



This operations manual is intended for assembly, operating, maintenance, inspection, safety warnings and cleaning procedures.



For technical support please contact us at:

support@c-lockinc.com

605-791-5657

For additional information, visit our website: <https://www.c-lockinc.com>



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1. Getting Started

1.1. Specifications

| | |
|-------------------------------|---|
| Operating Voltage: | 11 - 15VDC or 120 - 240VAC 50/60Hz (Power supply included) |
| Operating Temperature: | -20 to 50 °C (-4 to 120 °F) |
| Power Consumption: | ~10 watts idle, up to 240 watts when closing gate |
| Dimensions: | Customizable to fit any animal or feed requirement Bin capacity: 0.5 ~ 1.2 cubic meters Larger bin sizes can be made to user specifications |
| Data Communications: | Standard: WiFi (802.11b/n/g) Optional: 4G/LTE Cellular Web-based online interface Data processing: cloud-based server |
| Sensors: | RFID Tag Reader - (ISO 11784/5 134KHz HDX/FDX) Quad Load Cells - Bin weight Load Cell Resolution: 10 grams |
| Control: | Search "Control Feed" in your App Store |

| SmartFeed Bin Type | Overall Dimensions inches (cm) | Bin Dimensions inches (cm) | Bin Volume feet ³ (m ³) |
|--------------------|-----------------------------------|---------------------------------|--|
| Small | 42 x 40 x 72 (112 x 183 x 102) | 38 x 26 x 30 (96 x 66 x 76) | 17.1 (0.48) |
| Beef | 50 x 40 x 72 (132 x 183 x 102) | 41 x 28 x 34 (104 x 71 x 86) | 22.6 (0.64) |
| Dairy | 60 x 40 x 72 (158 x 183 x 102) | 50 x 28 x 34 (127 x 71 x 86) | 27.5 (0.78) |

1.2. SmartFeed Pro Layout

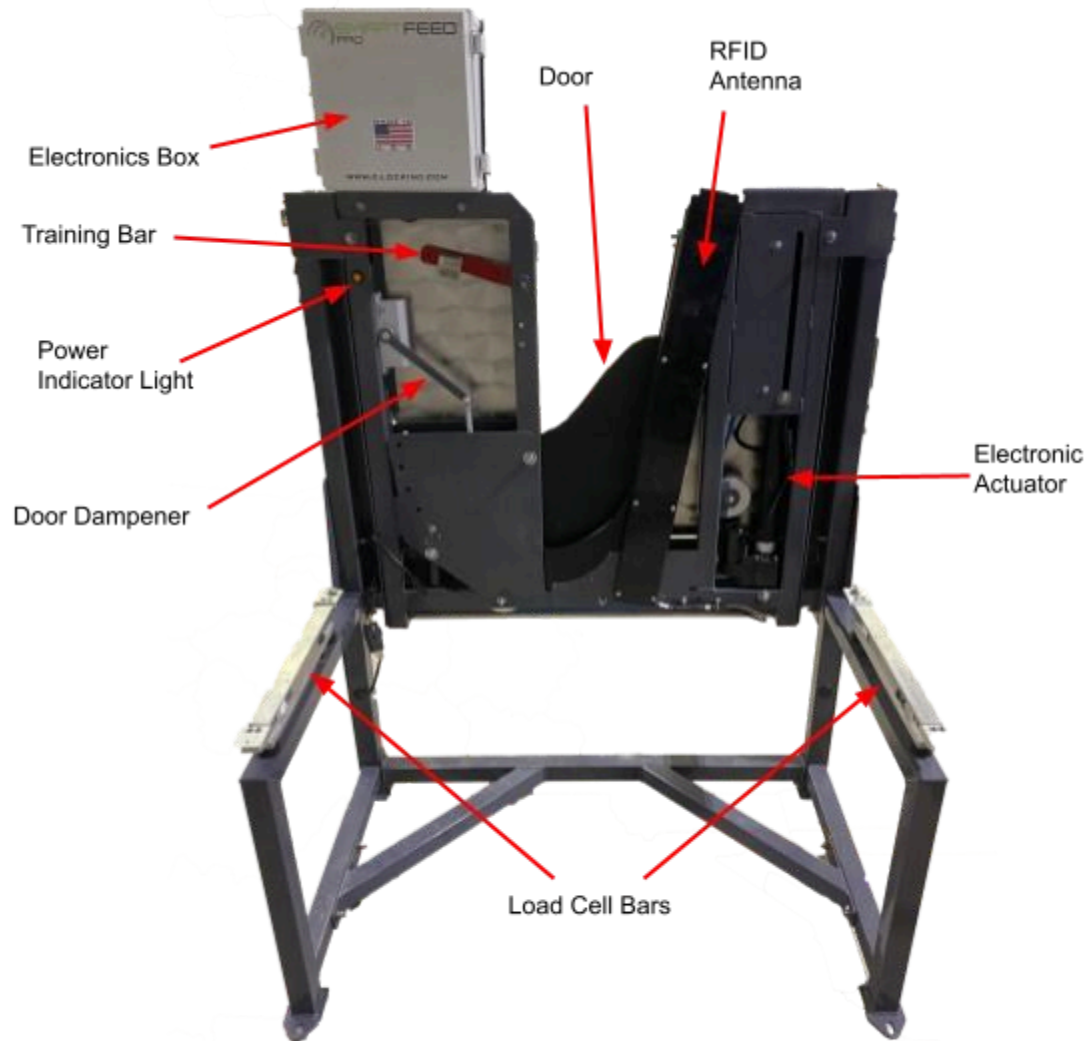


Figure 1a) The back of the SmartFeed Pro (2019 - 2022 Model) with the Bin Removed

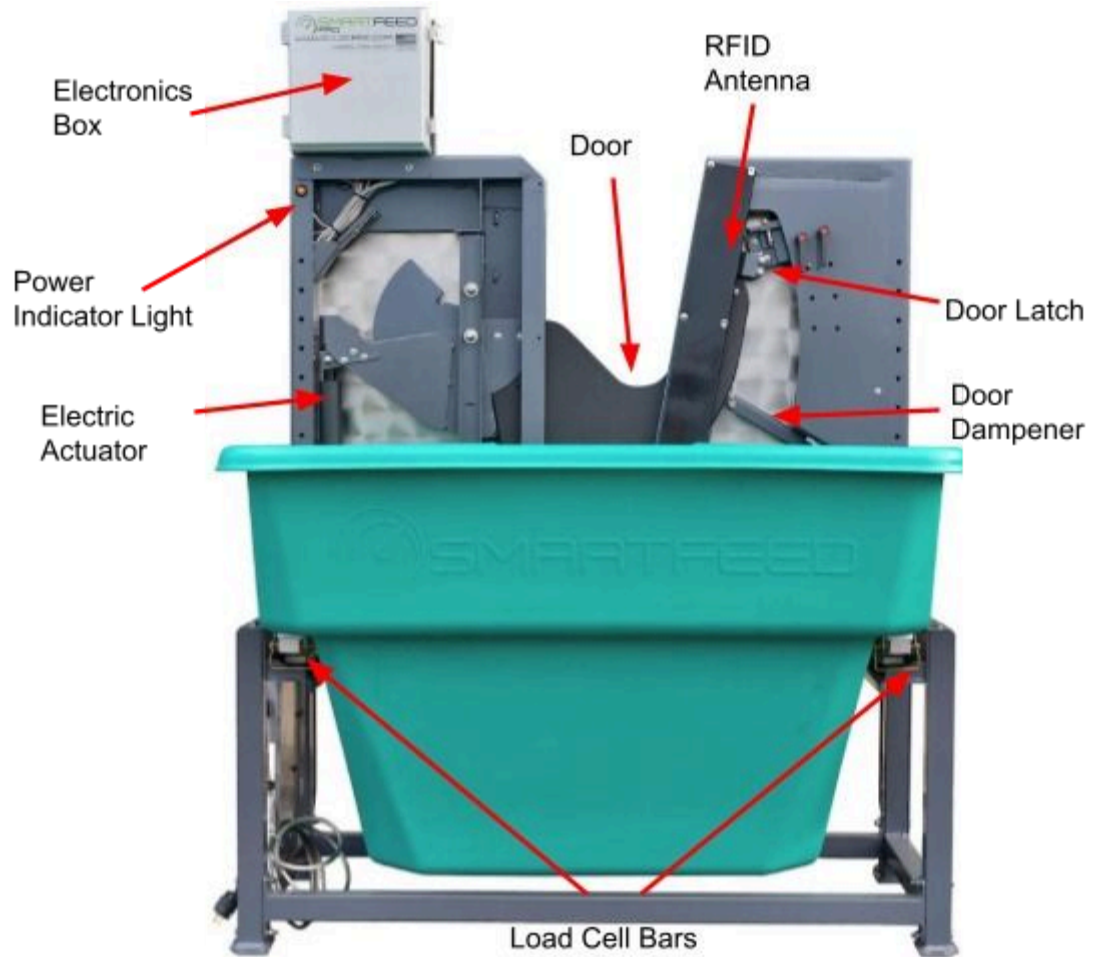


Figure 1b) The back of the SmartFeed Pro (2023 Model) with the Bin in Place



1.3. Installation

Choosing a Location

i Note: SmartFeed is very sensitive to weight fluctuations. To get as accurate of a weight reading as possible, please follow these rules:

1. Choose a location where no grass or plants will grow under the bin
2. Ensure the bin is completely suspended by its load cell bars.
3. In windy environments, use solid obstructions, such as plywood, sheet metal, or other types of shelter to block as much wind as possible.
4. Ensure nothing is leaning against the bin. This includes wires, plants, farm tools, or other equipment.
5. Check regularly to ensure that feed has not fallen below the SmartFeed bin and is piling up.

Anchoring the Frame to the Ground

i **Caution! SmartFeed is front-heavy and can tip over easily if not anchored appropriately. Please use caution when moving or installing the system to prevent from injury or damage. ALWAYS ANCHOR ALL FOUR CORNERS OF SMARTFEED FIRMLY TO THE GROUND.**

1. Select a location that will not allow the animals to access the feed bin from behind. Alternatively, place a fence around the SmartFeed to prevent access from behind.
2. Make sure the unit is on a level surface by placing it on flat pieces of metal, wood, or concrete.
3. Use rebar or ground anchors to secure the frame to the ground. See Figure 2 for reference.



Figure 2) SmartFeed Orientation and Mounting Reference

4. Your feeder may have been shipped with protection spacers. Once the frame is anchored, remove the load cell protection spacers from each load cell bar.
These spacers can be removed by lifting the bin up on each side (one at a time), then removing the spacer. Please save the spacers for future transportation.

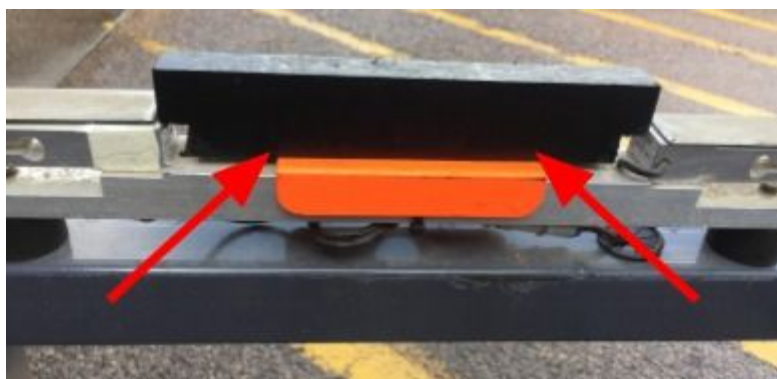


Figure 3) Load Cell Protection Spacers

1.4. Powering SmartFeed On and Off

SmartFeed only requires a 12 volt DC power source to operate. This low voltage is relatively harmless. However, if an external AC to DC power converter is used to power the SmartFeed, the AC power going into the converter can be hazardous. Please protect the AC power cord and exercise caution when using AC power.

Before you power on SmartFeed:

1. Connect the provided power cable to the SmartFeed power plug. The plug is located directly below the gate latch mechanism. See Figure 4 for reference.



Figure 4) SmartFeed Power Receptacle

2. Ensure all power cables are protected from animals and other possible sources of damage, such as vehicle or foot traffic.
3. Ensure the power cord is not a tripping hazard.
4. Contact C-Lock if the power cord is worn or wires are exposed.

To power on SmartFeed:

1. Depending on your SmartFeed setup, you may have a different method of applying power to the unit, either a power switch or a power connector. Ensure the power source is connected to your SmartFeed unit, and if applicable, turn the power switch to ON.
2. The power indicator light on SmartFeed will illuminate, to signify that it has power.
3. Once power is applied, please allow ~1 minute for the system to initialize.
4. Use the mobile Control Feed application to scan for your system to ensure it is fully powered on and ready.

To power off SmartFeed:

1. Locate the power receptacle. (See Figure 8.)
2. Pull the white tab out.
3. Push down on the black latch and wiggle the connector back and forth while pulling it outward. (See Figure 5)

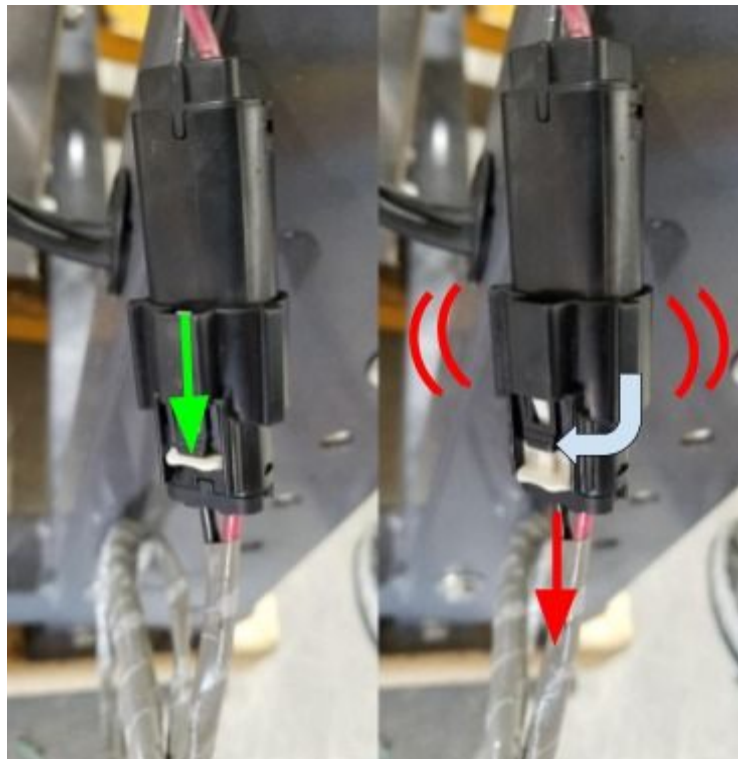


Figure 5) Steps for Disconnecting the Power Cable

1.5. Installing the Control Feed Mobile Application

Controlling and monitoring the SmartFeed system is made possible using the Control Feed mobile application. To install Control Feed on your mobile device, search for “Control Feed” by C-Lock Inc. in the Google Play Store or Apple App Store, or scan the QR code below.



Control Feed
Utilities



Apple App Store



Google Play Store

<https://apps.apple.com/us/app/control-feed/id1524038899>

<https://play.google.com/store/apps/details?id=com.controlfeed>

For instructions on using Control Feed, see **Section 3**.

2. Setup

2.1. Adjusting the Closed Door Height

The closed-gate height can be adjusted to provide access to smaller or larger animals. Perform the following to adjust the door height:

Adjusting the Closed Door Height (2019 - 2022 Model):

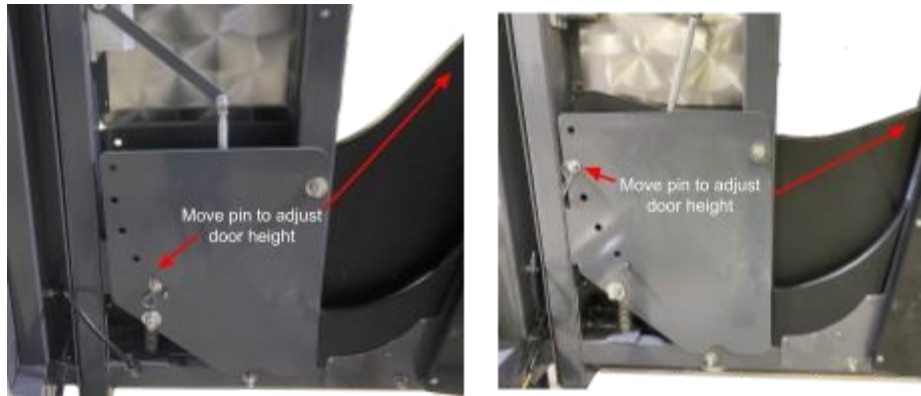


Figure 6a) Gate Adjustment for Smaller or Larger Animals

1. Tap the “Unlock Door” button on the Control Feed app.
2. Open the gate far enough to be held open by the training latch.
3. Remove the gate-height adjustment pin and re-insert into the desired hole.
4. For smaller animals, place the pin in the highest hole. For larger animals, place the pin in the lowest hole.
5. Remove the training latch and allow the gate to close.
6. Ensure that the gate successfully latches onto the pin, the Control Feed app status should show “Door State: Closed”.

Adjusting the Closed Door Height (2023 Model):



Figure 6b) Gate Adjustment for Smaller or Larger Animals

1. Tap the “Unlock Door” button on the Control Feed app.
2. Push the gate open and hold it in place.
3. Remove the two gate-height adjustment handles.
4. Move the door latch to the desired position, for smaller animals, place the latch in the lowest position. For larger animals, place it in the highest position.
5. Install the gate-height adjustment handles.
6. Allow the gate to close.
7. Ensure that the gate successfully latches onto the pin, the Control Feed app status should show “Door State: Closed”.

2.2. Manually Opening the Door

⚠ Caution! Unlatching the door manually using the latch release switch will cause SmartFeed to automatically close the door with extreme force, which could result in injury. The Control Feed App “Unlock Door” button **must be used to unlock the door if SmartFeed is powered on. (See Section 4 for instructions on using the Mobile app.) The latch release switch should only be used if SmartFeed is powered off.**

To open the door manually (2019 - 2022 Model):

1. Locate the latch release switch. This switch can be found hidden between the door and the back wall plate under the training bar.
2. Place your hand between the gate and the front of the feeder. You will feel a small lever sticking out the top of the latch housing. Push the lever towards the outside of the machine.

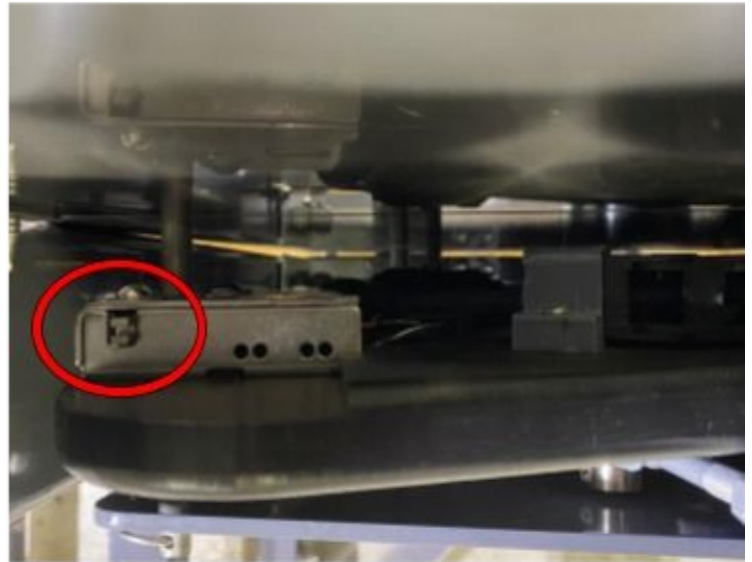


Figure 7a) Location of the Manual Door Unlock Switch (2019 - 2022 Model)

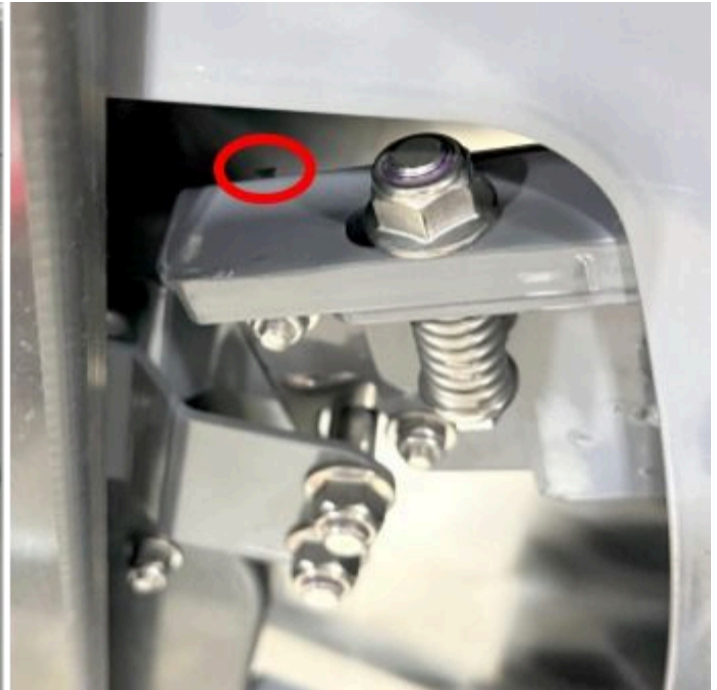


Figure 7b) Location of the Manual Door Unlock Switch (2023 Model)

2.3. Engaging the Training Latch

The training latch is meant to hold the door open so that animals can learn there is feed in the bin. When the training latch is engaged, animals can eat as much and as often as they want. The orange bar located beneath the electronics box allows you to place SmartFeed in training mode.

Note: If you engage the training latch on the SmartFeed machine, you must also switch SmartFeed into training mode online. See Section 5.2 for instructions.

To engage the training latch (2019 - 2022 Model):

1. Tap the “Unlock Door” in Control Feed. If SmartFeed is powered off, you will have to manually unlock the latch (see **Section 2.2**)
2. Push the gate as far open as it will go.
3. Remove the orange training latch from its holder and lower it down into position so that the “fork” of the latch closes onto the orange pin.
4. Push the door latch into the training bar pin until it locks shut.

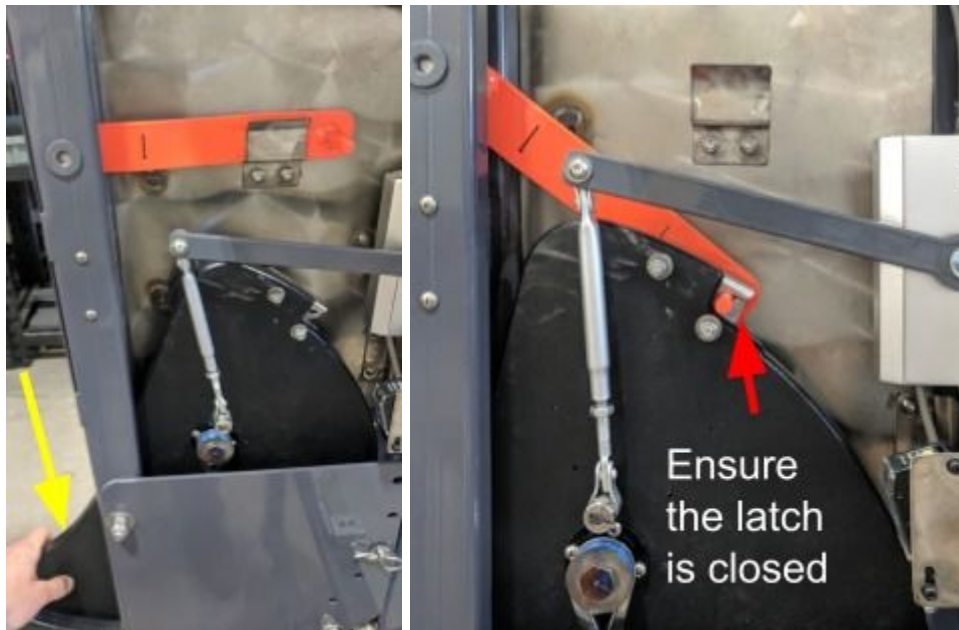


Figure 8a) Engaging the Training Latch (2019 - 2022 Model)

To engage the training latch (2023 Model):

1. Ensure the system is in "Training Mode" in Control Feed.
2. Tap the "Unlock Door" in Control Feed. If SmartFeed is powered off, you will have to manually unlock the latch (see **Section 2.2**)
3. Push the gate as far open as it will go.
4. Remove the training pin from its holder.
5. Insert the pin into the hole in the vertical bar.

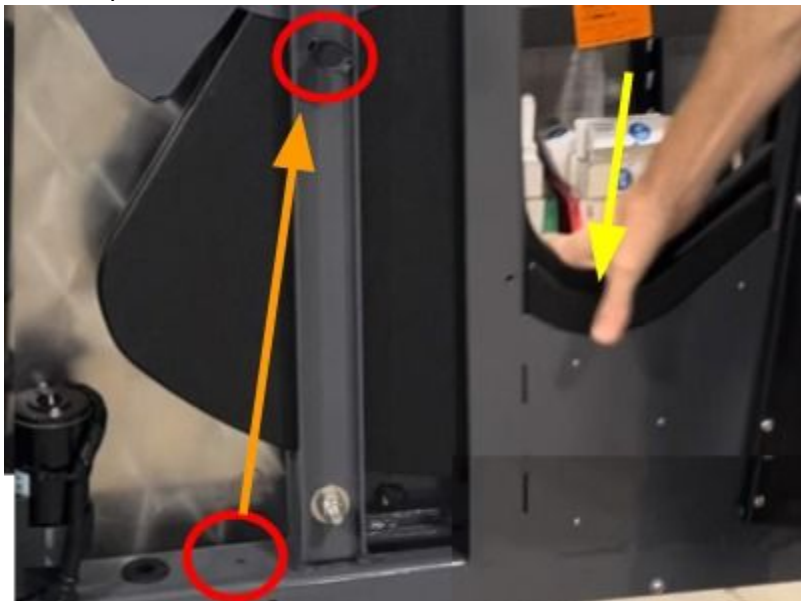


Figure 8b) Engaging Training Mode (2023 Model)

Note: If you disengage the training latch on the SmartFeed machine, you must also switch SmartFeed into normal operating mode online.

To return SmartFeed Pro to regular operating mode (2019 - 2022 Model):

1. Tap "Unlock Door" in Control Feed. If SmartFeed is powered off, you will have to manually unlock the latch (see **Section 2.2**)
2. Push the gate as far open as it will go.
3. Return the orange training latch to its holder.
4. Allow the gate to close until the latch engages the gate-height adjustment pin.

To return SmartFeed Pro to regular operating mode (2023 Model):

1. Tap “Unlock Door” in Control Feed. If SmartFeed is powered off, you will have to manually unlock the latch (see **Section 2.2**)
2. Remove the training pin from the vertical bar hole.
3. Return the training pin to its storage location on the horizon bar.
4. Allow the gate to close until the latch engages.

2.4. Adjusting the SmartFeed Height

2.4.1 - SmartFeed can be adjusted to accommodate a wide range of animal sizes. Adjusting the height requires at least two people. To adjust the full height of the front follow these steps:



Figure 9) Loosen four bolts to raise/lower the front of SmartFeed

⚠ Caution: At least two people are required to adjust the height of the gate system. The only equipment that is holding the gate at its height are the four bolts shown in Figure 9. Once these bolts are removed, the whole gate **will** fall (and is heavy), so be sure to have support and/or multiple people to hold it in place.

1. Remove the bolts and washers from these four spots.
2. Raise or lower the bin supports to the desired height and place the four bolts back in place.
3. Adjust the door height to accommodate the new front height. See **Section 2.1**

2.4.2 - The lip of the bin can also be adjusted up or down or removed completely by removing the screws shown below:

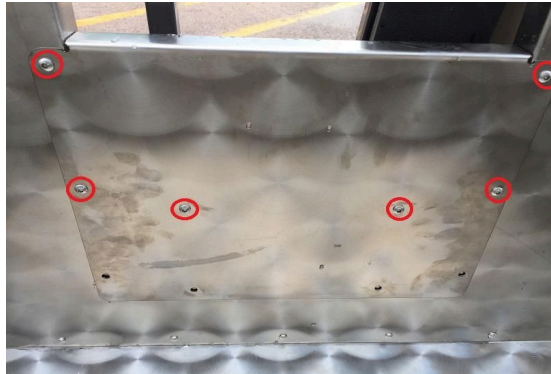


Figure 10) Adjusting the Bin Lip Height

2.5. Connecting to a Network

SmartFeed must have at least one of the following types of connection:

- WiFi - requires configuration when connecting to a new WiFi network.
- Ethernet - requires additional equipment and an ethernet cable run to SmartFeed.
- Cellular - requires a cellular modem (available at additional cost). A monthly cellular data plan charge may apply, depending on the cellular provider.

In order for multiple SmartFeed Pro systems to synchronize their feed intake records with each other, they must communicate over an internet connection.

Failure to synchronize may result in animals being allowed more feed than the user specifies. For SmartFeed systems that are within 100 feet of each other, it is recommended to connect them to the same network (usually WiFi). This will ensure synchronized feed intake records. Please contact C-Lock Inc. for assistance in configuring your network.



2.5.1. WiFi

SmartFeed can be configured to connect to any WiFi network. Please see **Section 3** for instruction on using Control Feed to configure SmartFeed to use a new WiFi network.

2.5.2. Ethernet

Additional equipment must be installed into SmartFeed to allow for an Ethernet connection. To use an ethernet connection, please contact C-Lock.

2.5.3. Cellular

If your SmartFeed(s) came with a cellular modem, they will already be configured to connect to the modem. For US customers, the modem will also include a pre-installed SIM card. No additional work is required.

For international customers, an activated 2FF “Mini SIM” card will be required. Please ensure that the SIM card has a data plan allowance of at least 1GB per month of data.

For instructions on installing the SIM card, see Appendix B.

2.6. Calibrating and Checking the Scale

- ❗ It is recommended to recalibrate the scale any time the feed bin is removed or the system is moved or repositioned.
- ❗ It is recommended to check the scale for accuracy every time the bin is empty - or on a weekly or monthly basis. This will ensure accurate readings.
- ❗ SmartFeed operates on the principle of bin weight changes. If at any time, the operator must change the amount of feed in the bin, it is important to mark that event so that it's not interpreted as unknown intake. To mark an event as an empty or fill event, please see **Section 3, part 6g**.



To check for accurate weight measurement:

1. Make note of the current weight in the feed bin using the Control Feed app.
2. Place the calibration weight in the feed bin. Every C-Lock provided calibration weight will have the exact weight marked on it.
3. Ensure the SmartFeed bin weight increases by the correct amount.
4. If the weight increase is incorrect - check that the feed bin is fully suspended only by the load cell bars. If it is suspended correctly, please calibrate the scale.

To calibrate the scale:

1. Remove all feed and debris from the feed bin. If needed, open the cleaning door to remove the last bits of feed.
2. From the Control Feed app, tap Zero
3. When prompted to zero, ensure nothing is touching the bin. Then tap Yes.
4. tap Set Span and Calibrate
5. Type in the mass of your calibration weight, ensuring to select the appropriate units of weight (lb or kg).
6. Type in the mass of your calibration weight, ensuring to select the appropriate units of weight.
7. tap "Calibrate"
8. The correct weight should now be displayed on Control Feed.

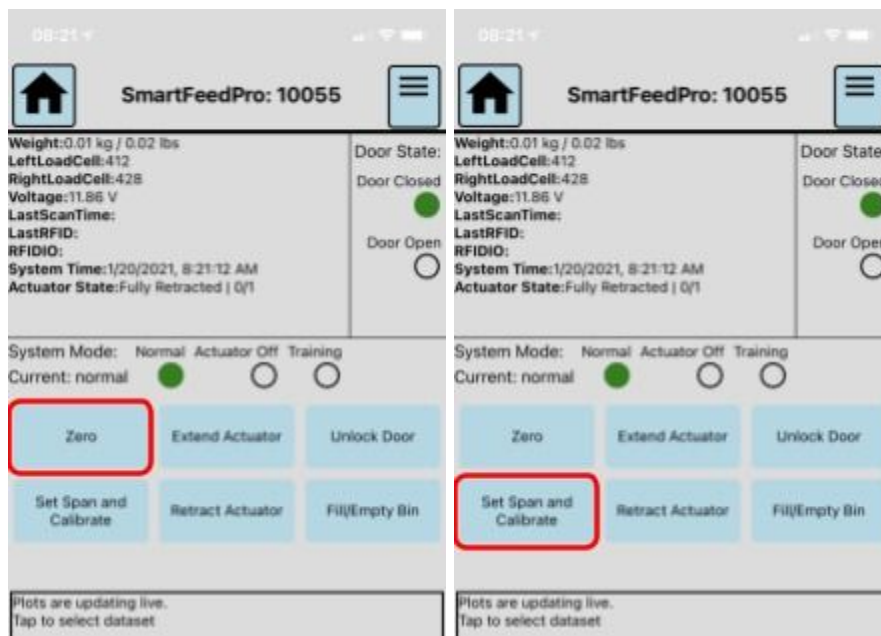


Figure 11) Zeroing (Taring) and Calibrating SmartFeed

2.7. Checking your EID (RFID) Tags

To check if the RFID reader is working for your EID tags:

1. You will need a spare ear tag.
2. Open the electronics box by unlatching the 2 fasteners (Figure 12).
3. Hold the ear tag next to the RFID antenna (Figure 1).
4. Watch for the green "READ" light blink on the RFID circuit board in the electronics box. When you see the green "READ" light blink, this means it has detected an RFID tag.

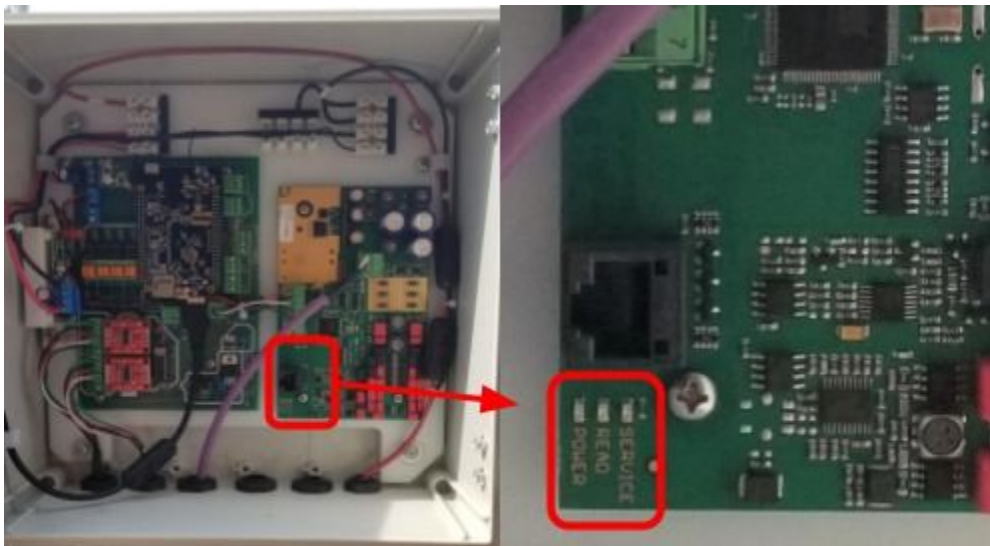


Figure 12) Checking the RFID Reader

3. Control Feed Mobile App

Although SmartFeed is an online measurement system, most common tasks can be performed from the feeder itself using the Control Feed mobile app.

To install Control Feed on your mobile device, search for “Control Feed” by C-Lock Inc. in the Google Play Store or Apple App Store.

Initial Operation of Control Feed

1. Begin by tapping “Start Scanning for Systems”.
2. A list of nearby devices (within 50ft / 15m) will appear. See Figure 13.
3. Tap the System you wish to control.
4. A side-box will appear while it attempts to connect to the system.



Figure 13) Scanning and Connecting to a SmartFeed System

5. Once connected, tap the button on the side to launch the control interface.

6. From this interface, you can:
- see the current state of each sensor on the system.
 - Configure the system for training mode or regular mode *
 - Zero/Tare the bin
 - Recalibrate the bin
 - Manually move the high-power kick-out actuator
 - Manually unlock the door
 - Indicate that the bin is about to be emptied or filled
 - View a real-time plot of data
 - Change WiFi network credentials for the feeder
 - Return to the list of all scanned feeders
 - See which feeders are currently connected

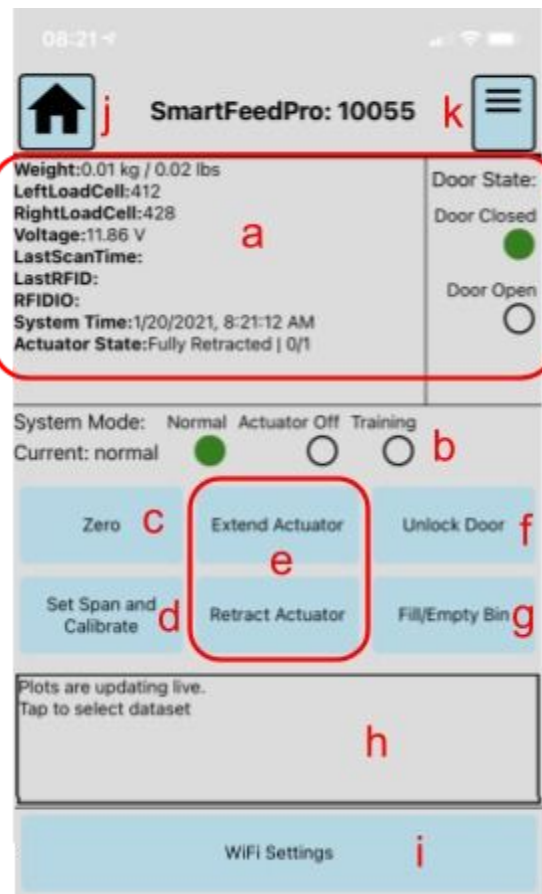


Figure 14) Control Feed Main Interface Controls



i * Note: The System Mode has three settings: Training, Actuator Off, and Normal. The differences between these three are listed below:

- **Training mode** will keep the door unlocked and will never push animals out. This mode is helpful to teach the animals that they need to push the door down in order to get feed. This is meant as the second step to teaching animals to eat from the system. (See **Section 2.3** for the first step in training).
- **Actuator Off mode** will allow SmartFeed to lock the door, to keep animals out, but will not enable the actuator to push animals out. This means that once the door does unlock for an animal, they will be able to eat as much as they want until they lift their heads up - similar to a Calan gate operation. This is a useful “intermediate” step between fully training animals and using the system in normal mode.
- **Normal mode** will configure the system to lock the door and push out animals once they have eaten their feed allotment.

Please note that if using any one of these three settings, you must also configure the system to “Normal” mode from the online interface.

Configuring the WiFi Network Credentials

To change the WiFi network that SmartFeed connects to:

1. Tap “WiFi Settings”
2. Tap the button with the WiFi network you wish SmartFeed to use
 - If the network is an open network (no password), select None
3. In the box that appears, select WPA2
4. Enter the password for the network under “Password” (if applicable).
5. Tap Add. The system will immediately reboot and connect to the new network.

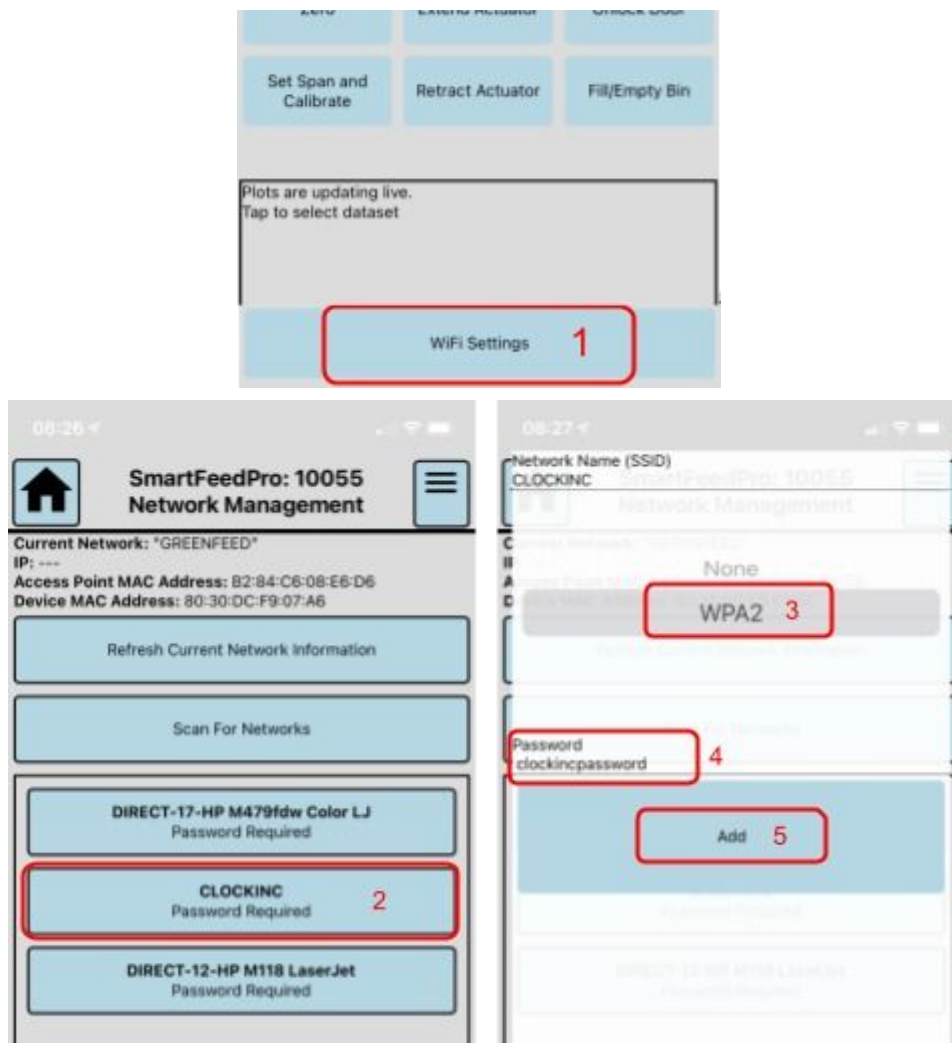


Figure 15) Control Feed WiFi Configuration



4. Training Animals

- SmartFeed requires all animals to have an RFID tag. SmartFeed is compatible with the following RFID standards: ISO 11784 or ISO 11785 (HDX and FDX tags). To purchase these tags, please contact C-Lock.
- SmartFeed has a built-in RFID Reader. This reader will scan the tags automatically.
- When introducing the animal to the SmartFeed for the first time, it is important to make sure the animal associates the SmartFeed with food.
- It is recommended to set the door height to 100% open (**Section 2.1**), or use the training latch (**Section 2.3**). This will allow the animals to see and understand that there is feed in the bin.
- Once the animal becomes familiar with the feed in the bin, close the door 50% open (**Section 2.1**) and continue feeding the animal.
- Over the course of 5 to 7 days, the animals should understand and be cooperative with SmartFeed. At this time, the door can be set to fully closed (**Section 2.1**).

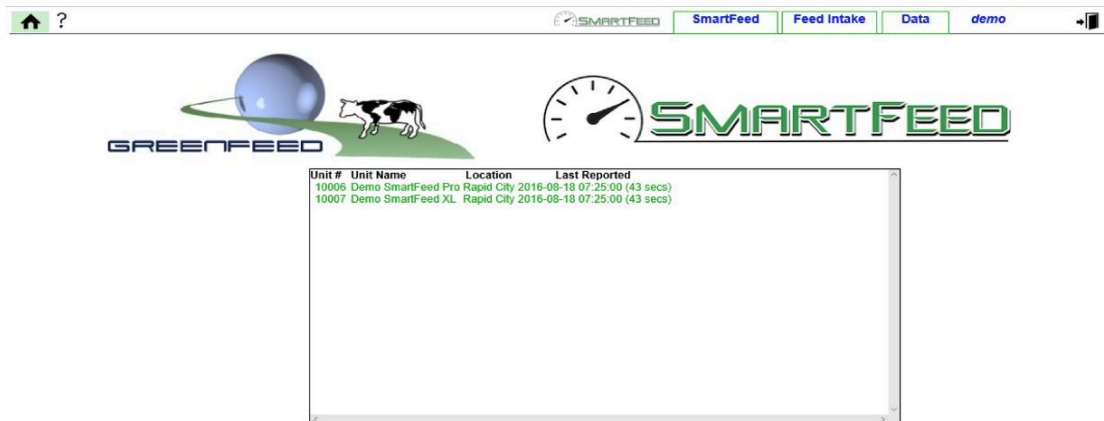
5. Online User Interface

By accessing the SmartFeed interface, users are allowed to customize notifications, adjust configurations, monitor SmartFeed unit(s), and more.

🔑 Log in to <https://ext.c-lockinc.com> with your assigned credentials.

Navigate through the website by selecting each page on the top of the screen: [Home icon](#), [SmartFeed](#), [Feed Intake](#), or [Data](#).

5.1. Home



The home table displays each of your SmartFeed units. The Unit Number, Unit Name, Location, and Last Reported time will appear in the table.

| If color is... | Time last Synced |
|----------------|------------------|
| Green | Seconds ago |
| Yellow | Minutes ago |
| Red | Hours ago |
| Grey | Days ago |

 For additional assistance, click the ? button in the upper-left corner.

5.2. SmartFeed


SmartFeed makes measuring feed intake simple. The following page allows the user to customize, monitor, and configure SmartFeed settings and data.

1 Systems

Demo SmartFeed Pro (10006)
Demo SmartFeed XL (10007)

Refresh

2 SmartFeed Information
SmartFeed ID: 10006
SmartFeed Name: Demo SmartFeed Pro
Status: **Online**
Location: Rapid City
Type: Feedlot
Last Restart: 2016-08-17 10:23:33
Last Known IP: 10.1.1.1

3 System Static Image


Upload Image

View Feed Intake Data

4 Real-time
Last Tag: none
Current Local Time: 2016-08-18 07:08:57
Current Mass: 12.5 kg

5 Up-to-the-Minute Mass Measurements

Update

| System ID | System Description | Mass kg (lbs) | Last Updated | Data |
|-----------|----------------------------|---------------|-------------------------------|----------------------|
| 10006 | Demo SmartFeed Pro (10006) | 12.53 (27.62) | 2016-08-18 07:08:00 (38 secs) | View |
| 10007 | Demo SmartFeed XL (10007) | 17.22 (37.96) | 2016-08-18 07:08:00 (38 secs) | View |

- 1. Systems:** SmartFeed systems owned by the current user will appear here. Select one of the SmartFeed feeders to view more information.
 - 2. SmartFeed Information:** General information such as ID, NAME, STATUS, etc.
 - 3. System Static Image:** Click the Upload Image button to select an image for your SmartFeed feeder (not required).
 - 4. Real-Time:** Displays the last RFID tag detected, Current Local Time, and Current Mass.
 - 5. Up-to-the-Minute Mass Measurements:** Displays the SmartFeed(s) ID, System Description, Current Mass, and Last Updated time.
- i** These values are updated once per minute, as long as the system is connected to the Internet. Click the Update button to refresh the Real-Time data.



General Settings

Known mass of calibration weight for scale: 9.18 kg = 20.24 lb

Times to upload data (:mm:ss): :24:20

Time to reset the animal feed quota: 00:00:00 every 1 day(s)

Remember a tag for: 5 seconds

This feeder is set to: ☒ Normal Mode ☐ Door Propped Open Mode

Limit one feeding period (door open time) to a maximum of: 1800 seconds

Feed animals if there is an internet connection issue: ☐ No - Do not feed ☒ Yes - Feed

Only feed from this feeder in these specified hours: 00,01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20,21

Note: Please do not use ranges. Ex: 9:00am - 1:59pm (09:00 - 13:59), use: 09,10,11,12,13

- **Known Mass of calibration weight for scale:** The displayed mass is the mass of the calibration weight entered on the SmartFeed (see **Section 3.7**).
- **Times to upload data:** enter the specific minute and second of each hour for automatic upload.
Use the format (:mm:ss) when entering digits for “Times to upload data”.
- **Time to reset the animal feed quota:** Enter the specific time of quota reset. Resetting the quota will set the animal’s feed intake to zero. This allows the user to specify what time of day the animals are allowed to eat again.
- **Remember a tag for:** Recommended to leave this value at 5~6 seconds. If tags are very infrequently picked up, they can be automatically remembered longer than their actual scan duration.
- **This feeder is set to:** When calculating animal intake, SmartFeed must know what state it is set to. When using the training latch (**Section 2.1**) set this to “Door Propped Open” for all other settings, use “Normal”
- **Feed animals if there is an internet connection issue:** If preventing overfeeding is very important, it is recommended to only leave one system per feed type set to feed in case internet connection is lost. This will prevent all other systems from feeding, but prevent all systems from feeding without being able to synchronize their allotment.
- **Only feed from this feed in these specified hours:** Prevent the system from feeding at specific hours of the day. Use comma separated and 24-hour numbers.



- **Email:** You can assign different alerts to different email addresses. For instance, when a bin is nearly empty, it will email a particular person or a group of persons. Enter email address(s) for notifications. Multiple emails can be entered by separating with a comma (e.g johnsmith@example.com,marysmith@example.com).
- ❗ Any adjustments made in the configuration will sync with the SmartFeed system while it is connected to the Internet.
- ❗ Once changes have been made, click Save Settings. You will receive a confirmation.

5.3. Feed Intake

This page will show the feed intake for each animal in a given time-span.

5.3.1. Animal Statistics

A screenshot of the "Animal Statistics" web interface. It shows a navigation bar with tabs for "Animal Statistics", "Feed Types", and "Feed Intake Allotment". Below the tabs, there's a "Feeder:" dropdown menu set to "All Feeders", a date range selector from "01/21/2021" to "01/24/2021", and checkboxes for "Show All" and "Show Visits". On the right, there's a "Show weights in" dropdown set to "Pounds (lb)" and buttons for "Go", "Download", and "Alt. Download".

1. Select desired feeder(s) in the “Feeders” drop-down menu.
 - The feed intake tables will only display for the selected feeders.
 - Selecting numerous (20 or more) feeders at once will take longer to compute intakes
2. Enter the date range.
 - Large date ranges (multiple weeks at once) may take longer to compute. By default, the last four days are chosen.
3. Check Show Visits to view the individual visits of animals (rather than only daily intakes). You will be limited to a maximum of 5000 entries when viewing in the browser.
4. Click the “Go” button to view the summary table for the chosen data range.
 - The first sets of tables are categorized by type of feed. Each animal’s intake is displayed by day in the selected date range.
 - The last table displays each individual intake in ascending order based on time. This last table will not appear if the list is too long. To view this



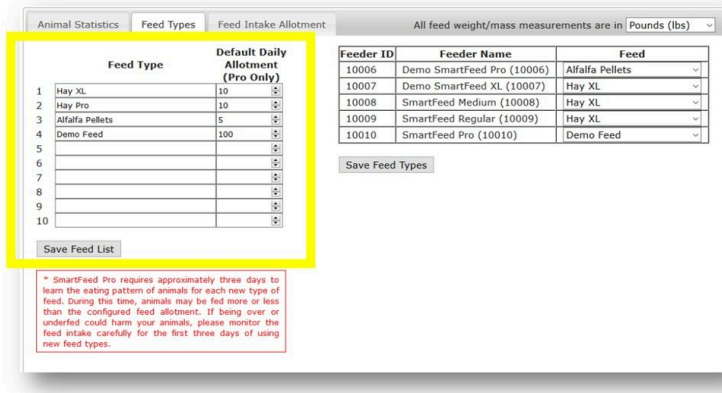
table, only choose one day to view.

5. To download the data as a CSV for use in a spreadsheet program or other software, click the “Download” or “Alt. Download” button. These two buttons will provide different formatting to the data. Each has benefits depending on what software will be used for viewing:
 - Use Alt Download for Excel or spreadsheet software
 - Use Download for R, SAS, or other statistical software

5.3.2. Feed Types

Before SmartFeed can synchronize, track, and control feed intake, you must first define what type of feed is in each feeder.

- On the left table, enter each Feed Type that will be used and the Default Daily Allotment (Smartfeed Pro Only).
 - A maximum of 10 feed types is allowed.
- Click “Save Feed List” for changes to take effect.



| Feed Type | Default Daily Allotment (Pro Only) |
|-------------------|------------------------------------|
| 1 Hay XL | 10 |
| 2 Hay Pro | 10 |
| 3 Alfalfa Pellets | 5 |
| 4 Demo Feed | 100 |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |

Save Feed List

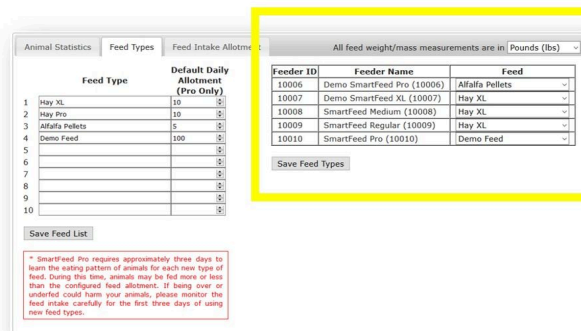
| Feeder ID | Feeder Name | Feed |
|-----------|----------------------------|-----------------|
| 10006 | Demo SmartFeed Pro (10006) | Alfalfa Pellets |
| 10007 | Demo SmartFeed XL (10007) | Hay XL |
| 10008 | SmartFeed Medium (10008) | Hay XL |
| 10009 | SmartFeed Regular (10009) | Hay XL |
| 10010 | SmartFeed Pro (10010) | Demo Feed |

Save Feed Types

* SmartFeed Pro requires approximately three days to learn the eating pattern of animals for each new type of feed. During this time, animals may be fed more or less than the configured feed allotment. If being over or underfed could harm your animals, please monitor the feed intake carefully for the first three days of using new feed types.

If an animal encounters the SmartFeed with an unrecognized RFID tag, the Default Daily Allotment will be set to that ear tag

- On the right side of the page, select the correct feed type, for each SmartFeed unit, by using the drop down menu on the right table.
- Click “Save Feed Types” for changes to take effect.



| Feed Type | Default Daily Allotment (Pro Only) |
|-------------------|------------------------------------|
| 1 Hay XL | 10 |
| 2 Hay Pro | 10 |
| 3 Alfalfa Pellets | 5 |
| 4 Demo Feed | 100 |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |

Save Feed List

| Feeder ID | Feeder Name | Feed |
|-----------|----------------------------|-----------------|
| 10006 | Demo SmartFeed Pro (10006) | Alfalfa Pellets |
| 10007 | Demo SmartFeed XL (10007) | Hay XL |
| 10008 | SmartFeed Medium (10008) | Hay XL |
| 10009 | SmartFeed Regular (10009) | Hay XL |
| 10010 | SmartFeed Pro (10010) | Demo Feed |

Save Feed Types

* SmartFeed Pro requires approximately three days to learn the eating pattern of animals for each new type of feed. During this time, animals may be fed more or less than the configured feed allotment. If being over or underfed could harm your animals, please monitor the feed intake carefully for the first three days of using new feed types.



5.3.3. Feed Intake Allotment

With SmartFeed Pro, you can control how much of any particular feed type a specific animal is able to receive.

1. The table on this page shows a list of every animal that has visited a SmartFeed feeder.
2. It also includes how much of each feed type that animal is able to receive per day.
3. You may also give the animal a Visual ID by changing the Animal Name. This does not affect the operation of SmartFeed. It is only for convenience purposes.
4. To make changes to an animal's allotment, find the animal and enter the value underneath each feed type and click Save.

Animal Statistics
Feed Types
Feed Intake Allotment
All feed weight/mass measurements are in Pounds (lbs)

| Saved | Animal Name | RFID Tag | Hay | Alfalfa | Cracked Corn |
|-------|---------------|-------------------------|-------|---------|--------------|
| Yes | 100101_Apple | 00000000900014002508353 | 44.09 | 6.61 | 4.41 |
| Yes | 100102_BigBen | 00000000900014002508396 | 44.09 | 6.61 | 4.41 |
| Yes | 100103_Clovis | 00000000985171000600578 | 44.09 | 6.61 | 4.41 |
| Yes | 100104_Oreo | 00000000982000209460954 | 44.09 | 6.61 | 4.41 |
| Yes | 200104_Iams | 00000000982000209460975 | 44.09 | 6.61 | 4.41 |
| Yes | 200104_Iams_2 | 00000000982000209460981 | 44.09 | 6.61 | 4.41 |

Save

* SmartFeed Pro requires approximately three days to learn the eating pattern of animals for each new type of feed. During this time, animals may be fed more or less than the configured feed allotment. If being over or underfed could harm your animals, please monitor the feed intake carefully for the first three days of using new feed types.



5.4. Data

The data tab is meant for viewing data on a single chart, which is not required for normal use. This feature can be useful for examining general trends in your herd. For more information on using the Data page, please contact C-Lock.

6. Maintenance

- To clean the inside of the feed bin, unlatch the two cleaning door locks and allow the door to drop. Use a power washer to spray and remove all debris and residue.
- To ensure accurate weight, clean underneath the bin. Make sure there is no food or debris touching the bottom of the feed bin.
- Check the bin calibration (**Section 2.6**) once per week and recalibrate as necessary.

Appendix A - Configuring the Cellular Modem

If your SmartFeed system includes a cellular modem, the modem will be pre-configured. The only thing that must be done is inserting an activated Mini-SIM (type 2FF) card and checking for an Internet connection. To do this, follow these steps:

- 1) Locate the modem. It will be in the SmartFeed battery box, or in a separate box by itself.



- 2) Disconnect power from the modem to turn it off.
- 3) Insert the 2FF SIM card into the slot.



- 4) Apply power and ensure the modem lights turn on.
- 5) Wait three minutes.



- 6) Use a laptop, tablet, or smartphone to check for a WiFi connection. The name of the WiFi network will vary depending on the SmartFeed configuration, but the network should start with "SMARTFEED".
- 7) Join this network, when prompted for the password, enter: smartfeed
- 8) On the laptop, tablet, or smartphone, go to <http://www.c-lockinc.com/ip> You should be presented with the following message: **Your IP address is xx.xx.xx.xx**
- 9) If you see this message, it means your modem is configured and ready.
- 10) If you do not see this message, please contact C-Lock for assistance.