

# INSTALLATION INSTRUCTIONS

---



## MINI GAC<sup>®</sup> PC APPLICATION TOOL

DICKY-john's PC Application Software tool provides a convenient method to edit grain calibrations in the mini GAC unit via a computer.

### IMPORTANT

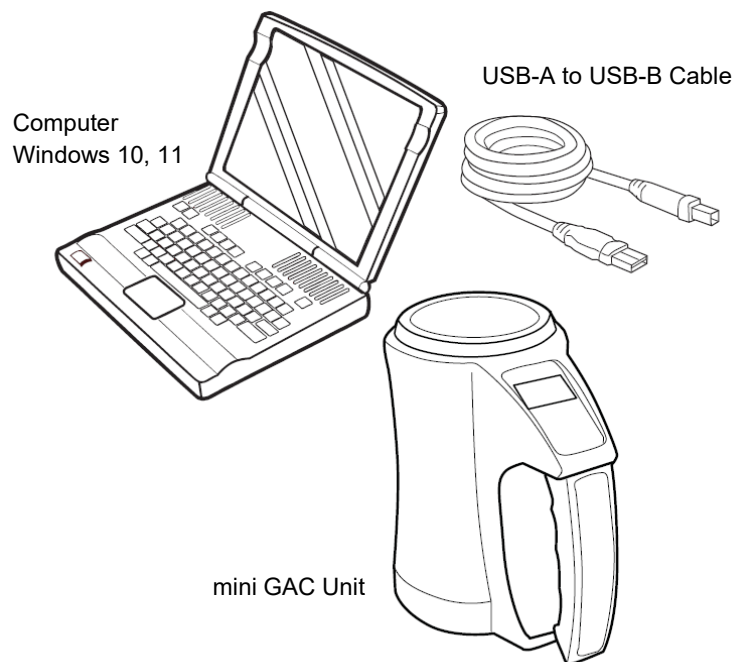
Grain calibration values vary based on region. Regions outside of North America should obtain calibrations from a local distributor.

The mini GAC application software is compatible with Windows 10 and 11 operating systems.

**Figure 1**

#### **Downloading Requirements**

---





## PC SOFTWARE INSTALLATION

### To Install:

1. At the [www.dickey-john.com](http://www.dickey-john.com) home page, navigate to the mini GAC PC Application software by clicking on the following path:  
Products > Moisture Testers > miniGAC/MiniGAC Plus > miniGAC PC Application Tool
2. Click to open the Application Setup Wizard.

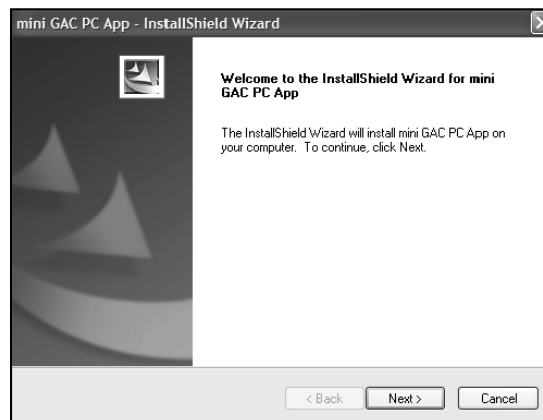
### APPLICATION INSTALLATION WIZARD

3. Follow the wizard instructions to complete the software download.
4. If you choose "Run", the software file destination defaults to C:\Programs\DICKY-john\mini GAC PC App unless redirected to another file location during setup.

**Figure 2**

**Application Wizard Main Screen**

---



6. After a successful installation:
  - From the Start/Programs menu, click the **mini GAC PC App** to start the PC application tool
  - (Optional) Copy the PC Application Tool to the desktop

# INSTALLATION INSTRUCTIONS

---



**NOTE:** Calibrations for download to the mini GAC must be manually entered into the PC Application. See Page 5 for instructions.

**NOTE:** mini GAC functions are inoperable while connected to the PC Application Tool.

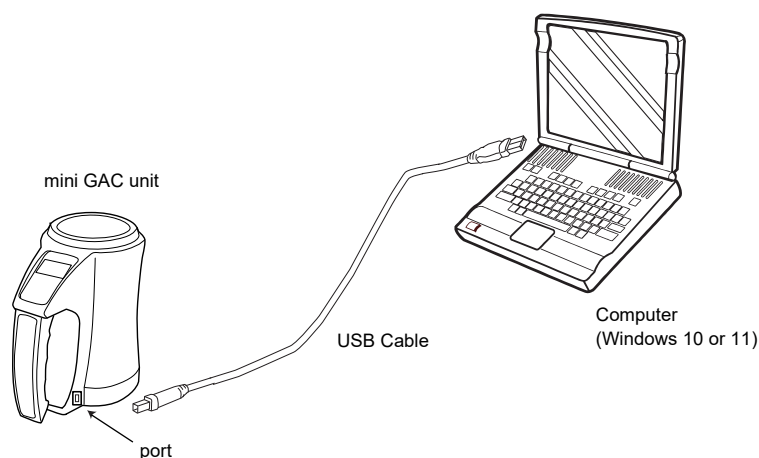
## HARDWARE CONNECTION

To download grain calibrations from the computer to the mini GAC, a USB cable is required.

1. Connect the USB cable to an available USB computer port.
2. Remove the dust protector from the mini GAC port located on the bottom of the unit near the handle and connect the other end of the cable.
3. When properly connected, the USB symbol will appear on the mini GAC display. The mini GAC will power on when it is plugged in, however, if the unit sets idle for a period of time, it will eventually turn off.
4. If the mini GAC unit is off, press the on/off button to power on.

**Figure 3**  
**USB Connections**

---



## GRAIN CALIBRATION CONSTANTS

The Moisture Meter Calibration Constants document available at the DICKEY-john website provides the latest USDA certified calibrations. This form can be printed as a reference guide when manually entering updated constants into the mini GAC PC Application Tool for download to the mini GAC unit.

**NOTE:** Grain calibration values vary based on region. Regions outside of North America should obtain calibrations from a local distributor.

1. Navigate to the following path to find the calibrations constant document:  
Products > Moisture Testers > miniGAC/MiniGAC Plus > miniGAC PC Application Tool
2. Select the miniGAC / miniGAC Plus Calibrations Constants download.
3. Click to open.
4. Print the Calibration Constants document or write down the constants to update.

# INSTALLATION INSTRUCTIONS

---



## PC APPLICATION TOOL

The following functions are found on the main screen of the PC Application Tool.

### File

- Opens files that are saved to the computer for download to a mini GAC.
- Saves calibration files to the computer as a .txt file at a user-specified location.

### Tools

- Connects and disconnects communication with the mini GAC.

### About

- Provides information regarding the PC Application Tool software and version.

### Language

- A drop down list of languages automatically uploads from the mini GAC to the PC Application Tool.

### Product

- A drop down list of products automatically uploads from the mini GAC to the PC Application Tool. Up to 20 products per language are stored on the mini GAC.

### Get File

- Uploads the selected product's grain calibrations from the mini GAC to the PC Application Tool.

### Delete File

- Delete the selected product file on the mini GAC that is not used. New product files can be created to replace the deleted ones.

### Send File

- Downloads the product grain calibrations from the PC Application Tool to the mini GAC.

### Product

- The Product section is the area that grain calibrations are manually entered for download from the PC Application Tool to the mini GAC.

### Advanced

- Advanced features allow entry of moisture and test weight adjustments and entry of Auto Ranging parameters for download to the mini GAC.

Refer to the Advanced Features section.

# INSTALLATION INSTRUCTIONS

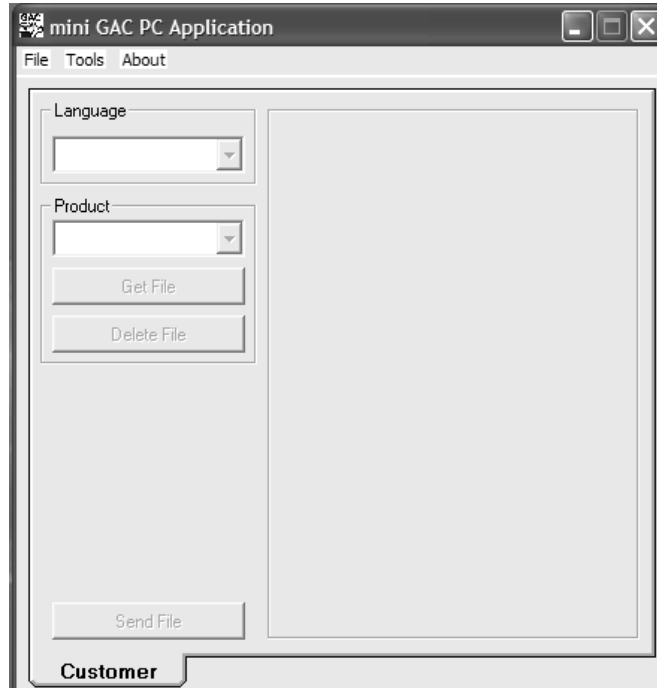


## USING THE PC APPLICATION TOOL

1. Open the mini GAC PC Application Tool file. The USB symbol must be displayed on the mini GAC unit for the communication between the PC and the unit to be active.
2. The Main PC Application page will display.

**Figure 4**

### PC Application Main Page



*NOTE: Language settings cannot be changed on the mini GAC unit using the PC Application Tool.*

3. The language and product files will automatically populate with the mini GAC unit settings, refer to (Figure 5).
4. Use the Product drop down box to select the appropriate grain to update.
5. To view the current settings stored on the mini GAC, press the **Get File** button. The existing calibrations loaded on the unit will automatically populate the Product fields.
6. To change a product name and/or constant, select the appropriate field and manually enter the desired entry. New products can be added by selecting a blank Grain Type Slot, or update existing products by selecting one. If no spots are available a product will have to be deleted before adding a new product.
7. When all grain calibrations have been entered, verify that the Check Sum (Ck Sum) field totals 55. If the total is greater or less than 55, the input box will change from green to red indicating an invalid constant has been entered and the calibration will not download to the mini GAC.

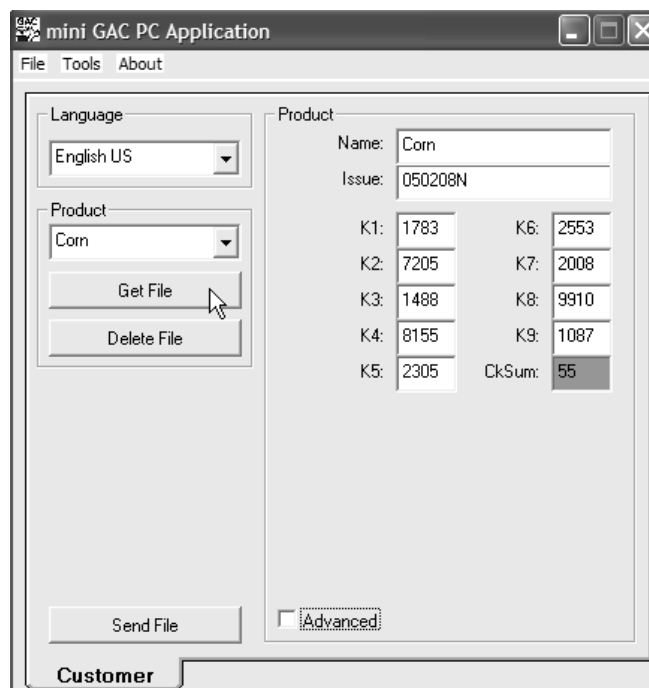
# INSTALLATION INSTRUCTIONS



8. Check the constants and correct any errors.
9. Each time a product constant is changed, the moisture and test weight bias will reset to zero.
10. Press the Send File button to download the new calibrations to the mini GAC.
11. A confirmation will display on the computer verifying a valid download.

**Figure 5**

## Product Field Entry



## ADVANCED FEATURES

### Moisture and Test Weight Bias

The mini GAC uses the same NTEP certified grain constants as the DICKEY-john GAC@2100. The mini GAC is not an NTEP approved instrument and should not be used for legal trade.

In situations where moisture or test weight differences occur with a local elevator, the Bias function allows entering of a correction factor in moisture and test weight to compensate for those differences.

This Bias adjustment can be done from the PC Application Tool or from the mini GAC.

# INSTALLATION INSTRUCTIONS



## Auto Ranging (Jump Maximum and Minimum)

If a product tests out of the moisture range of the selected product, entering a Jump Maximum and Minimum will allow the mini GAC to automatically adjust to the higher or lower grain calibration. Normally, this feature is automatically set and does not require any adjustment. Refer to the operator's manual for additional information.

*NOTE: Test Weight does not display on the mini GAC model; only the mini GAC plus.*

## To Adjust Bias and Auto Ranging from the PC Tool:

1. Select the Advanced input box to open the Advanced window, refer to (Figure 6).
2. Enter the desired Moisture and/or Test Weight Bias, if any.
3. Enter a product name in the Jump Max and Min input box, if desired.

**Figure 6**

## Advanced Features

The screenshot shows the 'mini GAC PC Application' window. The interface includes a menu bar (File, Tools, About) and a main panel with several sections:

- Language:** A dropdown menu set to 'English US'.
- Product:** A dropdown menu set to 'Corn', with 'Get File' and 'Delete File' buttons below it.
- Product Information:** Fields for 'Name: Corn' and 'Issue: 050208N'. Below these are nine calibration points (K1-K9) and a 'CkSum' field. The values are: K1: 1783, K2: 7205, K3: 1488, K4: 8155, K5: 2305, K6: 2553, K7: 2008, K8: 9910, K9: 1087, CkSum: 55.
- Bias Settings:** 'Moisture Bias: 0.5' and 'Test Weight Bias: 1.1'.
- Auto Ranging:** 'Jump Max: Corn Hi' and 'Jump Min: --None--' dropdown menus.
- Advanced:** A checked checkbox labeled 'Advanced'.
- Buttons:** 'Send File' at the bottom left and 'Customer' at the bottom center.

# INSTALLATION INSTRUCTIONS



**NOTE:** For troubleshooting assistance, contact DICKEY-john Technical Support at 1-800-637-3302. Regions outside of the United States should contact a local distributor.

## TROUBLESHOOTING

Issue	Probable Cause	Corrective Action
Abandon changes.	Discards changes without saving	"Yes" clears the changes and defaults to the previous settings. "No" keeps the changes to allow a save.
Error occurred during transfer.	1) Lost communication between mini GAC and computer. 2) mini GAC battery is dead. 3) mini GAC is turned off.	1) Check USB cable connection on the mini GAC and the computer ports and the connection status of the PC Application tool (lower left corner of window). 2) Replace the 9V battery. 3) Power on mini GAC.
Device not connected.	1) Lost communication between mini GAC and computer. 2) mini GAC is turned off.	1) Check USB cable connection on the mini GAC and the computer ports and the connection status of the PC Application tool (lower left corner of window). 2) Power on mini GAC.
Product file checksum error. Calibration constant entry invalid. File not sent.	A Calibration constant entered in the PC Application tool is incorrect.	Correct constant, save, and resend.
Filename is not empty, Overwrite?	The file being sent will overwrite an existing file on the mini GAC	Accept to overwrite the existing file. Select no to return to the PC Application Tool without sending to mini GAC.
Unsupported file selected.	Selected a wrong file type.	Select the correct file.
FM20.DLL error	Microsoft Office is not installed.	Install the FM20.dll file by executing the setup program (setuppad.exe) for ActiveX Control pad located in the install directory.

# INSTALLATION INSTRUCTIONS

---



## PC APPLICATION TOOL DOWNLOAD ERRORS

### FM20.DLL FILE MISSING ERROR

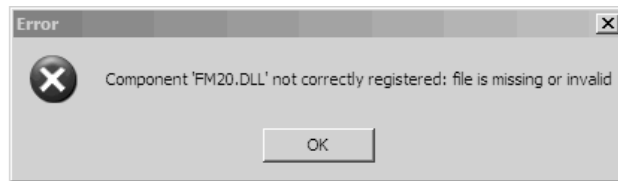
If Microsoft® Office is **not** installed on the computer, a download error will display when the mini GAC PC Application is executed indicating the FM20.dll file is missing.

To install the FM20.dll file, execute the setup program for ActiveX Control pad (setuppad.exe) located in the C:\Program Files\DICKEY-john\mini GAC PC App folder.

**Figure 7**

#### **Error Message**

---



### INSTALLATION NOTES

**IMPORTANT: ActiveX Control Pad setup can only be completed by an Administrative user in Administrator mode.**

Press any key to launch the ActiveX Control Pad setup and follow the onscreen instructions.

### **WARNING**

Aborting setup before a complete installation will not properly install the ActiveX Control Pad. The miniGAC PC Application may indicate the installation was successful, but the FM20.dll error may persist. To resolve, uninstall the program and re-install.

# INSTALLATION INSTRUCTIONS

---



**Figure 8**

**ActiveX Control Pad Setup Screen**

```
C:\WINDOWS\system32\cmd.exe
** Alert: Microsoft Office was not found. **
**
** Therefore, Microsoft's ActiveX Control Pad's setup will now be run such **
** that the necessary drivers for the miniGAC PC Application will be **
** installed. **
**
** Please follow the on-screen instructions and fully install Microsoft **
** ActiveX Control Pad. **
Press any key to continue . . . _
```

After setup completion, execute the program for ActiveX Control pad (setuppad.exe) to confirm a successful installation located in the C:\Program Files\DICKY-john\mini GAC PC App folder.