

**BIN**   
**SENSE**®

---

  
**DIRECT**

## User Guide



**INTRA**   
**GRAIN**  
technologies inc.

# BIN-SENSE® DIRECT User Guide

- 1.0 Downloading BIN-SENSE® Direct .....4
- 2.0 Logging In.....4
  - 2.1 New User .....4
  - 2.2 Returning User .....4
  - 2.3 Guest Mode.....4
- 3.0 Setting up a Site .....4
  - 3.1 Adding a New Site .....4
  - 3.2 Adding a New Bin .....5
  - 3.3 Adding a New Cable/Reading a Cable .....5
- 4.0 Bin Features .....6
  - 4.1 Bin View .....6
    - a. Grain Moisture .....6
    - b. Grain Type .....6
    - c. Compare Readings and Notes .....6
  - 4.2 Editing Bin Preferences .....7
    - a. Renaming Site or Bin.....7
    - b. Bin Type.....7
    - c. Grain Moisture .....7
    - d. Grain Type .....7
    - e. Deleting Cables .....7
  - 4.3 Connecting to the Next Cable/Adding Another Bin .....7
  - 4.4 Replacing Cable .....8
- 5.0 Menu Settings .....9
  - 5.1 Settings.....9
    - a. Sync Settings.....9
    - b. Language .....9
    - c. Units .....9
    - d. Scan Mode .....9
  - 5.2 Tools .....10
    - a. Change Account Email .....10
    - b. Reset Password .....10
    - c. Diagnostic Mode.....10
    - d. Set Cable ID.....11
    - e. Calibrate Device (Android Only) .....11
  - 5.3 Sync.....11
- 6.0 Troubleshooting .....12
- 7.0 Additional Information .....13
  - 7.1 Heat Shapes.....13
- 8.0 Product Warranty Statement.....14
- 9.0 Contact .....17

Congratulations on purchasing BIN-SENSE® DIRECT! IntraGrain Technologies Inc.'s mission is to provide quality, cost-effective, innovative solutions for monitoring grain in storage on all sizes of farms and applicable commercial facilities.

BIN-SENSE® DIRECT was created with the customer in mind and has been designed for easy usability. The system consists of sensor cables to be mounted directly inside each bin, as well as a device that allows you to manage your stored grain by connecting a Smart phone and/or tablet right to the bin! Data uploading and comparisons, inventory management, and accurate at-the-moment cable readings are just a few of the benefits offered in the BIN-SENSE® DIRECT device.

## 1.0 Downloading BIN-SENSE® DIRECT

### 1.1 iOS and Android Users

1. Open the App Store icon (iOS) or Google Play Store icon (Android)
2. In the Search text box, type BIN-SENSE® DIRECT
3. Select the BIN-SENSE® DIRECT icon and “Get” (iOS) or “Install” (Android)
4. Follow the remaining on-screen instructions

## 2.0 Logging In

2.1 *New User:* Select “New User” and follow the steps on the next page to complete new user login. The password must contain at least 6 characters.

2.2 *Returning User:* Enter your username and password and select “Log In” to continue.

2.3 *Guest Mode:* This will allow you to view the temperature/moisture of your grain, without making any personalized changes or saving of historical data.

The image shows two screenshots of the BIN-SENSE® DIRECT app interface. The left screenshot displays the main login screen with the BIN-SENSE® DIRECT logo and three buttons: Log In, New User, and Guest Mode. The right screenshot displays the registration form with fields for Username, Password, Password (again), First Name, Last Name, Country, Province/State, City, Address, Postal/Zip Code, Retailer, Phone (area, Phone, ext.), and Email, with OK and Cancel buttons at the bottom.

## 3.0 Setting up a Site

### 3.1 Adding a New Site

1. Select “Add Site”
2. Enter the name of the site
3. Select “OK”

The image shows a screenshot of the BIN-SENSE® DIRECT app interface. The screen is mostly blank with a green header bar containing 'BIN-SENSE® Direct' and 'Menu'. A small 'Add Site' button is visible in the bottom left corner.

### 3.2 Adding a New Bin

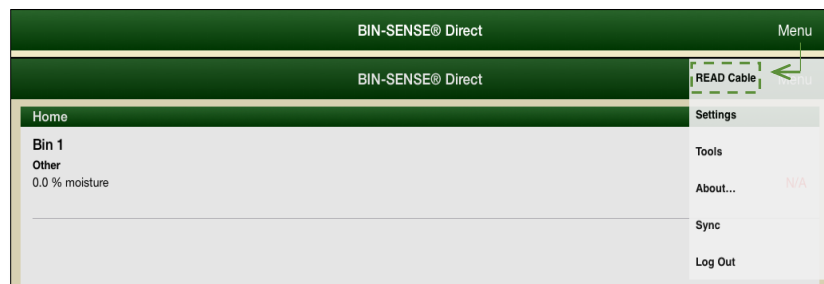
1. Select “Add Bin”
2. Enter the name of the bin
3. Select “OK”



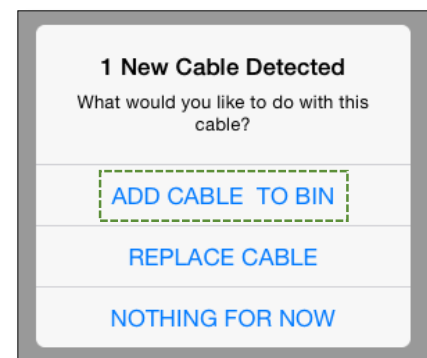
### 3.3 Adding a New Cable/Reading a Cable

Connect the BIN-SENSE® DIRECT device into the headphone jack of your Smart device. Plug the female end of the BIN-SENSE® DIRECT device into the male end of the cable coming off the bin. Note: A secure connection is not established until the male and female ends have “clicked” together.

1. Select “Read Cable” off the “Menu” tab.
2. Select “Add Cable to Bin”
3. Select the correct site and bin name
4. Select the cable to be added to that bin.



**Note: Users with multi-cable bins will have to go through steps 4 - 6 for each cable.**



## 4.0 Bin Features

### 4.1 Bin View

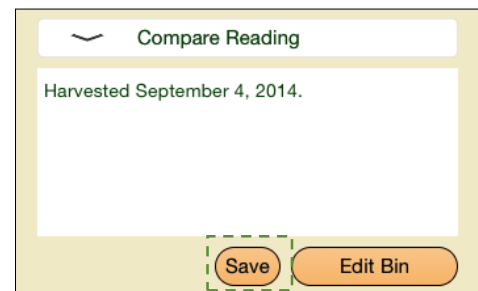
- a. Grain Moisture: Input highest grain moisture recorded when filling the bin. Moisture values must be entered manually if there are not moisture cables present. Be sure to save all changes.



- b. Grain Type: Select the appropriate grain type. BIN-SENSE® utilizes the safe storage guidelines developed by the Canadian Grain Commission. Please note that not all grain types listed are supported by the CGC. Refer to the CGC Safe Storage Guidelines (<http://www.grainscanada.gc.ca/storage-entrepose/ssg-de-eng.htm>) for more information. Ensure to save all changes.

- c. Compare Readings and Notes: Compare the current reading with historical data stored in your Smart device, as well as add a note.

1. Select “Compare Reading”
2. Pick the date and time you want to compare to the current reading and select “Done”
3. Add text by typing a note and selecting “Save”

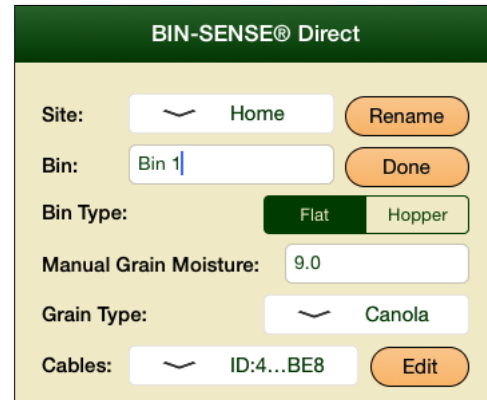


## 4.2 Editing Bin Preferences

- Select “Edit Bin”



- a. Renaming Site or Bin
  1. Pick the site or bin name to change
  2. Select “Rename”
  3. Retype the new name of the site or bin
  4. Select “Done”
  5. Save all changes



The screenshot shows the 'BIN-SENSE® Direct' interface with the following fields and buttons:

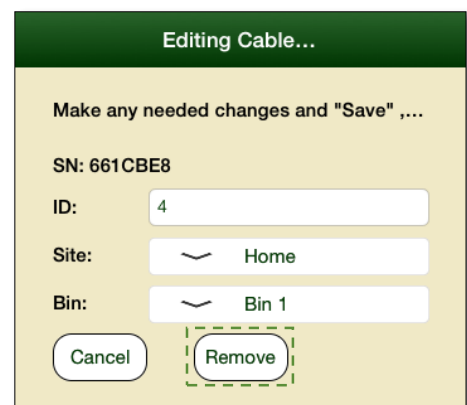
- Site: Home (dropdown), Rename (button)
- Bin: Bin 1 (text input), Done (button)
- Bin Type: Flat (selected), Hopper (button)
- Manual Grain Moisture: 9.0 (text input)
- Grain Type: Canola (dropdown)
- Cables: ID:4...BE8 (dropdown), Edit (button)

- b. Bin Type
  1. Select the appropriate type of bin
  2. Save all changes

- c. Grain Moisture
  1. Input highest grain moisture recorded when filling the bin. Functioning moisture cables will autofill in this space once the grain type is selected.
  2. Save all changes

- d. Grain Type
  1. Select the appropriate grain type. BIN-SENSE® utilizes the safe storage guidelines developed by the Canadian Grain Commission. Please note that not all grain types listed are supported by the CGC.
  2. Save all changes

- e. Deleting Cables
  1. Pick which cable you would like to remove from the bin. (If reading multiple cables in bin, find cable serial numbers in Diagnostic Mode)
  2. Select “Edit”
  3. Ensure that the correct site and bin are selected
  4. Select “Remove”



The screenshot shows the 'Editing Cable...' dialog box with the following fields and buttons:

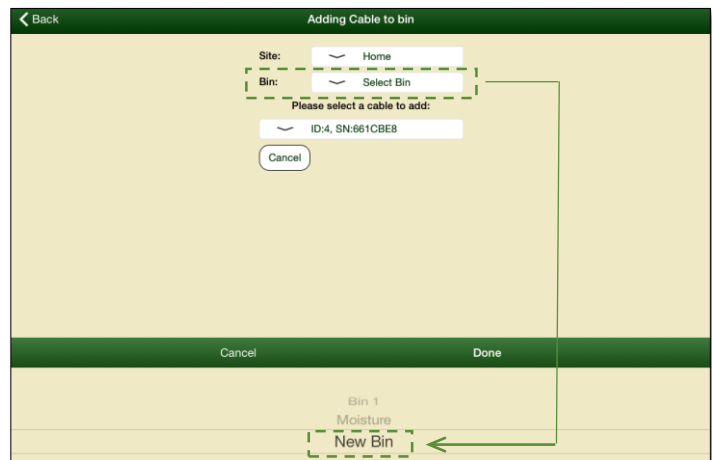
- SN: 661CBE8
- ID: 4 (text input)
- Site: Home (dropdown)
- Bin: Bin 1 (dropdown)
- Buttons: Cancel, Remove (highlighted with a dashed green border)

#### 4.3 Connecting to the Next Cable/Adding Another Bin

1. Unplug BIN-SENSE® DIRECT device from drop-down bin connection (keep headphone jack attached to Smart device)
2. Connect DIRECT device to new bin drop-down connection
3. If new bin/cables, follow see Section 3.2 to 3.3

OR

1. To create a new bin, select the bin dropdown and choose “New Bin” and “Done”
2. Enter the name of the new bin and select “OK”
3. Re-select the new bin, and the new cable to be added to the bin
4. Connect cable to DIRECT device
5. Select “Menu” and “Read Cables”
6. On the next screen, select site name under the dropdown

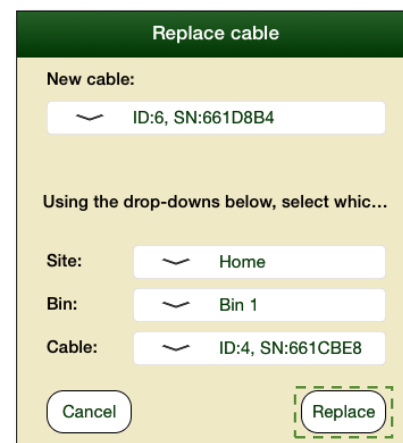


**Steps 1 – 5 can be used for creating a new yard, using the “Site” dropdown.**

7. View the new bin and make changes (see Section 4.2) as necessary

#### 4.4 Replacing Cables

1. Connect DIRECT device into new cables
2. Select “Menu” and “Read Cable”
3. Select “Replace Cable”
4. Ensure that you have the new cable selected for replacement, site name, bin name and the old cable that will be replaced
5. Select “Replace”

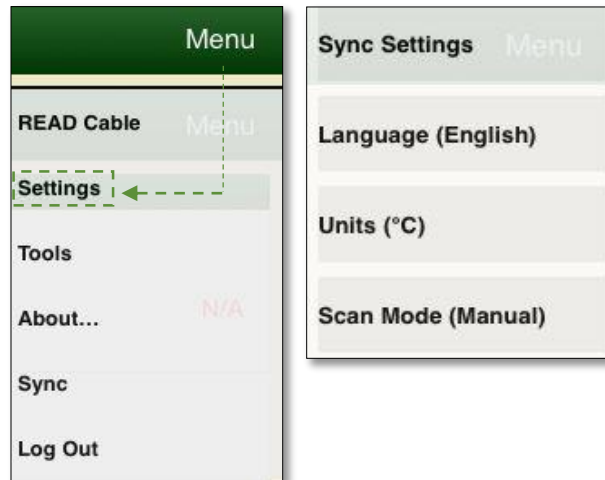




## 5.0 Menu and Settings

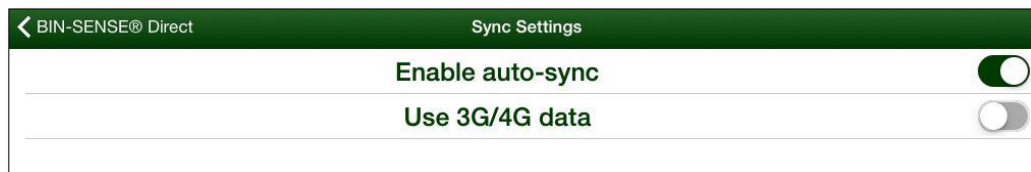
### 5.1 Settings

- Select “Settings”, under “Menu”



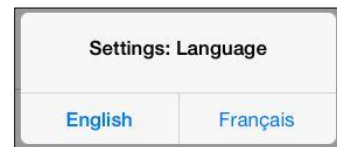
#### a. Sync Settings

1. *Enable auto-sync*: Will automatically upload data from your Smart device to a personal online account.
2. *Use 3G/4G data*: Allow your Smart phone to upload data to your personal online account via 3G/4G data.



#### b. Language

1. Select language preference (English or French)



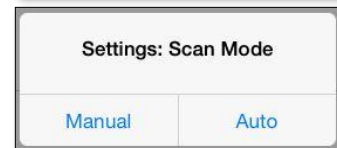
#### c. Units

1. Select unit preferences (Celsius or Fahrenheit)



#### d. Scan Mode

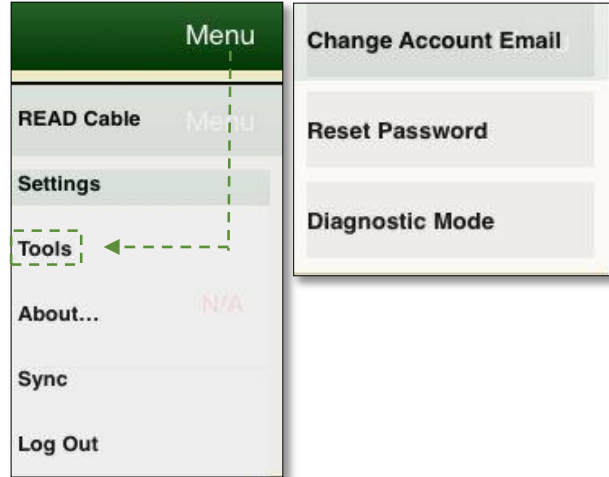
1. *Manual*: Prompt the device to scan the cables every time you connect
2. *Auto*: The device will automatically read the cables as soon as there is a connection.



**Note: Auto Mode will use more battery life as the DIRECT device will be powered as long as it connected to the Smart device.**

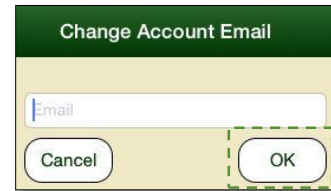
## 5.2 Tools

- i. Select “Tools”, under “Menu”



- a. Change Account Email

1. Select “Change Account Email”
2. Enter your new email address, and select “OK”



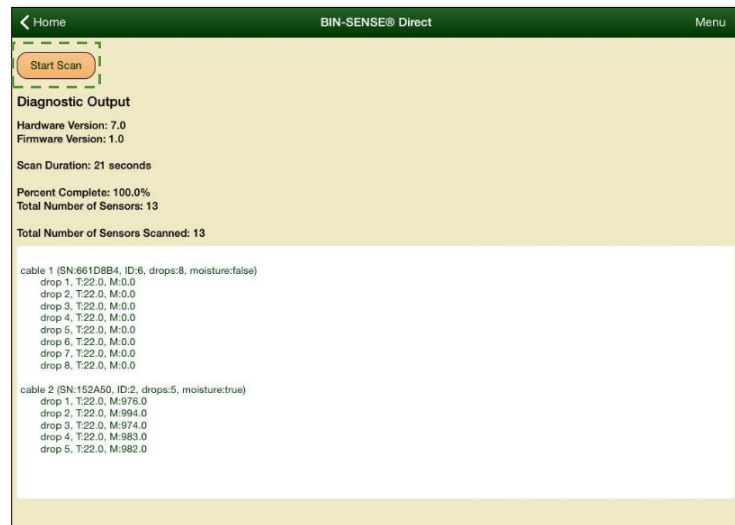
- b. Reset Password

1. Select “Reset Password”
2. Retype your old password
3. Enter a new password, containing at least 6 characters.
4. Re-enter the new password, and select “OK”



- c. Diagnostic Mode

1. Differentiate between cable and serial numbers
2. Select “Start Scan”

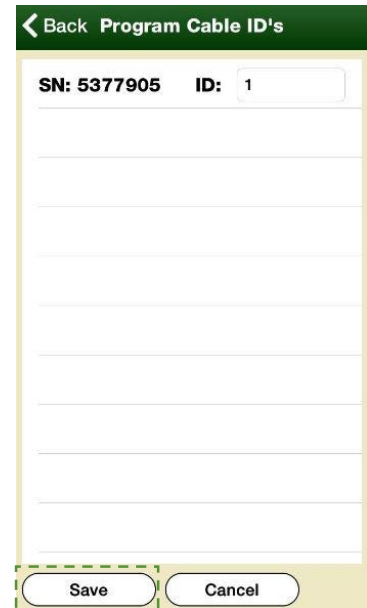


d. Set Cable ID

This function allows you to set cable ID without allocating the cable to bin or site.

1. Select “Menu” → “Tools” → “Diagnostic Mode” → “Program Cable ID’s”
2. Enter the appropriate ID number and hit “Save”

**Note: When programing new cables, connect to each one separately to ID them. If multiple cables already have an existing ID in one bin, you can plug into the drop down and change the specific ID of a cable.**

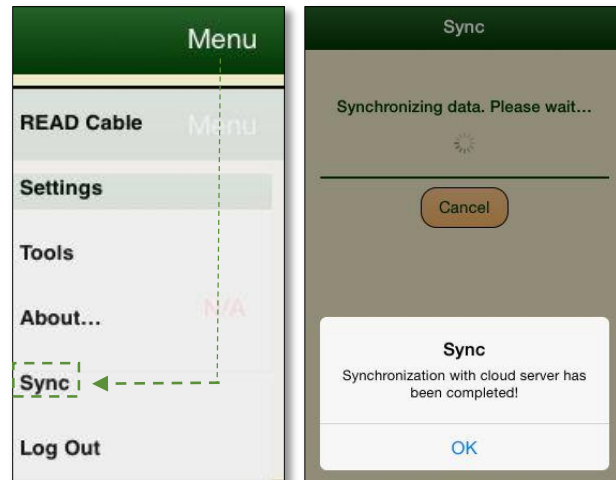


e. Calibrate Device (Android Only)<sup>1</sup>

Calibrate Android devices with BIN-SENSE® DIRECT to receive a more accurate reading of sensors.

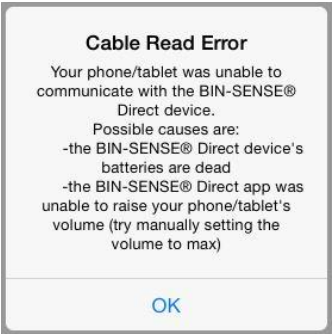
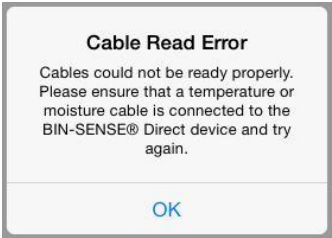
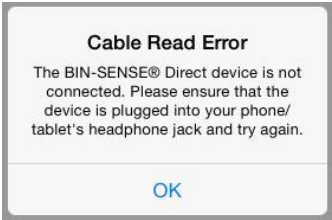
5.3 Sync

1. Sync bin readings to your personal BIN-SENSE® DIRECT web account for 24/7 access to historical records
2. Select “Sync”, under “Settings”



<sup>1</sup> Apple devices do not require calibration with BIN-SENSE® DIRECT, as communication is more consistent with iOS software.  
700007

## 6.0 Troubleshooting

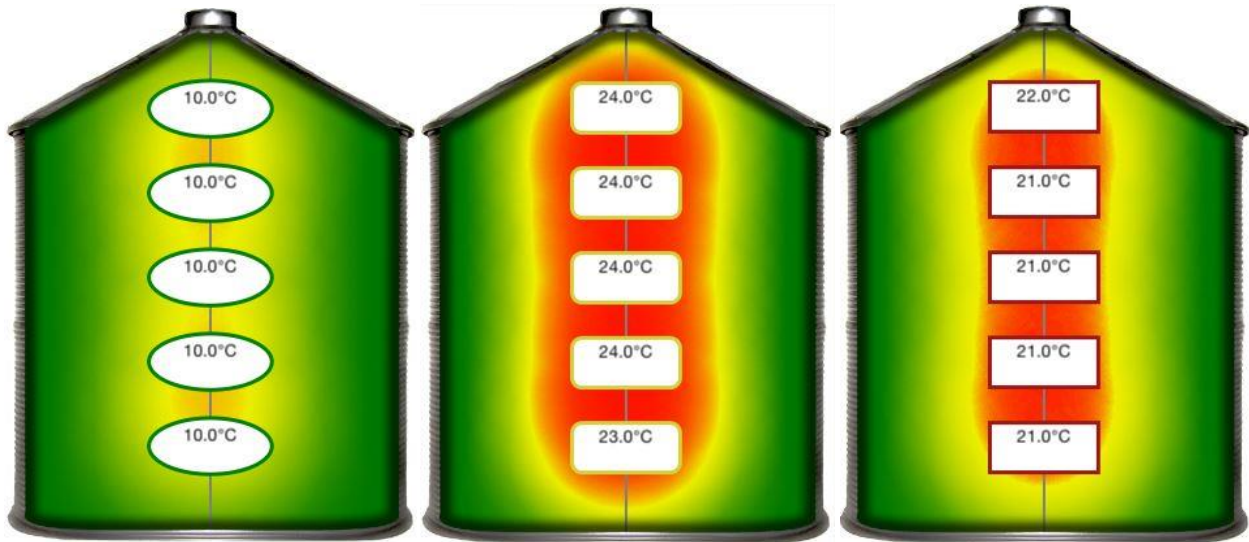
	Type of Error	Resolution
	Communication error	<ul style="list-style-type: none"> <li>Change the batteries in BIN-SENSE® DIRECT device</li> <li>Manually raise volume</li> <li>Check connection points between cable(s), Direct and Smart devices</li> </ul>
	Connection error	<ul style="list-style-type: none"> <li>Ensure that the connection between the cable(s) and the DIRECT device is secure (they should “click” into place)</li> </ul>
	Headphone jack connection error	<ul style="list-style-type: none"> <li>Ensure the connection between the DIRECT device and your Smart device is secure.</li> <li>Manually raise volume on device</li> </ul>

### Other Troubleshooting Methods

- Exit out of DIRECT app and reopen
- Restart Smart device and reopen app
- Disconnect DIRECT device from cable(s) and Smart device, then reconnect
- Run Diagnostics
- Calibrate device (Android only)
- Change batteries in DIRECT device
- Log out and log back in
- Contact your local Retailer or IntraGrain Technologies Inc. for support

## 7.0 Addition Information

7.1 *Heat Shapes*: As the relationship between temperature and humidity increases for each grain type, the corners become more square



## 8.0 Product Warranty Statement

- 8.1 **Definitions.** For the purposes of this Instruction Manual, the following terms shall have the following meanings ascribed to them:
- a) **Equipment:** means any hardware, device or equipment provided by IntraGrain in association with the BIN-SENSE® System.
  - b) **IntraGrain Data:** means any proprietary information, documents, records, materials or data provided to or accessible to the User through the use of the IntraGrain Service.
  - c) **IntraGrain Service:** means the BIN-SENSE® equipment and service and the IntraGrain website and user interfaces, including all features and functionalities and all content and software associated therewith.
  - d) **User:** means the purchaser or any user of the IntraGrain Service.
- 8.2 **Limited Warranty.** IntraGrain warrants, for a period of twelve months from the date of purchase, the Equipment shall be free of defects in materials and workmanship under normal use. During the warranty period, IntraGrain shall, at its option, repair or replace any defective components or products upon return of the product at the User's expense to IntraGrain, at no charge for labour or materials. Any replacement and/or repaired parts are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer. The User must promptly notify IntraGrain in writing that there is defect in material or workmanship, such written notice to be received prior to the expiration of the warranty period. There is no warranty on any software products provided to the User on a license basis in association with the BIN-SENSE® System. The User is solely responsible for the proper selection, installation, operation and maintenance of any Equipment purchased from IntraGrain.
- 8.3 **Limitations of Warranty.** This warranty only applies to the functioning of the Equipment, and specifically only to defects in parts and workmanship relating to normal use. It does not cover: (a) damage incurred in shipping or handling; (b) damage caused by disaster such as fire, flood, wind, earthquake or lightning; (c) damage due to causes beyond the control of IntraGrain such as excessive voltage, mechanical shock or water damage; (d) damage caused by unauthorized attachment, alterations, modifications or foreign objects by the User or any third party; (e) defects caused by failure to properly install or to provide a suitable installation environment for the Equipment; (f) damage caused by use or misuse of the Equipment for purposes other than those for which it was designed; (g) damage from improper maintenance; or (h) damage arising out of any other abuse, mishandling or improper application of the Equipment.
- 8.4 **GENERAL WARRANTY DISCLAIMER.** OTHER THAN AS EXPRESSLY SET FORTH IN THIS AGREEMENT, INTRAGRAIN MAKES NO REPRESENTATIONS, WARRANTIES OR COVENANTS TO ANY PERSON OR ENTITY WITH RESPECT TO THE EQUIPMENT OR THE INTRAGRAIN SERVICE. EXCEPT AS SET FORTH ABOVE, THE INTRAGRAIN SERVICE IS PROVIDED ON AN “AS-IS” AND “AS AVAILABLE” BASIS. INTRAGRAIN DOES NOT GIVE ANY WARRANTIES, GUARANTEES, REPRESENTATIONS OR CONDITIONS, WHETHER EXPRESS,

IMPLIED, STATUTORY OR OTHERWISE (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY, FUNCTIONALITY OF THE EQUIPMENT OR THE INTRAGRAIN SERVICE, FITNESS FOR A PARTICULAR PURPOSE (INCLUDING THE PREVENTION OF HEATED, SPOILED OR OTHERWISE UNMARKETABLE GRAIN), ACCURACY OF DATA, COMPLIANCE WITH ANY DESCRIPTION, OR NON-INFRINGEMENT OF THIRD PARTY RIGHTS) WITH RESPECT TO ANY EQUIPMENT AND THE INTRAGRAIN SERVICE AND ALL SUCH WARRANTIES ARE HEREBY DISCLAIMED TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW.

- 8.5 **NO WARRANTY OF SERVICE AVAILABILITY.** INTRAGRAIN DOES NOT GUARANTEE THE ACCURACY OR TIMELINESS OF INFORMATION AND/OR DATA (INCLUDING, WITHOUT LIMITATION, INTRAGRAIN DATA) AVAILABLE OR ACCESSIBLE THROUGH USE OF THE EQUIPMENT AND THE INTRAGRAIN SERVICE NOR THAT THE INTRAGRAIN SERVICE MAY BE PROVIDED WITHOUT INTERRUPTION OR ERROR FREE. INTRAGRAIN DOES NOT WARRANT THAT IT WILL BE ABLE TO CORRECT ALL REPORTED DEFECTS IN THE INTRAGRAIN SERVICE. INTRAGRAIN DOES NOT GUARANTEE THAT THE INTRAGRAIN SERVICE AND ACCESS TO YOUR ACCOUNT WILL ALWAYS FUNCTION WITHOUT DISRUPTIONS OR DELAY. SINCE THE INTRAGRAIN SERVICE MAY OR WILL BE FACILITATED AND/OR TRANSMITTED THROUGH PUBLIC INTERNET LINES, COMMUNICATIONS NETWORKS AND PUBLIC AND/OR PRIVATE SWITCHED TELEPHONY NETWORK(S) (AS THE CASE MAY BE), YOU UNDERSTAND THAT THERE MAY BE SERVICE DISRUPTIONS OR OUTAGES.
- 8.6 **LIABILITY EXCLUSION.** TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, INTRAGRAIN SHALL NOT BE LIABLE FOR ANY DIRECT (EXCEPT AS PROVIDED IN SECTION 1.7 BELOW) INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES WHATSOEVER OR FOR ANY LOSS OF PROFIT, LOSS OF BUSINESS, LOSS OF REVENUE, LOSS OF REPUTATION OR GOODWILL, LOSS OF CONFIDENTIAL OR OTHER INFORMATION, BUSINESS INTERRUPTION OR FOR ANY INJURY OR LOSS OF LIFE ARISING OUT OF OR IN ANY WAY RELATED TO THE USE OF OR INABILITY TO USE, THE EQUIPMENT OR THE INTRAGRAIN SERVICE. THIS EXCLUSION INCLUDES ANY LIABILITY THAT MAY ARISE OUT OF THIRD PARTY CLAIMS. CUSTOMER SHALL NOT APPLY FOR, SEEK OR OTHERWISE REQUEST FROM ANY COURT, RELIEF, REMEDY, COMPENSATION OR REDRESS IN THE FORM OF EXEMPLARY OR PUNITIVE DAMAGES.
- 8.7 **MAXIMUM LIABILITY.** THE AGGREGATE LIABILITY OF INTRAGRAIN FOR ALL CLAIMS OF ANY KIND WHETHER BASED IN CONTRACT, INDEMNITY, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, FOR ALL LOSSES OR DAMAGES ARISING OUT OF, OR

RESULTING IN CONNECTION WITH THE USE OF THE EQUIPMENT, THE PERFORMANCE OR LACK THEREOF, OR FROM ANY PRODUCTS OR SERVICES OFFERED BY INTRAGRAIN IN CONNECTION WITH THE EQUIPMENT, WILL IN NO CASE EXCEED THE AMOUNT, IF ANY, PAID BY THE CUSTOMER TO PURCHASE THE EQUIPMENT AND TO ACCESS THE INTRAGRAIN SERVICE IN THE YEAR IN WHICH THE CLAIM AROSE. INTRAGRAIN IS NOT AND SHALL NOT BE LIABLE FOR ANY LOSS OF BUSINESS, USE OR DATA, INTERRUPTION OF BUSINESS, LOST PROFITS OR GOODWILL, OR OTHER KIND OF INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH LOSS, AND NOTWITHSTANDING ANY FAILURE OF ESSENTIAL PURPOSE OR OF ANY LIMITED REMEDY. THIS EXCLUSION INCLUDES ANY LIABILITY THAT MAY ARISE OUT OF THIRD PARTY CLAIMS AGAINST THE CUSTOMER OR INTRAGRAIN



## **9.0 Contact Us**

### **IntraGrain Technologies Inc.**

©2015 IntraGrain Technologies Inc. All rights reserved.

#### **Website:**

[www.intragrain.com](http://www.intragrain.com)

#### **E-mail:**

[info@intragrain.com](mailto:info@intragrain.com)

#### **Phone:**

306-570-7979

#### **Head Office:**

1355 Cornwall Street  
Regina, SK S4R 2H6  
Canada

