit is not capable of making accurate measurements so the user is not allowed to proceed, only to power off the device.

**E26, Moisture Measurement Indeterminate**-Error 26 displays when the unit is unable to converge on a moisture estimate. The cell should be emptied and another attempt made to measure the sample. Pressing the Enter key returns operation to the Home page of the Main menu.