Omni Select
Directional Weight Variance Report
Phason Farms
Phason
electronic control systems
Select Sort

Table of contents

Chapter 1 2

Introducing Select Sort 2
Select Sort features and advantages 2
Optional CD-1 Color Detector 4
Requirements for AutoSort Connect 4
Select Sort windows 5
Communication Center 5
Configuration window 6
Settings window 7
Reports window 8

Chapter 2 9

Configuring Select Sort 9
Adding, editing, and removing sorters 10
Activating and deactivating sorters 11
Configuring sorters 11
Configuring the sorter profile 12
Configuring sorter poweroff 14
Configuring sorter timing 15
Configuring weights 18

Chapter 3 20

Using Select Sort 20
Setting alarms 21
Tracking herd size 22
Setting pen capacities and hold backs 23
Adding notes 24
Selecting the sort mode 26
Using Training mode 28
Using Auto-Sort mode 29
Using FCO mode 33
Using Sort Curve mode 36
Viewing sorters 38
Using the Manual Control Viewer 38
Using the Sort Summary Viewer 40

Chapter 4 41

Select Sort reports 41
Report descriptions 42
Creating reports 55
Selecting dates 57
Using the Market Forecaster 58

Appendix 61

Troubleshooting 61
Incorrect weights 62

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Chapter 1

Introducing Select Sort

Select Sort integrates Phason's AutoSort scale heads into OMNI Select. Select Sort allows you to monitor and configure your scale heads from a central computer. Select Sort allows you to easily locate the information you need to know. Within seconds, you can easily find:

- Minimum, maximum, average, and median weights
- Average daily gain – a great indicator of how the herd is performing
- Weight distribution, standard deviation, and coefficient of variance
- Hits (weight readings) per hog
- Weight group and sort direction summaries

Select Sort features and advantages

- **Auto-Sort mode** automatically sorts according to weight group settings
- **FCO mode** (food court optimization mode) helps optimize food court space by using programmable two or three-way splitting percentages to keep food courts from being overcrowded or underused. Select Sort can calculate set points based on up to the previous five days of data.
- **Sort-curve mode** uses industry-leading growth curves to optimize food courts and feeding strategies. Select a predefined curve or adapt one to your herd growth model and management style. Sort curves allow you to easily determine how far you are from your target performance.
- **Training mode** for training new hogs to use the sorter
- **Market sorting** sorts painted and/or weight-range hogs according to special settings, gets the heaviest hogs to market
- **Market Forecaster** is a powerful tool that estimates how many hogs will be ready to ship over the selected date range
- **Automatic data collection** automatically collects weight and sorting information and stores it for later viewing
- **Manual Control Viewer** allows users to quickly interact with and manually operate any scale head, ideal for testing installation and equipment
- **Sort Summary Viewer** displays information about all sorters and their current market status
- **Interactive, easy-to-use displays** make it easy to configure, monitor, and optimize your system

- **Informative, customizable reports** are available in printable, portable, and exportable formats
- **No activity alarm, stuck animal alarm, and pen capacity warnings** inform you about problems and potential overcrowding in pens
- **Painter operation** allows you to mark (paint) hogs that are within your defined ranges.
- **Optional color detection and sorting** sorts painted hogs according to special settings
- **Optional air chaser** motivates slow hogs to leave the sorter
- **Optional EID/RFID** allows you to track the movement of each hog

Report descriptions

- **Settings Report** lists the current or historical settings for the selected sorter, sorted by date.
- **Configuration Report** lists the current or historical configuration for the selected sorter, sorted by date.
- **Standard Weight Variance Report** is a chart showing the weights for the date range, including the minimum, maximum, and average weights. At the bottom of the report is a statistical summary listing the number of weight readings, the total, minimum, maximum, and average weights, standard deviation, and average daily gain for each day of the report.
- **Directional Weight Variance Report** is a chart showing the weights for the date range, including the left, right, straight, and combined (total) averages. The tables list daily and total summaries for hits, weight, and average weight for each direction.)
- **Time of Day Report** is a chart showing how active your sorter is during each hour of the day.
- **Grid Weight Report** is a chart showing the placement of all hits in relation to defined grid weights. The summaries at the bottom of the report estimate the number of hogs that are in the grid, as well as the revenues and losses associated with them.
- **Daily Summary Report** is a summary for each sorter, including total weight readings (hits), minimum, maximum, average, and median weights, standard deviation, coefficient of variance, and average daily gain. At the bottom of a report is a total summary of all the sorters at the site.
- **Weight Distribution Report** is a chart showing the approximate number of hogs at each weight and the standard deviations. It includes a summary listing the number of hogs that were sorted, the total, minimum, maximum, and average weights, and the standard deviation.
- **Basic Daily Report** lists the settings, a weight group summary, and a gate direction summary, and a complete list of weight records (sorted by time) for the day.
- **Detailed Daily Report** is a longer version of the basic daily report that also includes a complete list of weight records (sorted by time) for the day.

- **Weight Records** is a list of weights and IDs, sorted by date and time.
- **Market Sorting Report** lists the market sort settings, individual hog weights, and a summary of all hogs that were sorted using the settings.
- **Market Forecaster Report** is an estimate of how many hogs will fall within different weight ranges over a date range. The Market Forecaster Report is an excellent tool for predicting shipping dates.
- **Herd Size Report** lists the changes in herd size, and the reasons for those changes. The summary includes a total for each reason.

For more information about reports, read **Select Sort reports** on page 41.

Optional CD-1 Color Detector

Using the optional Color Detector (CD-1), the system automatically detects and sorts painted hogs in a specific direction. Uses for color sorting include gilt selection, sick hog segregation, and more.

For example, you can select and mark gilts for breeding. When one of the painted gilts moves through the sorter, the CD-1 detects the painted hog, and the system sorts it according to the color sorting settings. This allows you not only to separate the gilts, but also to confirm that they are the correct weight.

Requirements for AutoSort Connect

To use AutoSort Connects with OMNI Sort, your OMNI Select software must be version 1.5.0.2 or later and your AutoSort Connect controls must be version 1.01 or later.

Before installing OMNI Select, make sure all your AutoSort Connect controls have the latest version. For information about upgrading, contact your dealer or Phason customer support.

Select Sort windows

Communication Center

The Communication Center displays all communication, status, and alarm messages from OMNI Select modules and devices. Check the Communication Center regularly to ensure systems are functioning normally and to see if there are problems or potential problems.

The Communication Center is the only area of OMNI Select that is available to all users, regardless of their access. The Communication Center is also the gateway to the Main window, where you can access settings, configuration, and reports.

A This area lists your devices and their status. To see a list of communication and system messages for a specific device, click on that device.

B This button opens a window that displays all messages for all devices.

C This button opens a window that displays version and system information.

D This button opens the OMNI Select login window, which is where you enter your username and password to access other areas of the system.

E This button opens *Help files* window, which is where you can open any of the user manuals for the modules you have installed.

For more information about logging in to OMNI Select, and the Communication Center, read the appropriate sections in the **OMNI Select user manual**.

Configuration window

The *Configuration* window is where you configure the structure of your site, as well as sorter options you configure seldom or only once at the beginning.

A This button displays the configuration window.

B This button displays the configuration for Select Sort.

C This is a list of sorters in each building at your site and where you select the sorter you want to configure.

For more information about the *Configuration* window and configuring sorters, read **Chapter 2**, starting on page 9.

Settings window

Using your sorting system includes making day-to-day changes, such as selecting the sort mode, adjusting sort settings, and updating the herd size. The *Settings* window is where you make those changes.

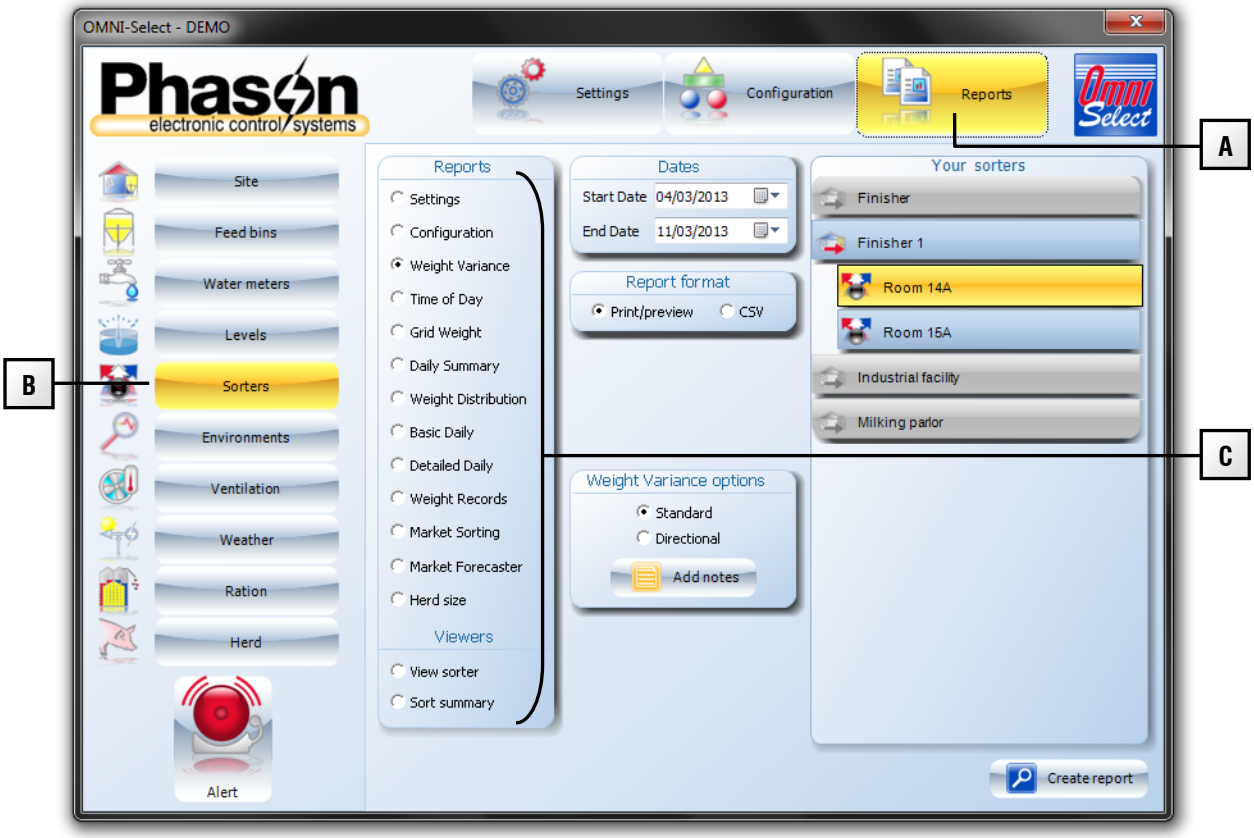
A This button displays the *Settings* window.

B This button displays the settings for Select Sort.

C This is a list of sorters in each building at your site and where you select the sorter you want to set up.

For more information about the *Settings* window and setting up sorters, read **Chapter 3** on page 20.

Reports window



A This button displays the reports window.

B This button displays the available Select Sort reports.

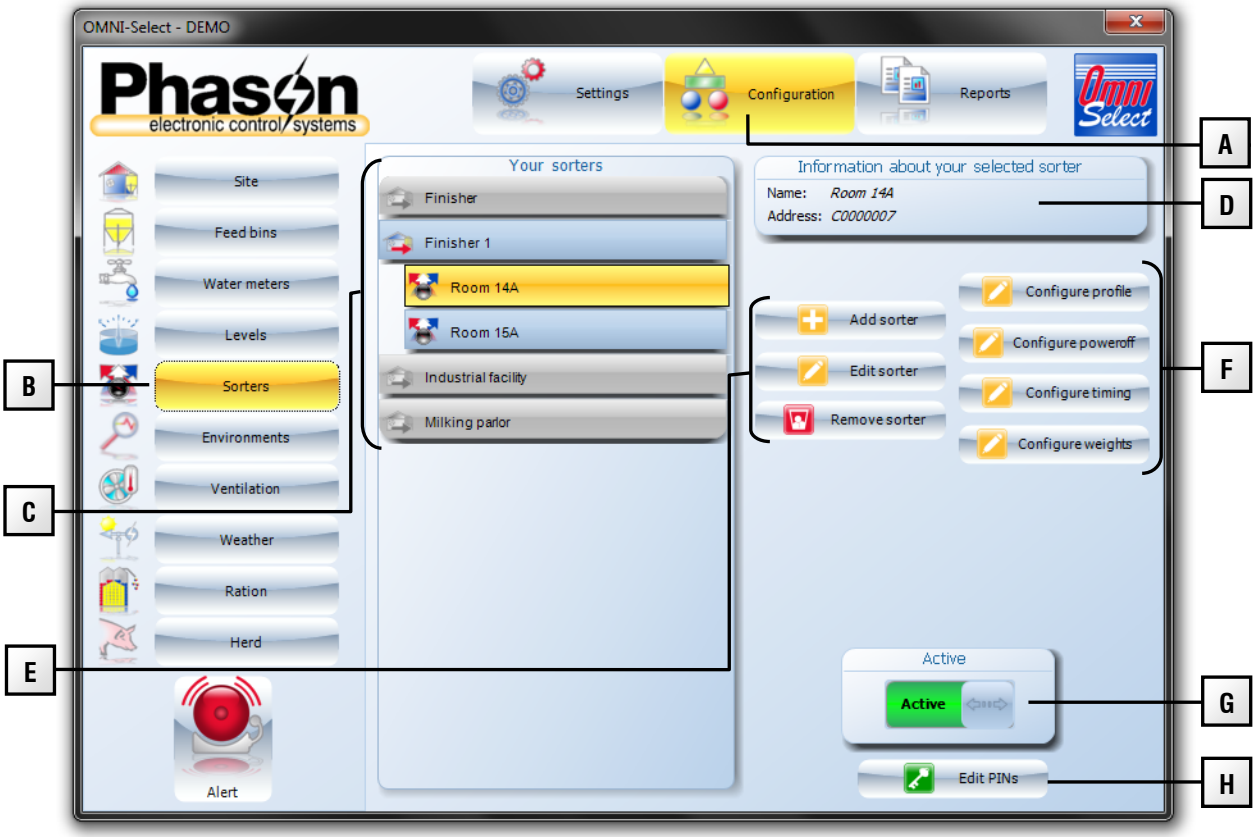
C This is where you select the report you want to create.

For more information about the *Reports* window and creating reports, read **Creating reports** on page 55.

Chapter 2

Configuring Select Sort

The *Configuration* window is where you configure the structure of your site, as well as sorter options you configure seldom or only once at the beginning.



A This button displays the configuration window.

B This button displays the configuration for Select Sort.

C This is a list of sorters in each building at your site and where you select the sorter you want to configure.

D This is the name and address of the selected sorter.

E The top two buttons open the *Sorter description* window, which is where you add a new sorter or edit the selected sorter. The bottom button removes the selected sorter from your system.

F These buttons open the sorter configuration windows, which are where you configure the selected sorter.

G This is where you activate or deactivate the selected sorter.

H This button opens the *PIN configuration* window.

Adding, editing, and removing sorters

Select Sort identifies sorters using the address on the AutoSort Scale Head. An address is a unique eight-digit code the software uses to locate and identify the scale head. Each scale head is programmed with an address before it leaves the factory. To locate the address for a specific scale head, check inside the cover.

Because remembering eight-digit codes to identify scale heads is all but impossible for us humans, Select Sort makes it easier by allowing you to give each scale head a name. When giving a scale head a name, try to make the name as descriptive and useful as possible. For example, *Finisher NW1*, *Finisher SW1*, *Finisher NE1*, and *Finisher SE1* are more descriptive and useful than *Sort 1*, *Sort 2*, and so on.

Before you can add scale heads, you must have at least one building. For information about adding buildings, see the **OMNI Select user manual**.

To add a sorter

1. In the main window, click **Configuration**, and then **Sorters**.
2. Click **Add sorter**.
   The Sorter description window displays.
3. Beside *Name*, type a descriptive name for the sorter.
4. Beside *Address*, type the address of the new scale head exactly as it appears on the product.
5. Beside *Building*, select the building in which the sorter is located.
6. If you are using wireless communication, beside Wireless adapter, select the address of the adapter (PWA) connected to the sorter.
7. Click **OK** to save the information and return to the previous window.

When you add a sorter, its status is automatically set to *active*. If you want the sorter to be inactive, follow the **Activating and deactivating sorters** instructions on page 11.

To edit a device

1. In the main window, click **Configuration**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to edit and then click **Edit sorter**.
   The Sorter description window displays.

3. Make the changes.
   - Beside *Name*, type a descriptive name for the device.
   - Beside *Address*, type the address of the device exactly as it appears on the product. For more information, see the installation guide for the device.
   - Beside *Building*, select the building in which the device is located.
   - If you are using wireless communication, beside Wireless adapter, select the address of the adapter (PWA) connected to the sorter.
4. Click **OK** to save the device information and return to the previous window.

To remove a device

1. In the main window, click **Configuration**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to remove and then click **Remove sorter**. A warning message displays.
3. To remove the sorter, click **Yes**. To cancel and return to the previous window, click **No**.

Activating and deactivating sorters

When you add a sorter, its status is automatically set to *active*. When a sorter is active, you can configure and set up the sorter, as well as view and print charts and reports for it. When a sorter is *inactive*, you can only view and print charts and reports for it.

To activate or deactivate a sorter

1. In the main window, click **Configuration**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to activate or deactivate.
3. Below *Active*, click and drag the slider to the status you want.

Configuring sorters

Unlike settings, which change as the hogs grow, sorter configurations usually remain the same. Configuring sorters includes telling Select Sort if the sorters are two or three-way sorters, the default positions for gates, and how long to wait for gates to open or close during sorting.

There are four sorter configuration sections:

- **Configuring the sorter profile** (below) – type of sorter, active sensors, enable optional accessories
- **Configuring sorter poweroff** (on page 14) – gate positions when there is no power
- **Configuring sorter timing** (on page 14) – timing of the gates, painter operations
- **Configuring weights** (on page 14) – for determining if a hog is on the scale

Configuring the sorter profile

The sorter profile lets Select Sort know how the sorter is set up and which sensors are active. There are six profile items: *sorter type*, *default sort direction*, *tailgate sensor*, *headgate sensor*, *color sensor,* and *painter 2/air chaser operation.*

Sorter type

The sorter type lets Select Sort know if the sorter is a two-way or three-way sorter. Selecting the wrong type can cause the sorter to operate erratically.
Default: three-way

Default sort direction

The default direction lets Select Sort know which direction to sort any hog that cannot be weighed properly for whatever reason (too light, too heavy, error, and so on). Any hog that does not fit into a weight category will be sorted in the default sort direction.
Default: left

Tailgate sensor

The tailgate sensor item lets Select Sort know if the tailgate sensor is enabled or disabled.
Default: on

Headgate sensor

The headgate sensor item lets Select Sort know if the headgate sensor is enabled or disabled.
Default: on

When a headgate or tailgate sensor is disabled, the corresponding gate (head or tail) operates according to the timing configuration. The scale head will not “sense” to see if the gate is closed before opening the next gate. For more information, read **Configuring sorter timing** on page 15.

Color sensor

The color sensor item lets Select Sort know if the optional CD-1 Color Detector has been installed on the scale head.
Default: off

Painter 2/air chaser operation

This option lets you select whether the painter 2 output on the scale head has a painter solenoid or air chaser installed. A second painter requires a solenoid kit (**model KASC-PAINT**).
Default: off

To configure sorter profiles

1. In the main window, click **Configuration**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to configure.
3. Click **Configure profile**.

   The *Sorter profile configuration* window displays.

4. Change the item(s) you want to configure.
   - To change the *Sorter type*, *Default sort direction*, or *Painter 2/Air chaser* configuration, select the option you want. For *Painter 2/Air chaser*, you also need to click and drag the slider to the position you want.
   - To change the *Tailgate*, *Headgate*, or *Color sensor* configuration, click and drag the appropriate slider to the position you want.
5. Click **OK** to save the changes and return to the main window.

Configuring sorter poweroff

Select Sort uses the poweroff configuration as a reference for all gate functions. The poweroff configuration is the position of each gate when there is NO POWER to the scale head.

- ◇ The hoses connected to the scale head solenoid MUST match the poweroff configuration in the software or the sorter will function erratically.
- ◇ For more information, read *Connecting equipment to the solenoid* in the **AutoSort Connect installation guide**.

There are three poweroff items: *sort direction*, *tailgate state*, and *headgate state*.

Sort direction

The sort direction determines the position (left, right, or straight) of the exit gate(s) when there is no power to the AutoSort Connect. Left means the left gate is open and the right gate is closed. Right means the right gate is open and the left gate is closed. Straight means the left and right gates are closed (three-way sort only).
Default: left

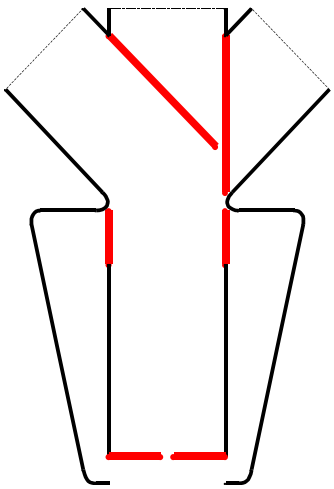
Tailgate state

The tailgate state determines the position (open or closed) of the tailgate when there is no power to the AutoSort Connect.
Default: closed

Headgate state

The headgate state determines the position (open or closed) of the headgate when there is no power to the AutoSort Connect.
Default: open

For example, when there is no power to the AutoSort Connect control, the gates position according to how the hoses are connected to the solenoids. The poweroff configuration **MUST** match the gate positions.



If the gates position as shown in the diagram when the power is off, the configuration must be set as follows: *sort direction* – left; *tailgate* – closed; *headgate* – open.

To configure sorter poweroff

1. In the main window, click **Configuration**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to configure.
3. Click **Configure poweroff**.

   The *Sorter poweroff configuration* window displays.
4. Change the item(s) you want to configure.
   - To change the *Poweroff direction*, select the option you want.
   - To change the *Tailgate* or *Headgate state*, click and drag the appropriate slider to the position you want.
5. Click **OK** to save the changes and return to the main window.

Configuring sorter timing

The sorter timing determines how Select Sort and AutoSort Connect operate the sorter equipment during the weighing and sorting process. Sorter timing includes the amount of time the scale head waits for something to happen such as a hog to move off the scale, or operates equipment such as a painter.

There are seven categories of sorter timing.

- **Tailgate operation**: *open duration*
- **Headgate operation**: *open duration*, *close duration*, *retry delay*, and *retries*
- **Processing operation**: *maximum weighing duration* and *maximum color detect duration*
- **Training mode operation**: *training gate duration*
- **Air chaser operation**: (if configured) *air chaser delay*, *air chaser on time*, and *air chaser off time*
- **Animal chaser operation**: *animal chaser delay* and *animal chaser duration*
- **Painter operation**: *paint duration*

Tailgate operation

Tailgate open duration

Tailgate open duration is the amount of time the tailgate remains open to allow a hog to move onto the scale. The tailgate open duration starts after the AutoSort Connect determines a hog is on the scale.

Default: 1.0 second; *Range*: 0 to 25.5 seconds

Headgate operation

Headgate open duration

Headgate open duration is the amount of time the headgate remains open to allow a hog to move off the scale.
Default: 2.0 seconds; *Range*: 0.1 to 25.5 seconds

Headgate close duration

Headgate close duration is the amount of time the scale head waits for the headgate to close before either reopening the gate or completing the sorting process.
Default: 1.0 second; *Range*: 0.8 to 25.5 seconds

Headgate retry delay

Headgate retry delay is the amount of time the scale head leaves the headgate open to allow a hog to move before trying to close the gate again.
Default: 1.0 seconds; *Range*: 0 to 25.5 seconds

Headgate retries

Headgate retries is the number of times the scale head tries to close the headgate before opening the tailgate and allowing a chaser hog into the scale.
Default: 10 attempts; *Range*: 0 to 255 attempts

Processing operation

Maximum weighing duration

Maximum weighing duration is how long the scale head tries to determine a valid weight. The duration starts after the tailgate closes. If the scale cannot determine a valid weight during this time, it sends the hog in the default sort direction.
Default: 10 seconds; *Range*: 10 to 30 seconds

Maximum color detect duration

Maximum color detect duration is how long the color detector tries to determine if there is a painted hog on the scale. The duration starts after the base weight has been surpassed.
Default: 10 seconds; *Range*: 1 to 30 seconds

When color sorting is active, all hogs that are not painted will stay in the scale at least this duration.

Training mode operation

Training gate duration

Training gate duration is how long the exit gates stay in one position before switching to the next.
Default: 240 minutes (4 hours); *Range*: 20 to 240 minutes

Air chaser operation

Air chaser delay

Animal chaser delay is the amount of time the scale head waits for the hog to move off the scale before trying to chase it out. Air will cycle on and off until the hog leaves or the chasing function begins.

Default: 120 seconds; *Range*: 1 to 255 seconds

Air chaser on time

Air chaser duration is the amount of time the air is on during the air chaser cycle.

Default: 2 seconds; *Range*: 1 to 25 seconds

Air chaser off time

Air chaser duration is the amount of time the air is off during the air chaser cycle.

Default: 10 seconds; *Range*: 1 to 180 seconds

If you are using the *air chaser* and *animal chaser*, the air chaser happens first because you want to chase the hog out of the sorter without losing the weight of the next hog. When the *animal chaser* delay starts, air chaser action stops and chasing begins until the weight leaves the sorter.

Animal chaser operation

Animal chaser delay

Animal chaser delay is the amount of time the scale head waits for the hog to move off the scale before sending in a "chaser hog".

Default: 180 seconds; *Range*: 1 to 255 seconds

Animal chaser duration

Animal chaser duration is the amount of time the tailgate remains open to allow a chaser hog into the sorter to chase the animal chaser out the exit.

Default: 3 seconds; *Range*: 1 to 240 seconds

If you are using the *air chaser* and *animal chaser*, the air chaser happens first because you want to chase the hog out of the sorter without losing the weight of the next hog. When the *animal chaser* delay starts, air chaser action stops and chasing begins until the weight leaves the sorter.

Painter operation

Paint duration

Paint duration is the amount of time the scale head sprays the painter when that sort action is required.

Default: 0.5 seconds; *Range*: 0.1 to 25.5 seconds

To configure sorter timing

1. In the main window, click **Configuration**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to configure.
3. Click **Configure timing**.

   The *Sorter timing configuration* window displays.

4. Change the item(s) you want to configure. To change the value of an item, click **Up** or **Down** beside that item.
5. Click **OK** to save the changes and return to the main window.

Configuring weights

The sorter weight configuration, along with the base weight (for more information, read Base weight on page 21), help AutoSort Connect determine if there is a valid weight (an animal) on the scale. If there is a valid weight, the weighing and sorting process begins. If there is not a valid weight, the scale head ignores the weight reading.

There are two weight items: *variance* and *samples*.

Variance

Variance determines a range that a weight reading must fall within, when compared to the previous reading, to be considered valid. Setting the variance lower results in more-accurate readings, but also means that fewer readings will be valid. Because the hogs do not always stand still on the scale, some variance is necessary.

Default: 2 pounds/1 kilogram; *Range*: 1.0 to 10.0 pounds/0.5 to 4.5 kilograms

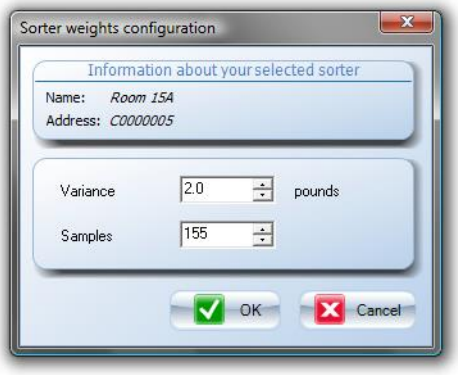
Samples

The scale head reads the weight from the load cell (scale) approximately 120 times per second. Samples is the number of consecutive weight readings required before a valid weight is determined.
Default: 100; *Range*: 25 to 255

For example, if the weights configuration is as shown and the base weight is 40 pounds, the scale head would process the weight readings as follows.

If the scale registers a weight of 5 pounds, it would not be considered a valid weight. If a hog weighing 50 pounds enters the scale, it is above the base and the weighing process begins.

The scale head reads the weight from the scale approximately 120 times per second and continuously averages the readings, or "samples". If samples is set to 155, the scale head requires 155 weight readings to determine a valid weight.



If the variance is 2 pounds, then each successive weight reading must be within (+/–) 2 pounds of the previous reading to be valid.

Sample 1: 50.0
Sample 2: 50.5 — Check the variance between these two samples/weight readings
Sample 3: 51.5 — Check the variance between these two samples
Sample 4: 51.0 — Check the variance between these two samples
Sample 5: 50.5 — Check the variance between these two samples
And so on…

To configure weight items

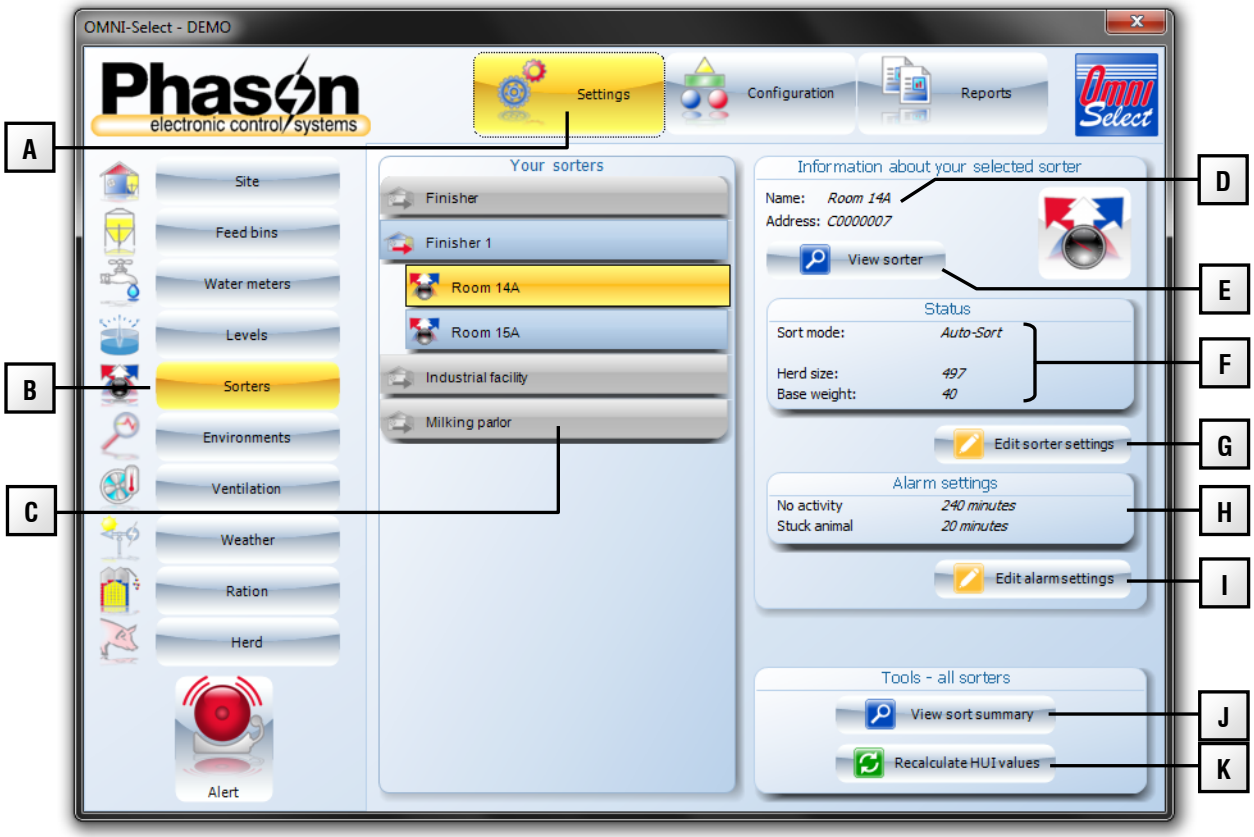
1. In the main window, click **Configuration**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to configure.
3. Click **Configure weights**.

   The *Sorter weights configuration* window displays.
4. Change the item(s) you want to configure. To change the value of an item, click **Up** or **Down** beside that item.
5. Click **OK** to save the changes and return to the main window.

Chapter 3

Using Select Sort

Using your Select Sort includes making day-to-day changes, such as selecting the sort mode, adjusting settings, and updating the herd size. The *Settings* window is where you make those changes.



A This button displays the *Settings* window.

B This button displays the settings for Select Sort.

C This is a list of sorters in each building at your site and where you select the sorter you want to set up.

D This is the name and address of the selected sorter.

E This button opens the Manual Control Viewer, where you can view sorters in near-real-time or manually control them.

F This is the current sorting mode, herd size, and base weight (see below). To change the mode or herd size, click **Edit sorter settings**.

G This button opens the *Sort settings* window, where you select the mode, add or subtract hogs from the herd, set pen sizes, and edit sort settings.

H These are the alarm settings. To change the settings, click **Edit alarm settings**.

I This button starts the *Alarm settings* window, where you set the no activity and stuck animal alarms.

J This button opens the Sort Summary Viewer, where you can view all sorters and their market sorting status.

K This button recalculates the FCO values for all sorters in FCO mode.

Base weight

The base weight helps determine if a hog is on the scale. If the weight reading is heavier than the base weight, the scale head assumes there is a hog on the scale and starts the sorting process. If the weight reading is lighter than the base weight, the scale head ignores the reading.

The base weight is calculated automatically based on the lowest weight group' s value and cannot be changed.

Setting alarms

Select Sort checks the AutoSort Connect controls for alarms every 5 minutes. Alarm messages display in the Communication Center.

If there is an alarm, you must clear it at the AutoSort Connect; you cannot clear alarms in Select Sort. If there is a siren or alarm system connected to the control, the alarm sounds only while the problem (alarm condition) exists. The alarm siren switches off when the alarm condition goes away.

No activity

A no activity alarm occurs when there has been no weight reading above the base weight for longer than the alarm setting. For example, if the duration is set to two hours and there has not been a weight record above the base weight for over two hours, there is a no activity alarm.
Default: 4 hours; *Range*: 20 minutes to 4 hours

Stuck animal

A stuck animal alarm occurs when there has been a constant weight reading above the base weight for longer than the alarm setting. For example, if the duration is set to 30 minutes and there has been a constant weight reading above the base weight for over 30 minutes, there is an alarm.
Default: 20 minutes; *Range*: 20 minutes to 4 hours

Communication *alarms*

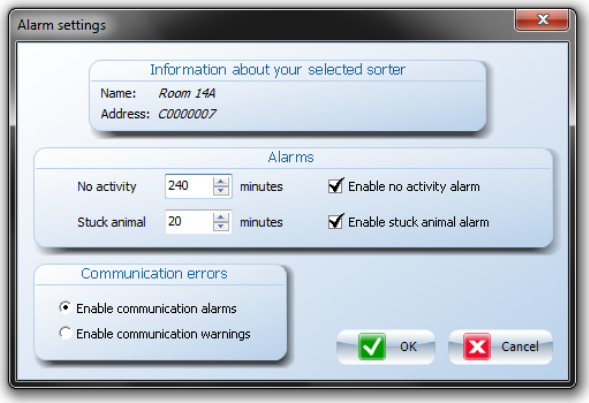
When you enable communication alarms and there is a communication error, OMNI Select displays a red "X" in the Communication Center. If you have **Select Alert**, the program dials out.

Communication *warnings*

When you enable communication warnings and there is a communication error, OMNI Select displays a yellow "!" in the Communication Center. If you have **Select Alert**, the program *does not* dial out.

To set alarms

1. In the main window, click **Settings**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to modify.
   The alarm settings for the selected sorter display in the bottom-right of the window.
3. Click **Edit alarm settings**.
   The *Alarm settings* window displays.



4. Change the alarm settings.
   - To enable an alarm, select *Enable* beside that alarm. To disable the alarm, deselect and remove the check mark.
   - To change the duration, click **Up** or **Down** beside the alarm you want to change.
5. Click **Close** to save the changes and return to the *Sort settings* window.
6. Click **Close** to return to the main window.

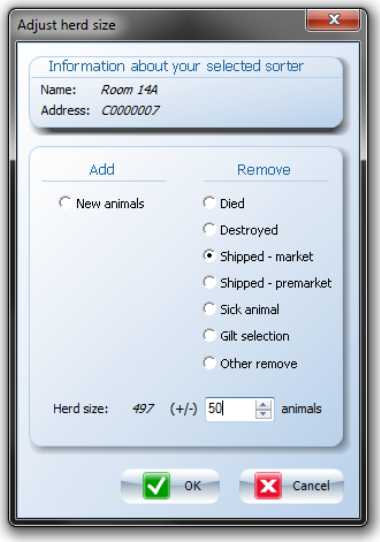
Tracking herd size

The herd tracker allows you to manually track of the number of hogs in each sorter area (room, pen, or barn). As hogs come into the area (new hogs) or move out of the area (ship, dead, or cull) update the total number of hogs.

- ◇ Select Sort uses the herd size in many features and reports, including the **Herd size report**. *Keep your herd information current and accurate* or reports and features will use incorrect information.
- ◇ You can adjust the herd size in Select Sort or at the control. When you adjust the herd size at the scale head, the change does not show in Select Sort until the next download. If you adjust the herd size at the scale head, do not adjust it in Select Sort or you will double the adjustment.

To edit the herd size

1. In the main window, click **Settings**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to modify.
3. Click **Edit sorter settings**.
   The *Sort settings* window displays.
4. Click **Adjust herd size**.
   The *Adjust herd size* window displays.



5. Select the reason for adding or removing the hogs.
6. Beside *Herd size*, click **Up** or **Down** to adjust the number of hogs you are adding or removing. You can also select the number and then type a new number.

> If you are adding or removing many hogs, you might find it easier to press and hold the UP or DOWN key on your keyboard.

7. Click **OK** to save the changes and return to the main window.

Setting pen capacities and hold backs

Select Sort uses the pen capacities and hold backs to calculate the possibility of overcrowding in any of the pens. If there is a possibility of overcrowding, a warning displays in the Auto-Sort Settings window. Overcrowding warnings are not available for other sort modes.

Pen capacity

Pen capacity is the maximum number of hogs a pen can hold before being overcrowded. Set pen capacities for full-sized hogs so that overcrowding does not occur when the hogs are fully grown.

You cannot adjust the pen capacity when there is a checkmark in the *No Capacity* box.

Held back

Held back is the number of hogs that are already in a pen. Select Sort uses the following formula when checking for overcrowding: Pen capacity – held back hogs = space available.

For example, you have a shipping pen with a capacity of 100 hogs. Yesterday you market sorted 75 hogs into the pen. This morning you shipped 50 hogs. There are currently 25 hogs "held back" in the pen.

No capacity (circular sorting)

If hogs can go through the sorter into a pen and then back out again to a main area, the pen has no capacity. When "no capacity" is enabled, the overcrowding warnings are *not enabled* for that pen. In addition, held back hogs no longer apply because the hogs are not restricted to a single pen and can go through the sorter many times.

To set pen capacities and hold backs

1. In the main window, click **Settings**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to modify.
3. Click **Edit sorter settings**.
   The *Sort settings* window displays.
4. Change the pen settings. You must remove the *No Capacity* checkmark before you can adjust the pen capacity or hold back for a pen.
   - To adjust the pen capacity, click **Up** or **Down** below *Capacity* beside the pen you want to change.
   - To adjust the held back amount, click **Up** or **Down** below *Held Back* beside the pen you want to change.
5. Click **Close** to save the changes and return to the main window.

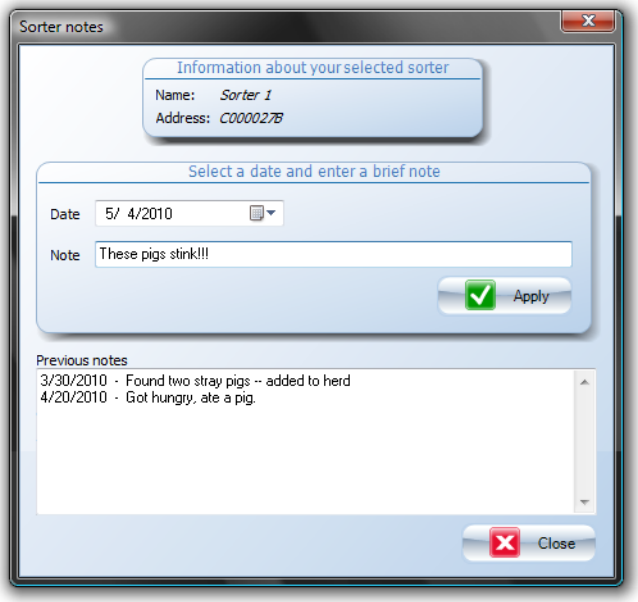
Adding notes

You can add short notes that will appear on Weight Variance and Herd Size reports. For example, if you remove to hogs from the herd, you can add a note that says, *Found two dead hogs*. When you create a Weight Variance or Herd Size report for a sorter, the note will display in the report.

You can add notes in the *Settings* window, or in the *Reports* window when creating the Weight Variance Report. For information about creating reports, read **Creating reports** on page 55.

To add a note

1. Click **Add note**.
   The *Sorter notes* window displays.



2. Beside *Date*, select a date for the note.
3. Beside *Note*, type the note.
4. Click **Apply**.
5. Click **Close** to return to the previous window.

Selecting the sort mode

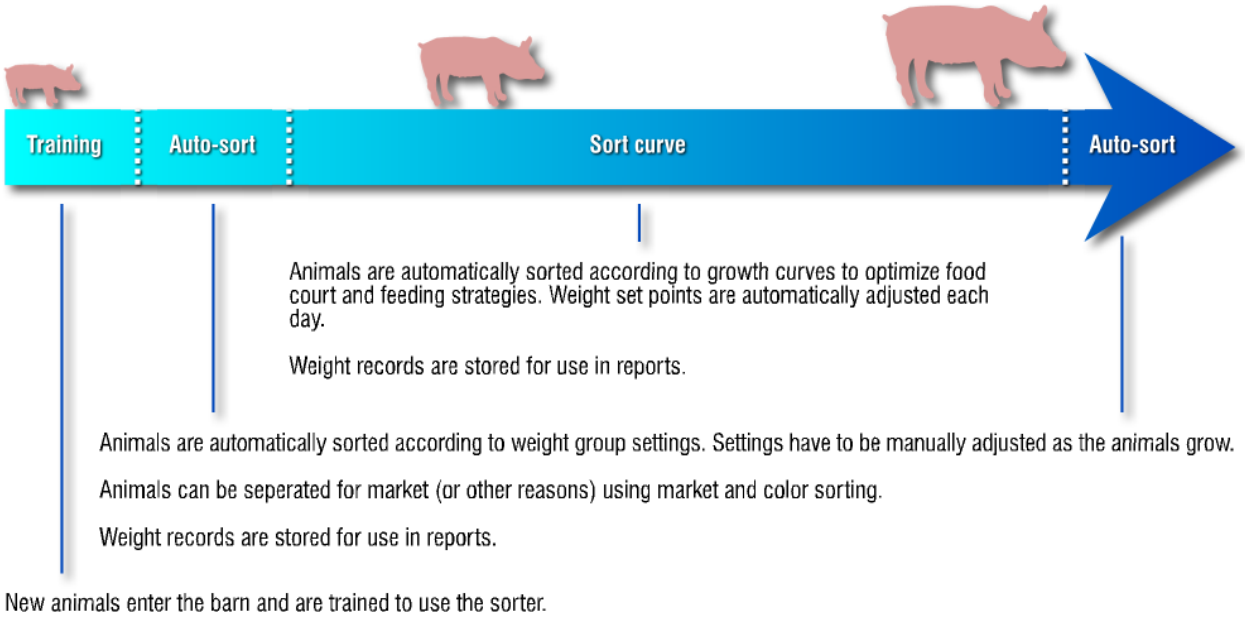
There are six modes of operation in Select Sort. The table below explains the uses of each mode. More-detailed information about each mode is available later in the manual.

	Mode of operation	Description and uses
Sorting modes	Training	◇ Is for getting new hogs used to moving through the sorter ◇ Bypasses the weighing and sorting process ◇ Does not store weight records ◇ For more information, read **Using Training mode** on page 28.
	Auto-Sort	◇ Is the AutoSort Connect's normal mode of operation ◇ Can have between two and seven weight groups ◇ Uses adjustable weight group settings to direct and/or paint a sorted hog ◇ Can use market sorting to separate any number of hogs by weight range ◇ Can use color detection ◇ Stores weight records for use in reports ◇ For more information, read **Using Auto-Sort mode** on page 29.
	FCO	◇ Uses two or three-way splitting percentages ◇ Allows you to calculate new set points based on up to the previous five days of data. ◇ Can use market sorting to separate any number of hogs by weight range ◇ Can use color detection ◇ Stores weight records for use in reports ◇ For more information, read **Using FCO mode** on page 33.
	Sort curve	◇ Uses industry-leading growth curves to optimize food courts and feeding strategies ◇ Uses two or three groups; for example, left, straight, and right ◇ Automatically adjusts weight set points each day ◇ Allows you to easily determine how far you are from your target performance ◇ Cannot use market sorting ◇ Can use color detection ◇ Stores weight records for use in reports ◇ For more information, read **Using Sort Curve mode** on page 36.
Troubleshooting mode	Manual control	◇ Is for testing equipment and installation only ◇ Does not store weight records ◇ For more information, read **Using the Manual Control Viewer** on page 38.

The following diagrams show two different options for sort modes as the hogs arrive, grow, and ship out.

Timeline 1: Training and AutoSort modes

Timeline 2: Training, AutoSort, and Sort Curve modes



To select the sort mode

1. In the main window, click **Settings**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to modify.
3. Click **Edit sorter settings**.
   The *Sort settings* window displays.

4. Beside *Current mode*, select the mode you want to use.
   A confirmation window displays.
5. To change the mode, click **Yes**. To cancel and remain in the current mode, click **No**.
   The settings for the selected mode display.

The modes available in this menu are *Auto-Sort*, *Sort Curve*, *Training,* and *FCO*. If you are looking for *Manual Mode*, return to the main window and then click **View sorter**.

If you want to change the settings for the selected mode, click **Edit Settings**. For more information, read:

- **Using Auto-Sort mode** on page 29
- **Using FCO mode** on page 33
- **Using Sort Curve mode** on page 36
- **Using Training mode** below

6. Click **Close** to return to the main window.

Using Training mode

Training mode is the first mode you use when new hogs arrive. Training mode allows new hogs to get used to moving through the sorter without the weighing and sorting process.

When Training mode is enabled, the headgate and tailgate remain open. This allows the hogs to pass freely through the sorter without having to wait for gates to open and close and to be weighed.

AutoSort Connect automatically changes the exit direction during the training period. You can set the amount of time the scale head waits before changing to the next direction in the configuration window. For more information, read **Training mode operation** on page 16.

For example, in three-way sorting:

1. At the start of Training mode, the gates change positions and the hogs exit to the left.
2. At the next change time, the gates change positions and the hogs exit to the right.
3. Next, the gates change positions and the hogs exit straight ahead.
4. Finally, the gates change back to the left and the process repeats.

Using Auto-Sort mode

Auto-Sort mode is AutoSort Connect's default mode of operation. Auto-Sort mode stores weight records for use in reports and is useful for when you want to separate a certain number of hogs by weight using market sorting and color detection. For more information about when to use Auto-Sort mode, see the timelines on page 27.

In Auto-Sort mode, each sorter can have seven weight groups. The settings for each weight group determine how the sorter will direct and/or paint a sorted hog. Unlike Sort Curve mode (see page 36), Auto-Sort mode does not automatically adjust settings as the hogs grow; you must manually adjust them.

Normal, market, and color sorting categories

In Auto-Sort mode, there are three categories of sorting actions. In order of priority, they are *market*, *color*, and *normal*.

For example, if color, market, and normal sorting are active:

1. The system checks to see if the hog falls within the market category; if it does, it sorts the hog according to the settings.
2. If the hog does not fall within the market category, the system checks to see if it falls within the color category; if it does, it sorts the hog according to the settings.
3. If the hog does not fall within the color category, the system sorts the hog according to the normal settings.

- **Normal sorting** is what you will use most of the time you are in Auto-Sort.
- **Market sorting** allows you to separate a certain number of hogs for shipping to market or other reasons. Market sorting takes priority over normal and color sorting and allows you to sort out "special-case hogs".

  Market sorting has several options.

  - **Normal market sorting** lets you set a sort limit and sort a specified number of hogs within a weight range to a closed-off pen. Normal market sorting does not use color detection.
  - **Dynamic market sorting** is the same as normal market sorting, but automatically expands the weight range if no hogs have been sorted for a specific amount of time. Dynamic market sorting is useful for when you run out of hogs in the "ideal" weight range.
  - **Market sorting with color detection** is the same as normal or dynamic market sorting, but sorts only painted hogs that are within the weight range. The sort limit is optional when using color detection with market sorting.
- **Color sorting** (without market sorting) sorts all painted hogs in a specific direction.

Color sorting requires the optional **CD-1 Color Detector**. For more information, contact your dealer.

Normal sort settings

- **Minimum weight** is the weight of the lightest hog that can be sorted into the weight group. The minimum weight for group 1 cannot be lower than 20 pounds or 9 kilograms.
- **Sort direction** is the direction hogs that are within the weight group will be sorted.
- **Painter** determines which painter (none, 1, 2, or both) the sorter uses when sorting the hogs that are within the weight group.

Market sorting

- **Sort limit** is the target or maximum number of hogs to be sorted using market sorting. When the sort limit has been reached, all other hogs will be sorted using normal sorting.

  When using a sort limit, each time a hog within the weight range passes through the sorter, the count increases by one until the sort limit has been reached and no more hogs are required.

  Sort limits are optional when using color detection with market sorting.
- **Weight range** is the minimum and maximum weights that should be market sorted.
- **Sort direction** is the direction the sorter uses when market sorting.
- **Painter** determines which painter the sorter uses when market sorting.

Dynamic market sorting

Dynamic market sorting automatically expands the weight range of market sorting if no hogs have been sorted for a specific amount of time. For dynamic sorting, you set an expanded weight range, an increment amount (in other words, the amount to expand the weight range), and a duration.

Dynamic sorting is useful for when you run out of hogs in the "ideal" weight range. When dynamic sorting is active, Select Sort expands the market range and selects the "next best" hogs. Select Sort stops expanding the range once the sort limit has been met, or the weight range has been expanded as far as you have specified.

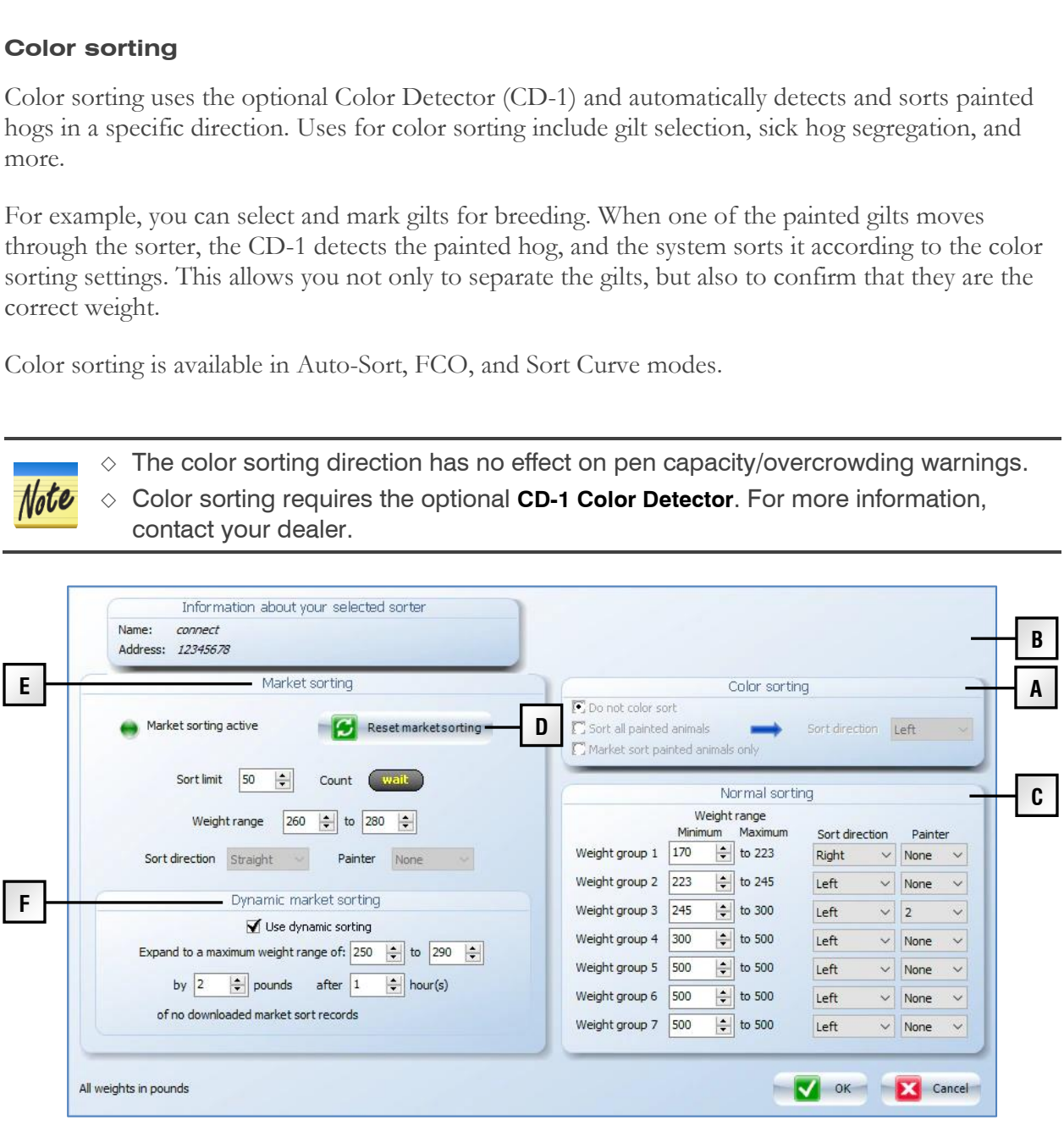
- ◇ Clicking the **Reset market sorting** button stops market sorting and resets the sort limit and count to 0.
- ◇ After you have started market sorting, you cannot change the market sort actions. If you want to change the actions, you must reset market sorting and then start again.

Color sorting

Color sorting uses the optional Color Detector (CD-1) and automatically detects and sorts painted hogs in a specific direction. Uses for color sorting include gilt selection, sick hog segregation, and more.

For example, you can select and mark gilts for breeding. When one of the painted gilts moves through the sorter, the CD-1 detects the painted hog, and the system sorts it according to the color sorting settings. This allows you not only to separate the gilts, but also to confirm that they are the correct weight.

Color sorting is available in Auto-Sort, FCO, and Sort Curve modes.



A This is where you set color sorting options.

B This area displays any overcrowding warnings.

C This is where you set normal sort settings and actions. You can change the weight ranges by clicking **Up** or **Down** beside the group you want to change. You can change the actions by clicking the current setting and then selecting a new one.

D This button stops market sorting and clears the sort limit and count.

E This is where you set market sort settings and actions. You can change the weight range or sort limit by clicking **Up** or **Down** beside the item you want to change. You can change the actions by clicking the current setting and then selecting a new one.

- If the sort limit is 0, the settings and actions are unavailable.
- If market sorting has already started, the weight range settings are available but the actions are not.
- If dynamic market sorting is active, the weight range settings will show the current dynamic range, not the initial settings.

F This is where you set dynamic market settings. You can change the settings by clicking **Up** or **Down** beside the item you want to change.

- The dynamic option is unavailable if the sort limit is zero.
- The dynamic settings are available only if there is a checkmark in the box.
- Dynamic market sorting is an extension of the market action.

To edit Auto-Sort settings

1. In the main window, click **Settings**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to modify.
3. Click **Edit sorter settings**.
   The *Sort settings* window displays. Settings for the current mode are shown in the bottom half of the window. If Auto-Sort is not the current mode, select *Auto-Sort* from the *Current mode* list.
4. Click **Edit settings**.
   The *Auto-Sort settings* window displays.
5. Change the settings.

   Normal sort settings

   - To change the minimum weight, below *Normal sorting*, click **Up** or **Down** beside the weight group you want to change.
   - To change the sort direction, below *Normal sorting*, select *Left*, *Right*, or *Straight*.
   - To change the painter operation, below *Normal sorting*, select *None*, *1*, *2*, or *Both*.

   Market sort settings

   - To reset market sorting, click **Reset market sorting**.
   - To change the sort limit, below *Sort limit*, click **Up** or **Down**.
   - To change the weight range, below *Weight range*, click **Up** or **Down** for either the minimum weight (left side) or maximum weight (right side).
   - To change the sort direction, below *Market sorting/Sort direction*, select *Left*, *Right*, or *Straight*.
   - To change the painter operation, below *Market sorting/Painter*, select *None*, *1*, *2*, or *Both*.

Dynamic sort settings

- To enable or disable dynamic market sorting, select or deselect *Use dynamic market sorting*.
- To change the dynamic weight range settings, click **Up** or **Down** beside the item you want to change.

Color sort settings

- To use color detection with market sorting, below *Color sorting*, select *Market sort painted animals only*.
  Market sorting will now sort only painted hogs.
- To enable color sorting, select *Sort all painted animals*.

  To change the color sort direction, below *Color sorting/Sort direction*, select *Left*, *Right*, or *Straight*.
- To disable color sorting, select *Do not color sort*.

6. Click **Close** to save the changes and return to the *Sort settings* window.
7. Click **Close** to return to the main window.

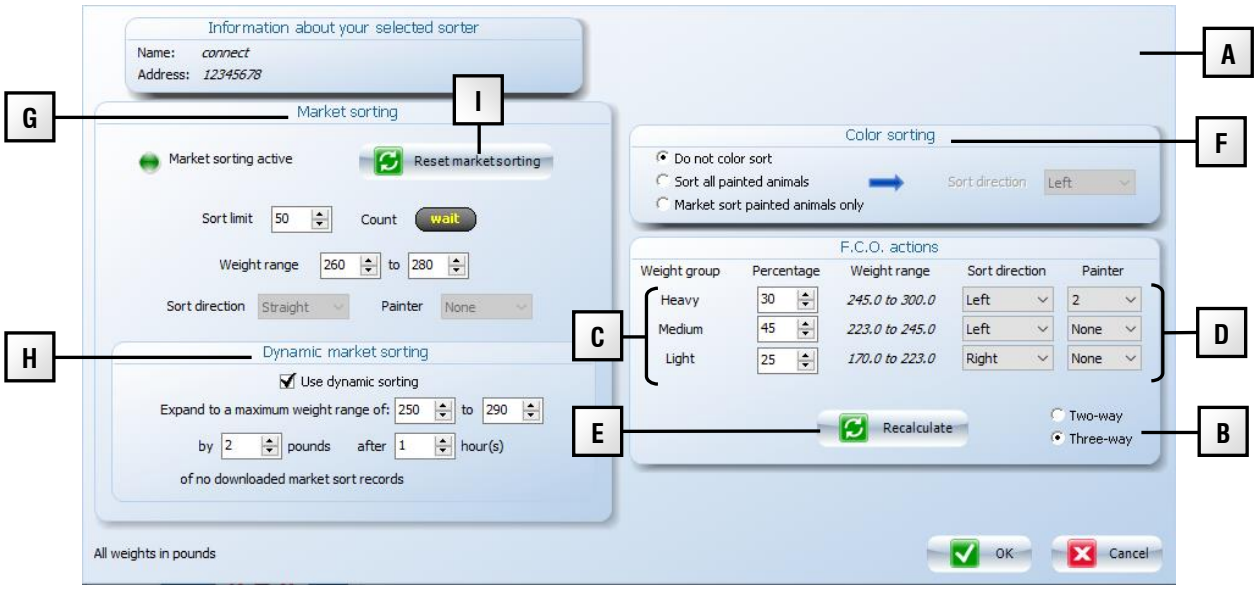
As you edit the settings, Select Sort checks for the possibility of overcrowding based on the herd size, pen capacities, hold backs, and settings. For more information, read **Setting pen capacities and hold backs** on page 23.

Using FCO mode

FCO mode helps optimize food court space by using programmable two or three-way splitting percentages to keep food courts from being overcrowded or underused.

As with Auto-Sort and Sort Curve modes, FCO mode allows you to set the sort direction and the paint options. The difference with FCO mode is that it uses splitting percentages (light, medium, and heavy) when calculating sorting weights. A button on the FCO settings window allows you to calculate set points based on up to the previous five days of data.

- ◇ You need a *minimum* of 100 records from the previous day before you can calculate set points in FCO mode.
- ◇ You can calculate new weight ranges *only once per day* unless you change the percentages.
- ◇ As with Auto-Sort mode, you can use market, color, and normal categories. For descriptions of **market** and **color sorting**, read **Using Auto-Sort mode** on page 29.



A This area displays any overcrowding warnings.

B This is where you select two or three-way percentages.

C This is where you set the splitting percentages. You can change the settings by clicking **Up** or **Down** beside the item you want to change.

D This is where you set sort actions. You can change the actions by clicking the current setting and then selecting a new one.

E This button recalculates the splitting percentages.

F This is where you set color sorting options.

G This is where you set market sort settings and actions. You can change the weight range or sort limit by clicking **Up** or **Down** beside the item you want to change. You can change the actions by clicking the current setting and then selecting a new one.

- If the sort limit is 0, the settings and actions are unavailable.
- If market sorting has already started, the weight range settings are available but the actions are not.
- If dynamic market sorting is active, the weight range settings will show the current dynamic range, not the initial settings.

H This is where you set dynamic market settings. You can change the settings by clicking **Up** or **Down** beside the item you want to change.

- The dynamic option is unavailable if the sort limit is zero.
- The dynamic settings are available only if there is a checkmark in the box.
- Dynamic market sorting is an extension of the market action.

I This button stops market sorting and clears the sort limit and count.

To edit FCO settings

1. In the main window, click **Settings**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to modify.
3. Click **Edit sorter settings**.
   The *Sort settings* window displays. Settings for the current mode are shown in the bottom half of the window. If FCO is not the current mode, select *FCO* from the *Current mode* list.
4. Click **Edit settings**.
   The *FCO settings* window displays.
5. Change the settings.

   FCO settings

   - To change between two and three-way splitting percentages, select the method you want.
   - To adjust your splitting percentages, click **Up** or **Down** beside the item you want to change.
   - To change the sort direction, below *Sort direction*, select *Left*, *Right*, or *Straight*.
   - To change the painter operation, below *Painter*, select *None*, *1*, *2*, or *Both*.
   - To recalculate your set points, click **Recalculate**.

   Color sort settings

   - To enable color sorting, select *Sort all painted animals*.
   - To disable color sorting, select *Do not color sort*.
   - To change the color sort direction, below *Color sorting/Sort direction*, select *Left*, *Right*, or *Straight*.

   Market sort settings

   - To reset market sorting, click **Reset market sorting**.
   - To change the sort limit, below *Sort limit*, click **Up** or **Down**.
   - To change the weight range, below *Weight range*, click **Up** or **Down** for either the minimum weight (left side) or maximum weight (right side).
   - To change the sort direction, below *Market sorting/Sort direction*, select *Left*, *Right*, or *Straight*.
   - To change the painter operation, below *Market sorting/Painter*, select *None*, *1*, *2*, or *Both*.

   Dynamic sort settings

   - To enable or disable dynamic market sorting, select or deselect *Use dynamic market sorting*.
   - To change the dynamic weight range settings, click **Up** or **Down** beside the item you want to change.

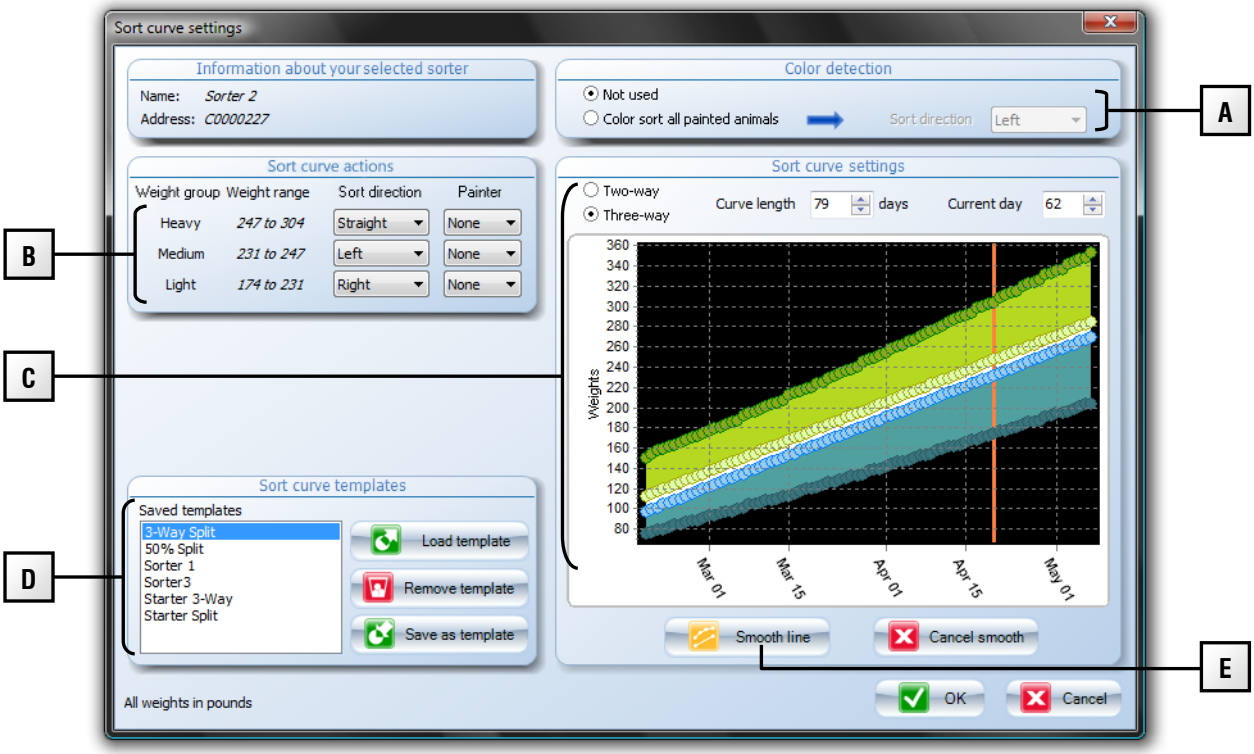
6. Click **Close** to save the changes and return to the *Sort settings* window.
7. Click **Close** to return to the main window.

Using Sort Curve mode

Sort curve mode uses industry-leading growth curves that can help you optimize food courts and feeding strategies. Select a predefined curve or adapt one to your herd growth model and management style. Each day at midnight, Select Sort adjusts the sorting weights for the coming day. For more information about when to use Sort Curve mode, see the timelines on page 27.

With Sort Curves, you can easily determine how far you are from your target performance. Deviation from the curve can indicate performance issues, which you can address immediately. As with Auto-Sort and FCO modes, Sort Curve mode allows you to set the sort direction and painter option.

Color sorting is available in Sort Curve mode; market sorting is not available. For more information about color or market sorting, read **Normal, market, and color sorting** starting on page 29.



A This is where you set color sorting options.

B This is where you set Sort Curve actions. You can change the actions by clicking the current setting and then selecting a new one.

C This is where you set Sort Curve settings. You can change the curve length or current day by clicking **Up** or **Down** beside the item you want to change. You can change individual set points by clicking on a point and then clicking **Up** or **Down**.

D This is where you can manage your Sort Curve templates.

E This button allows you to smooth a line between two curve points.

To edit Sort Curve settings

1. In the main window, click **Settings**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to modify.
3. Click **Edit sorter settings**.
   The *Sort settings* window displays. Settings for the current mode are shown in the bottom half of the window. If Auto-Sort is not the current mode, select *Auto-Sort* from the *Current mode* list.
4. Click **Edit settings**.
   The *Sort curve settings* window displays.
5. Change the settings.

   Sort curve templates

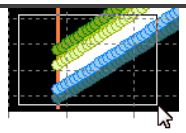
   - To use an existing curve (a template), below *Sort curve templates*, select the template you want to use and then click **Load template**. Select Sort updates the setting information.
   - To save a curve, click **Save as template**. When the *Save curve as a template* window displays, type a name for the template and then click **OK**.
   - To remove an existing curve, below *Sort curve templates*, select the template you want to remove and then click **Load template**. When the *Confirm* window displays, click **Yes**.

   Sort curve actions

   - To change the sort direction, below *Sort direction*, select *Left*, *Right*, or *Straight*.
   - To change the painter operation, below *Painter*, select *None*, *1*, *2*, or *Both*.

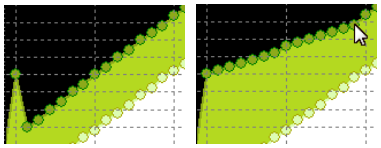
   Sort curve settings

   - To change the curve length, beside *Curve length*, click **Up** or **Down**.
   - To change the current day, beside *Current day*, click **Up** or **Down**.
   - To change the weight for a point/day, click the point on the chart, and then click **Up** or **Down**.



You can zoom in, zoom out, and scroll along the Sort Curve chart.

- ◇ **To zoom in**, click and drag to select the area you want to magnify and then release the mouse button. A chart magnifies the area you selected.
- ◇ **To zoom out**, click on the chart, drag to the top-left and then release the mouse button. The chart returns to normal magnification.
- ◇ **To scroll along**, right-click the chart and drag the mouse in the direction you want the chart to move.
- ◇ You can smooth a line between two points. Smoothing a line adjusts all points between the first and second point you select so that they are in a straight line.



- ◇ **To smooth a line**, click **Smooth line** and then follow the instructions on the screen.

Color sort settings

- To enable color sorting, select *Sort all painted animals*.
- To change the color sort direction, below *Color sorting/Sort direction*, select *Left*, *Right*, or *Straight*.
- To disable color sorting, select *Do not color sort*.

6. Click **Close** to save the changes and return to the *Sort settings* window.
7. Click **Close** to return to the main window.

Viewing sorters

Select Sort has two viewers, the Manual Control Viewer and the Sort Summary Viewer.

Using the Manual Control Viewer

The Manual Control Viewer allows you to view the status of a sorter and temporarily override the sort settings using manual mode. Manual mode is useful for when you are cleaning a room, performing maintenance, or testing equipment. Using manual mode, you can open or close gates and operate the painters.

Here are some tips for using the Manual Control Viewer.

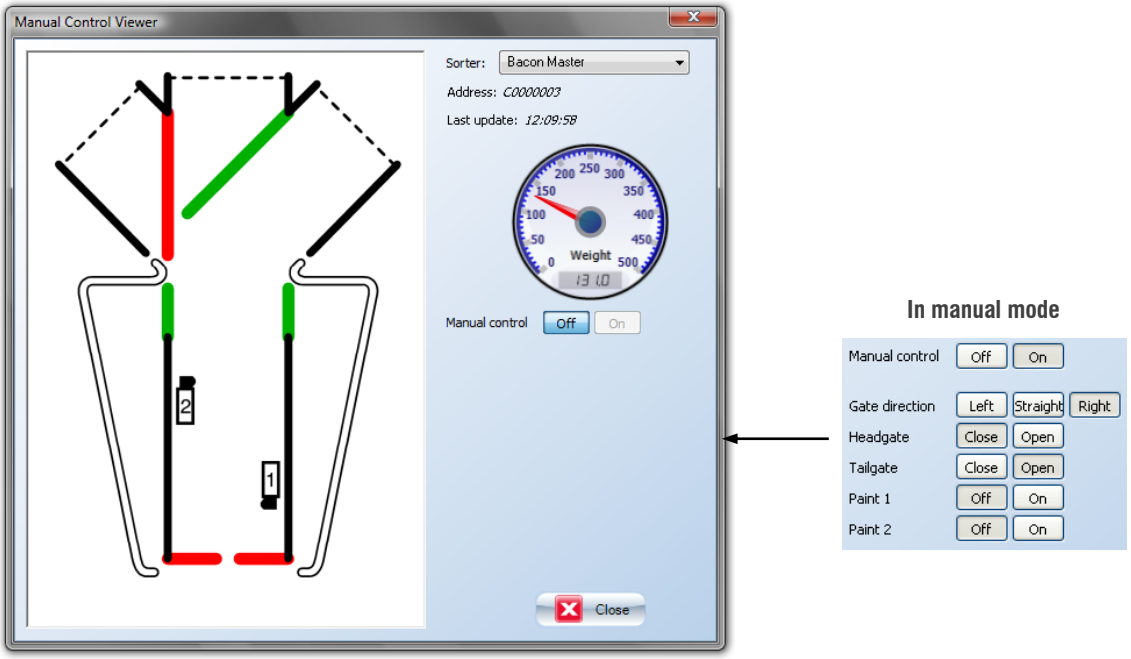
- The viewer updates once every three seconds.
- The painters shut off automatically after three seconds.
- The sorter stays in manual control mode until you close the viewer. Make sure you close the viewer when you are done controlling or viewing sorters.

- If you leave the viewer open and do not do anything for 10 minutes, the viewer closes automatically and the scale returns to normal operation.

- ◇ When the scale returns to normal operation, the gates can change position unexpectedly.
- ◇ If you need to put a scale in manual mode to do maintenance, put it into manual mode **at the control**, not in the software.

To use the Manual Control Viewer

1. In the main window, click **Settings**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to view.
   The Manual Control Viewer displays. The screen automatically updates, allowing you to view what is happening at the sorter.



- To change sorters, beside *Sorter*, select the sorter you want to view.
- To enter manual control mode, click **On**.
  - To change the exit gate positions, beside *Gate direction*, click **Left**, **Right**, or **Straight**.
  - To change the headgate position, beside *Headgate*, click **Open** or **Close**.
  - To change the tailgate position, beside *Tailgate*, click **Open** or **Close**.
  - To operate the painters, beside *Paint 1* or *Paint 2*, click **On** or **Off**.
  - To exit manual control mode, beside *Manual control*, click **Off**.

3. Click **Close** to return to the previous window.

You can also open the Manual Control Viewer from the *Reports* window.

Using the Sort Summary Viewer

The Sort Summary Viewer displays information about all sorters and their current market sort status.

A This is a sorter-by-sorter summary. The summary shows the current mode and a breakdown of the market sorting for each sorter.

B This is the market sort summary for all sorters.

To use the Sort Summary Viewer

1. In the main window, click **Settings**, and then **Sorters**.
2. Below *Your sorters*, select the sorter you want to modify.
   The Sort Summary Viewer displays.
3. Click **Close** to return to the previous window.

You can also open the Sort Summary Viewer from the *Reports* window.

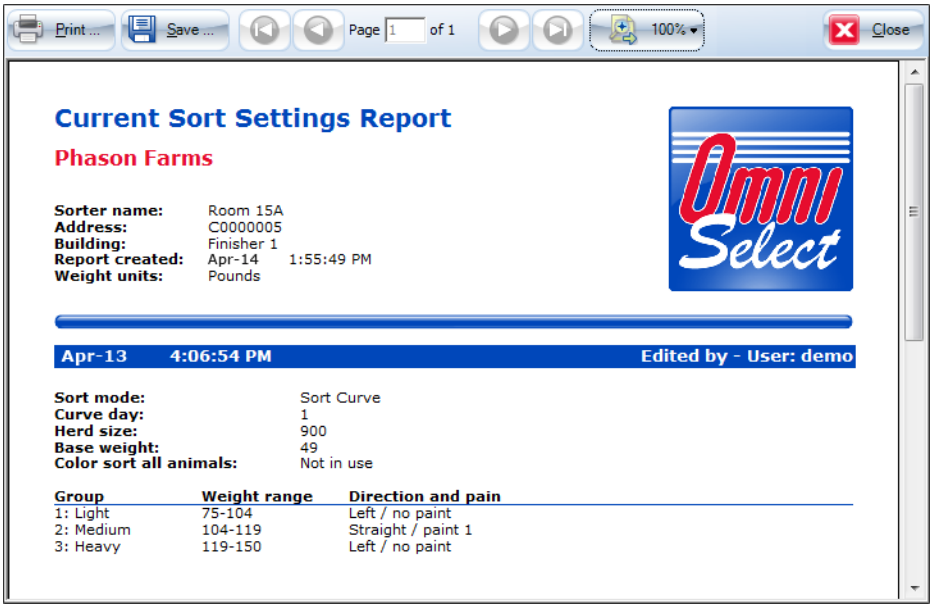
Chapter 4

Select Sort reports

One of the great advantages of Select Sort is the extensive reports that are available. OMNI Select reports are available in Print/preview or CSV format.

Preview/PDF

You can view these reports using OMNI Select's built-in Report Preview window. From there, you can print or save reports as a PDF.



CSV

You can import CSV reports into a third-party reporting, database, or spreadsheet program, or e-mail them off-site for evaluation. CSV reports are not suitable for normal viewing.

Report descriptions

- Settings Report (page 42)
- Configuration Report (page 43)
- Standard Weight Variance Report (page 44)
- Directional Weight Variance Report (page 46)
- Time of Day Report (page 47)
- Grid Weight Report (page 47)
- Daily Summary Report (page 48)
- Weight Distribution Report (page 49)
- Basic Daily Report (page 50)
- Detailed Daily Report (page 51)
- Weight Records (page 52)
- Market Sorting Report (page 53)
- Herd Size Report (page 54)
- Market Forecaster Report (page 59)

Settings Report

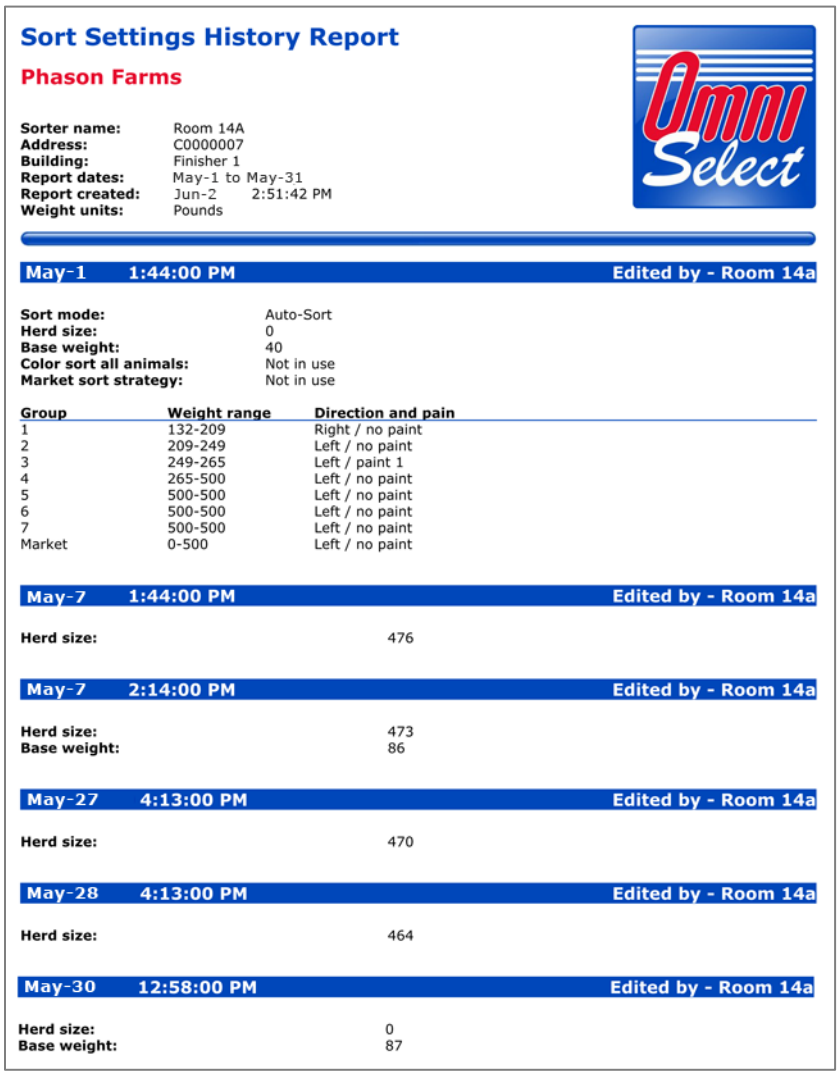
The Settings Report lists the settings for the selected sorter, sorted by date and time. For each settings change, the report notes the mode, the time, and the user who made the change.

- If the change was made by a user, the report shows *Edited by - [Username]*
- If the change was made by a user at the scale head, the report shows *Edited by - Scale*. Only herd size may be edited at the scale head.
- If the change was made by the system, such as an automatic change for Sort Curves, the report shows *Edited by - System*.

Three types of settings reports

- **Current** – lists the current settings.
- **Historical (all)** – lists the settings for a date range. For each change that was made, the report shows a complete list of settings. The following example is this format.
- **Historical (changes only)** – lists the settings for the date range. For each change that was made, the report shows only the settings that changed.

The following example is a Settings History Report Showing changes only.



Sort Settings History Report

Phason Farms

Sorter name: Room 14A
Address: C0000007
Building: Finisher 1
Report dates: May-1 to May-31
Report created: Jun-2 2:51:42 PM
Weight units: Pounds

May-1 1:44:00 PM **Edited by - Room 14a**

Sort mode: Auto-Sort
Herd size: 0
Base weight: 40
Color sort all animals: Not in use
Market sort strategy: Not in use

Group	Weight range	Direction and pain
1	132-209	Right / no paint
2	209-249	Left / no paint
3	249-265	Left / paint 1
4	265-500	Left / no paint
5	500-500	Left / no paint
6	500-500	Left / no paint
7	500-500	Left / no paint
Market	0-500	Left / no paint

May-7 1:44:00 PM **Edited by - Room 14a**

Herd size: 476

May-7 2:14:00 PM **Edited by - Room 14a**

Herd size: 473
Base weight: 86

May-27 4:13:00 PM **Edited by - Room 14a**

Herd size: 470

May-28 4:13:00 PM **Edited by - Room 14a**

Herd size: 464

May-30 12:58:00 PM **Edited by - Room 14a**

Herd size: 0
Base weight: 87

Information about the report

The first settings period of the report displays the settings at the beginning of the date range, which are often from the previous day or earlier.

The settings changes, sorted by date and time

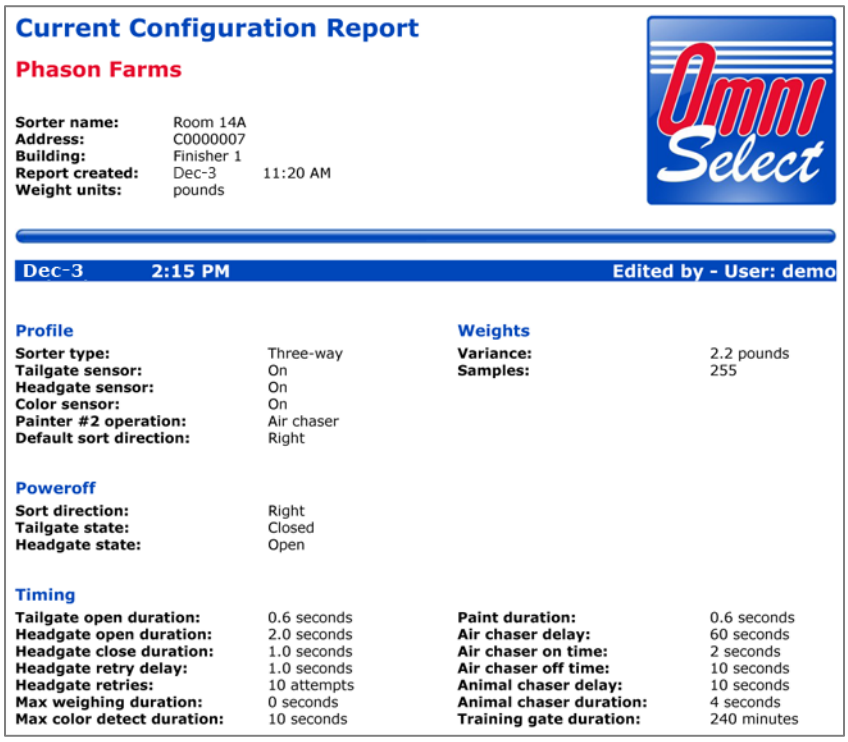
Configuration Report

The Configuration Report lists the configuration for the selected sorter, sorted by date and time. For each configuration change, the report notes the time and the user who made the change.

- If the change was made by a user, the report shows *Edited by - [username]*
- If the change was made by a user at the scale head, the report shows *Edited by - Scale*. Only poweroff configuration may be edited at the scale head.

There are three types of configuration reports:

- **Current** – lists the current configuration. The following example is in this format.
- **Historical (all)** – lists the configuration for a date range. For each change that was made, the report shows a complete list of configuration.
- **Historical (changes only)** – lists the configuration for the date range. For each change that was made, the report shows only the configuration that changed.



Current Configuration Report

Phason Farms

Sorter name:	Room 14A	
Address:	C0000007	
Building:	Finisher 1	
Report created:	Dec-3	11:20 AM
Weight units:	pounds	

Dec-3 2:15 PM **Edited by - User: demo**

Profile

Sorter type:	Three-way
Tailgate sensor:	On
Headgate sensor:	On
Color sensor:	On
Painter #2 operation:	Air chaser
Default sort direction:	Right

Weights

Variance:	2.2 pounds
Samples:	255

Poweroff

Sort direction:	Right
Tailgate state:	Closed
Headgate state:	Open

Timing

Tailgate open duration:	0.6 seconds	**Paint duration:**	0.6 seconds
Headgate open duration:	2.0 seconds	**Air chaser delay:**	60 seconds
Headgate close duration:	1.0 seconds	**Air chaser on time:**	2 seconds
Headgate retry delay:	1.0 seconds	**Air chaser off time:**	10 seconds
Headgate retries:	10 attempts	**Animal chaser delay:**	10 seconds
Max weighing duration:	0 seconds	**Animal chaser duration:**	4 seconds
Max color detect duration:	10 seconds	**Training gate duration:**	240 minutes

Information about the report

The profile, poweroff, timing, and weights configuration

In a historical version, the report displays a list of changes or a complete list of configuration for each period, sorted by date.

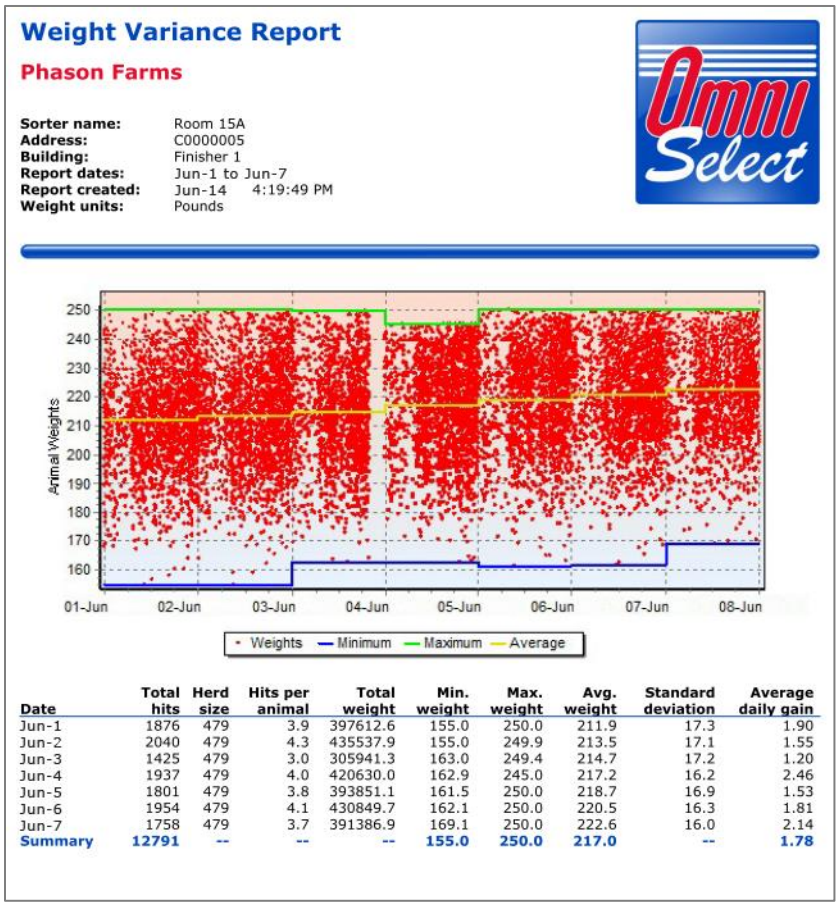
Standard Weight Variance Report

The Standard Weight Variance Report has a chart showing the weights for the date range, including the minimum, maximum, and average weights. The summary lists the number of weight readings, the total, minimum, maximum, and average weights, standard deviation, and average daily gain for each day of the report.

Average daily gain (ADG) is the increase in the average weight from one day to the next. ADG is a great indicator of how the herd is performing. The summary value for ADG depends on the average weights for the first and last days in the report. If the average for the first and/or last day is unreliable because of herd changes, improper use, or any other reason, the ADG summary will be unreliable.

Standard deviation is a statistic for measuring the variability of a set of numbers. Standard deviation can tell you how close the weights of a group of hogs are to the average. When the standard deviation is small, the weights are close to the average. When the standard deviation is large, the weights are spread out.

When you create a Weight Variance Report, you can add comments to the bottom section by clicking **Add Note**.



Weight Variance Report

Phason Farms

Sorter name: Room 15A
Address: C0000005
Building: Finisher 1
Report dates: Jun-1 to Jun-7
Report created: Jun-14 4:19:49 PM
Weight units: Pounds

Date	Total hits	Herd size	Hits per animal	Total weight	Min. weight	Max. weight	Avg. weight	Standard deviation	Average daily gain
Jun-1	1876	479	3.9	397612.6	155.0	250.0	211.9	17.3	1.90
Jun-2	2040	479	4.3	435537.9	155.0	249.9	213.5	17.1	1.55
Jun-3	1425	479	3.0	305941.3	163.0	249.4	214.7	17.2	1.20
Jun-4	1937	479	4.0	420630.0	162.9	245.0	217.2	16.2	2.46
Jun-5	1801	479	3.8	393851.1	161.5	250.0	218.7	16.9	1.53
Jun-6	1954	479	4.1	430849.7	162.1	250.0	220.5	16.3	1.81
Jun-7	1758	479	3.7	391386.9	169.1	250.0	222.6	16.0	2.14
Summary	**12791**	--	--	--	**155.0**	**250.0**	**217.0**	--	**1.78**

Information about the report

A chart showing the weights, including minimum, maximum, and average values

A daily and total summary of the report, sorted by date

Directional Weight Variance Report

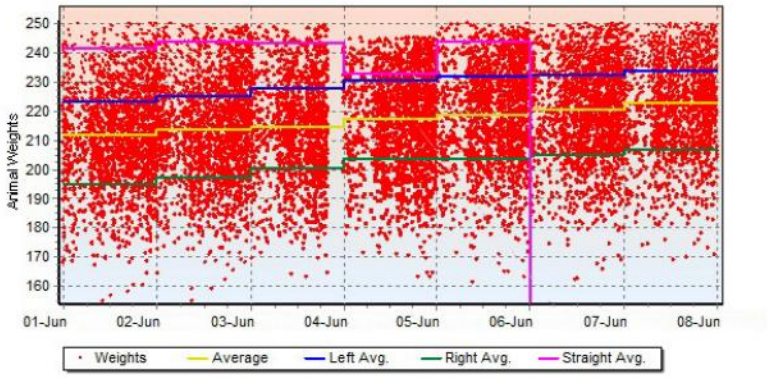
The Directional Weight Variance Report has a chart showing the weights for the date range, including the left, right, straight, and combined (total) averages. The tables list daily and total summaries for hits, weight, and average weight for each direction.

When you create a Weight Variance Report, you can add comments to the bottom section by clicking **Add Note**.

Directional Weight Variance Report

Phason Farms

Sorter name: Room 15A
Address: C0000005
Building: Finisher 1
Report dates: Jun-1 to Jun-7
Report created: Jun-14 4:33:25 PM
Weight units: Pounds



Left

Date	Total hits	Total weight	Average weight
Jun-1	1133	252738.8	223.1
Jun-2	1171	263561.5	225.1
Jun-3	731	166547.3	227.8
Jun-4	963	221846.3	230.4
Jun-5	942	218232.3	231.7
Jun-6	1111	257937.5	232.2
Jun-7	1029	240513.8	233.7
Summary	**7080**	**--**	**229.0**

Right

Date	Total hits	Total weight	Average weight
Jun-1	742	144632.3	194.9
Jun-2	860	169784.9	197.4
Jun-3	684	136963.3	200.2
Jun-4	960	195523.1	203.7
Jun-5	845	172207.7	203.8
Jun-6	843	172912.2	205.1
Jun-7	729	150873.1	207.0
Summary	**5663**	**--**	**201.8**

Straight

Date	Total hits	Total weight	Average weight
Jun-1	1	241.5	241.5
Jun-2	9	2191.5	243.5
Jun-3	10	2430.7	243.1
Jun-4	14	3260.6	232.9
Jun-5	14	3411.1	243.6
Jun-6	0	0.0	0.0
Jun-7	0	0.0	0.0
Summary	**48**	**--**	**240.3**

All Directions

Date	Total hits	Total weight	Average weight
Jun-1	1876	397612.6	211.9
Jun-2	2040	435537.9	213.5
Jun-3	1425	305941.3	214.7
Jun-4	1937	420630.0	217.2
Jun-5	1801	393851.1	218.7
Jun-6	1954	430849.7	220.5
Jun-7	1758	391386.9	222.6
Summary	**12791**	**--**	**217.0**

Directional Spacing

Date	Heavy direction	Medium direction	Light direction	Heavy AVG - Light AVG	Heavy AVG - Medium AVG	Medium AVG - Light AVG
Jun-1	Straight	Left	Right	46.6	18.4	28.1
Jun-2	Straight	Left	Right	46.1	18.4	27.6
Jun-3	Straight	Left	Right	42.8	15.2	27.6
Jun-4	Straight	Left	Right	29.2	2.5	26.7
Jun-5	Straight	Left	Right	39.9	12.0	27.9
Jun-6	Left	Right	Straight	232.2	27.1	205.1
Jun-7	Left	Right	Straight	233.7	26.8	207.0

Information about the report

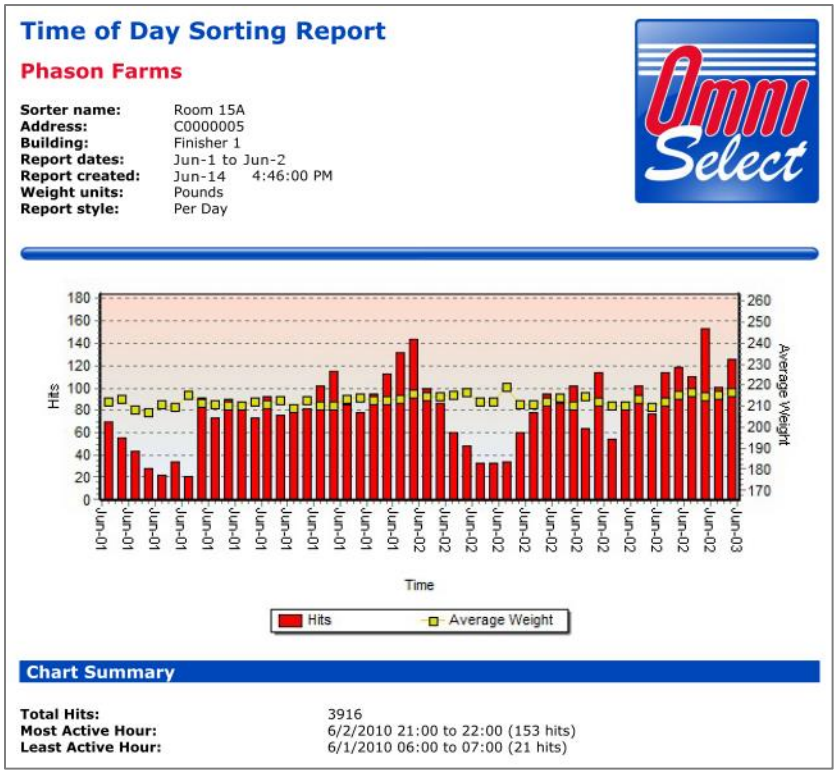
A chart showing the weights, including left, right, straight, and total average values

Daily and total directional summaries

Time of Day Report

The Time of Day Report is a chart showing how active or inactive your sorter is during each hour of the day. The report lists either the actual hits per hour (per-day report), or the average hits per hour (average of date range report).

If you are creating a Time of Day Report, you need to select if the report is "per day" or "average".



Information about the report

A chart showing the hits and average weight

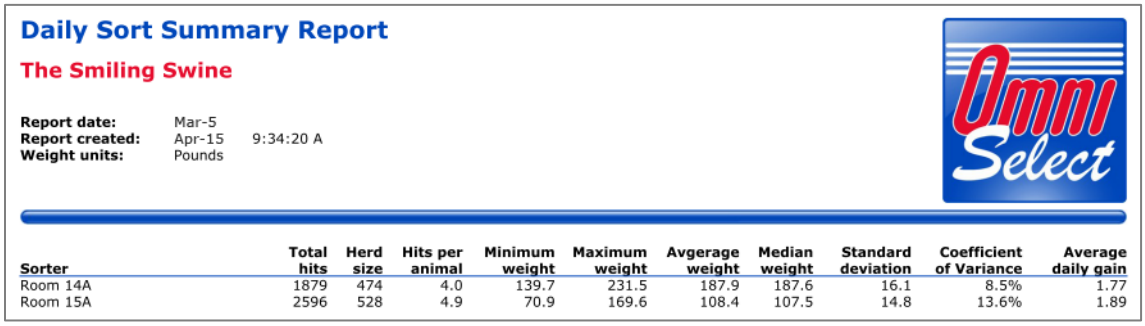
If the report is “per day”, the chart shows the actual hits.

If the report is “average of date range”, the chart shows the average hits per hour.

A basic summary of the data in the chart

Daily Summary Report

The Daily Summary Report is a summary for each sorter, including total weight readings (hits), minimum, maximum, average, and median weights, standard deviation, coefficient of variance, and average daily gain. At the bottom of the report is a total summary of all the sorters at the site.

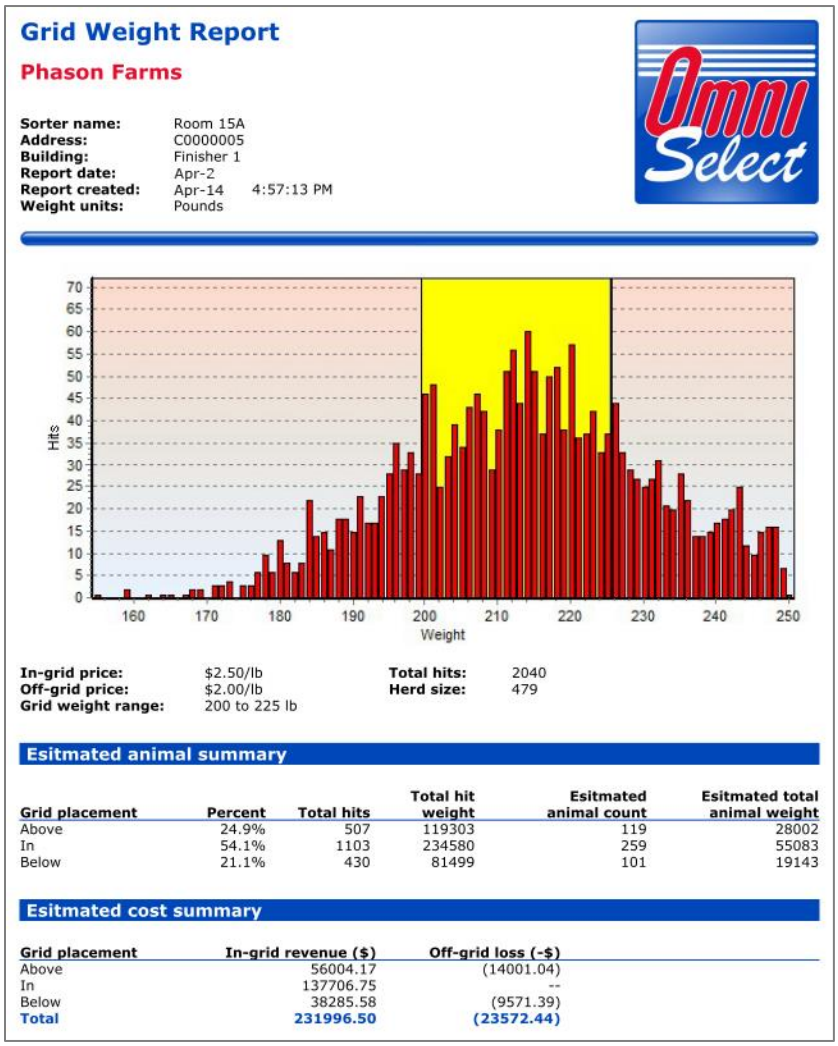


Sorter	Total hits	Herd size	Hits per animal	Minimum weight	Maximum weight	Avgerage weight	Median weight	Standard deviation	Coefficient of Variance	Average daily gain
Room 14A	1879	474	4.0	139.7	231.5	187.9	187.6	16.1	8.5%	1.77
Room 15A	2596	528	4.9	70.9	169.6	108.4	107.5	14.8	13.6%	1.89

Grid Weight Report

The Grid Weight Report has a chart showing the placement of all hits in relation to the defined grid weights. The summaries at the bottom of the report estimate the number of hogs that are in the grid, as well as the revenues and losses associated with them. The loss indicates the opportunity cost of not having the hogs in the grid.

When creating a Grid Weight Report, in addition to selecting a date and sorter, you need to enter the upper and lower grid limits, as well as the in-grid and off-grid prices.



Grid Weight Report

Phason Farms

Sorter name: Room 15A
Address: C0000005
Building: Finisher 1
Report date: Apr-2
Report created: Apr-14 4:57:13 PM
Weight units: Pounds

In-grid price: $2.50/lb
Off-grid price: $2.00/lb
Grid weight range: 200 to 225 lb
Total hits: 2040
Herd size: 479

Esitmated animal summary

Grid placement	Percent	Total hits	Total hit weight	Esitmated animal count	Esitmated total animal weight
Above	24.9%	507	119303	119	28002
In	54.1%	1103	234580	259	55083
Below	21.1%	430	81499	101	19143

Esitmated cost summary

Grid placement	In-grid revenue ($)	Off-grid loss (-$)
Above	56004.17	(14001.04)
In	137706.75	--
Below	38285.58	(9571.39)
Total	**231996.50**	**(23572.44)**

Information about the report

A chart showing the placement of all hits in comparison to the grid weights

The grid weights and prices used to create the report

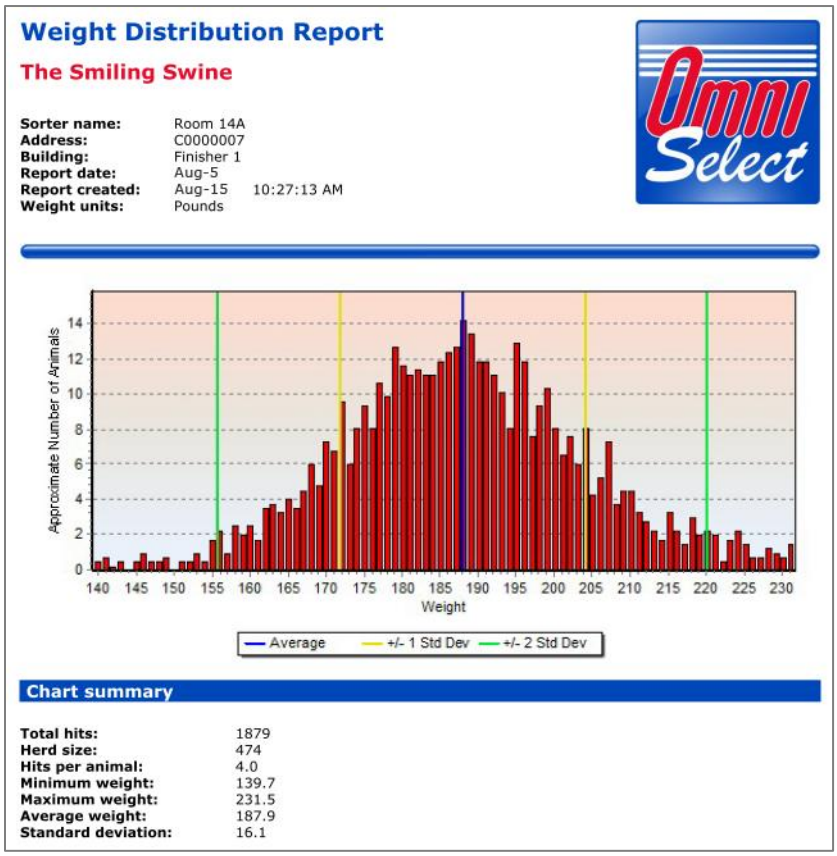
A summary showing the grid placement of the hits and the estimated number of animals

A cost summary based on the estimated number of animals and their grid placement

Weight Distribution Report

The Weight Distribution Report has a chart showing the approximate number of hogs at each weight and the standard deviations. The summary lists the number of hogs that were sorted, the total, minimum, maximum, and average weights, and the standard deviation.

Standard deviation is a statistic for measuring the variability of a set of numbers. Standard deviation can tell you how close the weights of a group of hogs are to the average. When the standard deviation is small, the weights are close to the average. When the standard deviation is large, the weights are spread out.



Information about the report

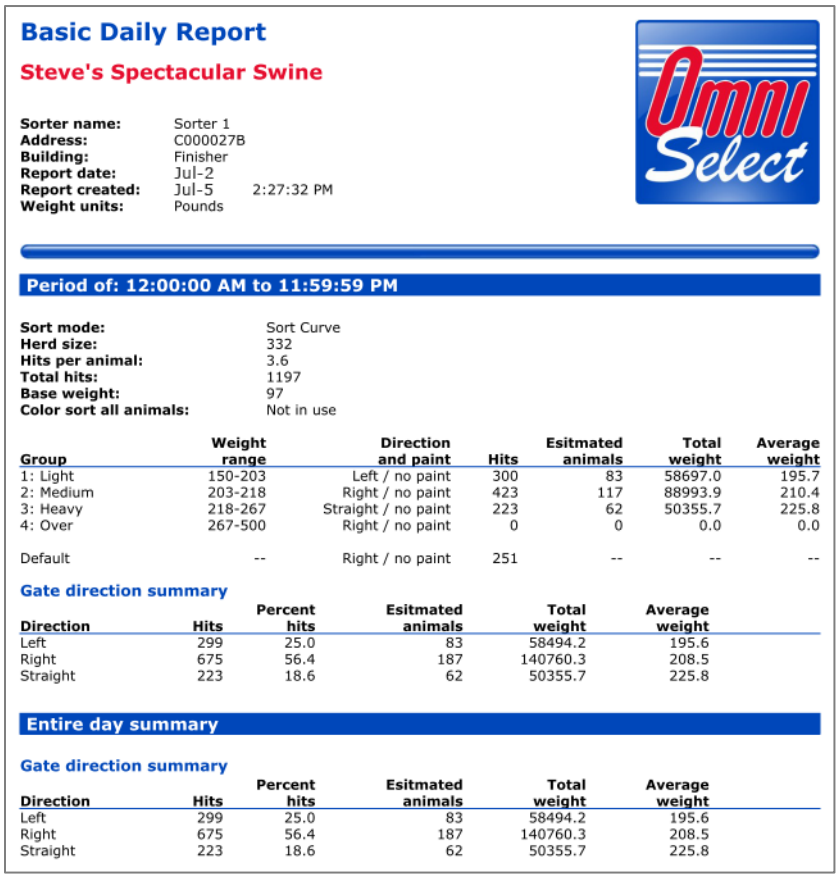
A chart showing the approximate number of animals at each weight and the standard deviations

A summary of the chart

Basic Daily Report

The Basic Daily Report is a shorter version of the Detailed Daily Report. The report contains a section for each "settings period". A settings period is a part of the day when the settings were the same. For example, if you changed the settings at 12 noon, there would be one section from the beginning of the day until noon, and another from noon until the end of the day.

Each section shows the group settings, statistics for the group, and a gate direction summary. There is also a gate direction summary for the entire day.



Basic Daily Report

Steve's Spectacular Swine

Sorter name: Sorter 1
Address: C000027B
Building: Finisher
Report date: Jul-2
Report created: Jul-5 2:27:32 PM
Weight units: Pounds

Period of: 12:00:00 AM to 11:59:59 PM

Sort mode: Sort Curve
Herd size: 332
Hits per animal: 3.6
Total hits: 1197
Base weight: 97
Color sort all animals: Not in use

Group	Weight range	Direction and paint	Hits	Esitmated animals	Total weight	Average weight
1: Light	150-203	Left / no paint	300	83	58697.0	195.7
2: Medium	203-218	Right / no paint	423	117	88993.9	210.4
3: Heavy	218-267	Straight / no paint	223	62	50355.7	225.8
4: Over	267-500	Right / no paint	0	0	0.0	0.0
Default	--	Right / no paint	251	--	--	--

Gate direction summary

Direction	Hits	Percent hits	Esitmated animals	Total weight	Average weight
Left	299	25.0	83	58494.2	195.6
Right	675	56.4	187	140760.3	208.5
Straight	223	18.6	62	50355.7	225.8

Entire day summary

Gate direction summary

Direction	Hits	Percent hits	Esitmated animals	Total weight	Average weight
Left	299	25.0	83	58494.2	195.6
Right	675	56.4	187	140760.3	208.5
Straight	223	18.6	62	50355.7	225.8

Information about the report

Information about the first "settings period" of the day

A summary of hits and weights for each weight group

A summary for each sort direction

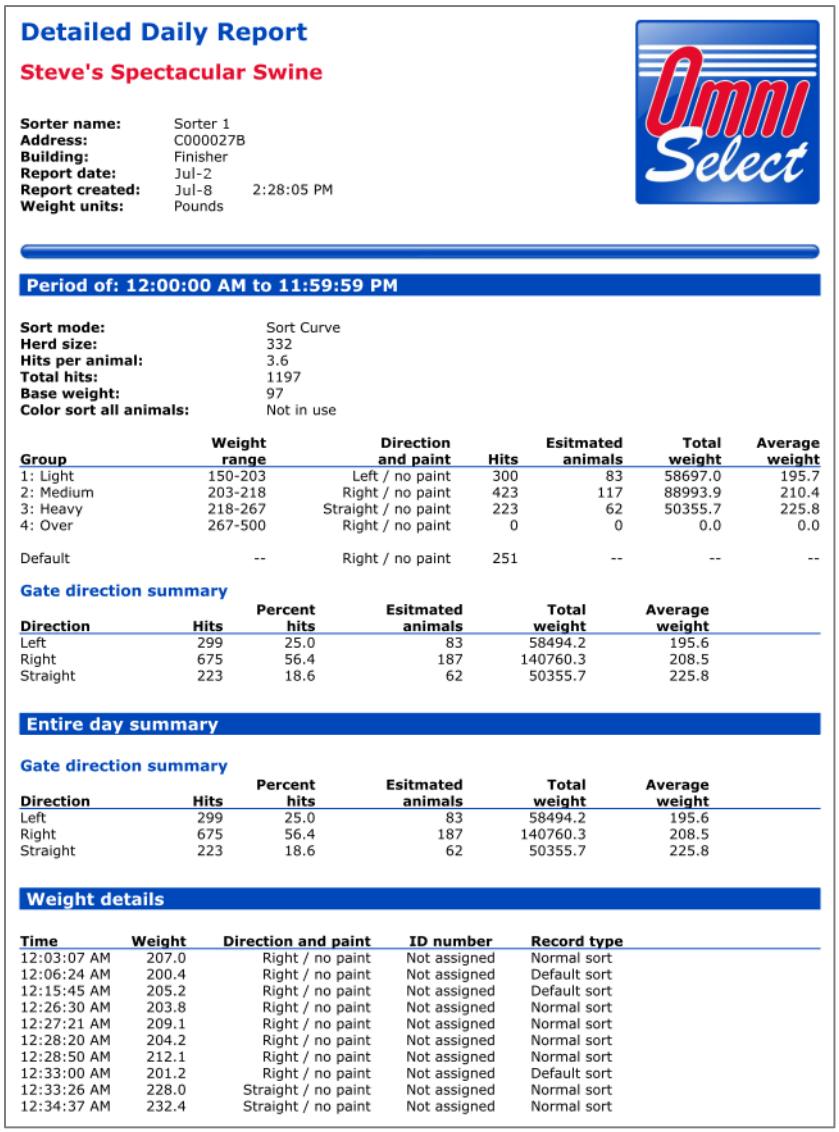
A daily summary for each sort direction

Detailed Daily Report

The Detailed Daily Report shows what happened in a day. The report contains a section for each "settings period". A settings period is a part of the day when the settings were the same. For example, if you changed the settings at 12 noon, there would be one section from the beginning of the day until noon, and another from noon until the end of the day.

Each section shows the group settings, statistics for the group, and a gate direction summary. There is also a gate direction summary for the entire day. At the end of the report, there is a list of hits for the day. If the sorter has an RFID-tag reader, the list includes the ID of the hogs.

The Detailed Daily Report can be long. The following example shows only a small section of the weight details.



Detailed Daily Report

Steve's Spectacular Swine

Sorter name: Sorter 1
Address: C000027B
Building: Finisher
Report date: Jul-2
Report created: Jul-8 2:28:05 PM
Weight units: Pounds

Period of: 12:00:00 AM to 11:59:59 PM

Sort mode: Sort Curve
Herd size: 332
Hits per animal: 3.6
Total hits: 1197
Base weight: 97
Color sort all animals: Not in use

Group	Weight range	Direction and paint	Hits	Esitmated animals	Total weight	Average weight
1: Light	150-203	Left / no paint	300	83	58697.0	195.7
2: Medium	203-218	Right / no paint	423	117	88993.9	210.4
3: Heavy	218-267	Straight / no paint	223	62	50355.7	225.8
4: Over	267-500	Right / no paint	0	0	0.0	0.0
Default	--	Right / no paint	251	--	--	--

Gate direction summary

Direction	Hits	Percent hits	Esitmated animals	Total weight	Average weight
Left	299	25.0	83	58494.2	195.6
Right	675	56.4	187	140760.3	208.5
Straight	223	18.6	62	50355.7	225.8

Entire day summary

Gate direction summary

Direction	Hits	Percent hits	Esitmated animals	Total weight	Average weight
Left	299	25.0	83	58494.2	195.6
Right	675	56.4	187	140760.3	208.5
Straight	223	18.6	62	50355.7	225.8

Weight details

Time	Weight	Direction and paint	ID number	Record type
12:03:07 AM	207.0	Right / no paint	Not assigned	Normal sort
12:06:24 AM	200.4	Right / no paint	Not assigned	Default sort
12:15:45 AM	205.2	Right / no paint	Not assigned	Default sort
12:26:30 AM	203.8	Right / no paint	Not assigned	Normal sort
12:27:21 AM	209.1	Right / no paint	Not assigned	Normal sort
12:28:20 AM	204.2	Right / no paint	Not assigned	Normal sort
12:28:50 AM	212.1	Right / no paint	Not assigned	Normal sort
12:33:00 AM	201.2	Right / no paint	Not assigned	Default sort
12:33:26 AM	228.0	Straight / no paint	Not assigned	Normal sort
12:34:37 AM	232.4	Straight / no paint	Not assigned	Normal sort

Information about the report

Information about the settings period

A summary of hits and weights for each weight group

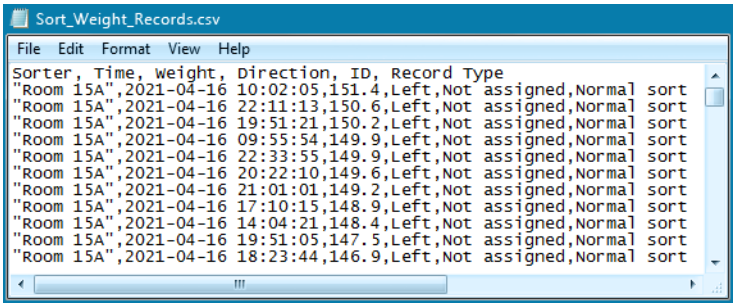
A summary for each sort direction

A daily summary for each sort direction

A complete list of hits and weights for the day

Weight Records

The Weight Records Report lists the weights of all the hogs that went through the sorter. If the sorter has an RFID-tag reader, the list includes the ID of the hogs. The list, sorted by date and time, can include multiple entries from hogs if they went through the sorter multiple times.

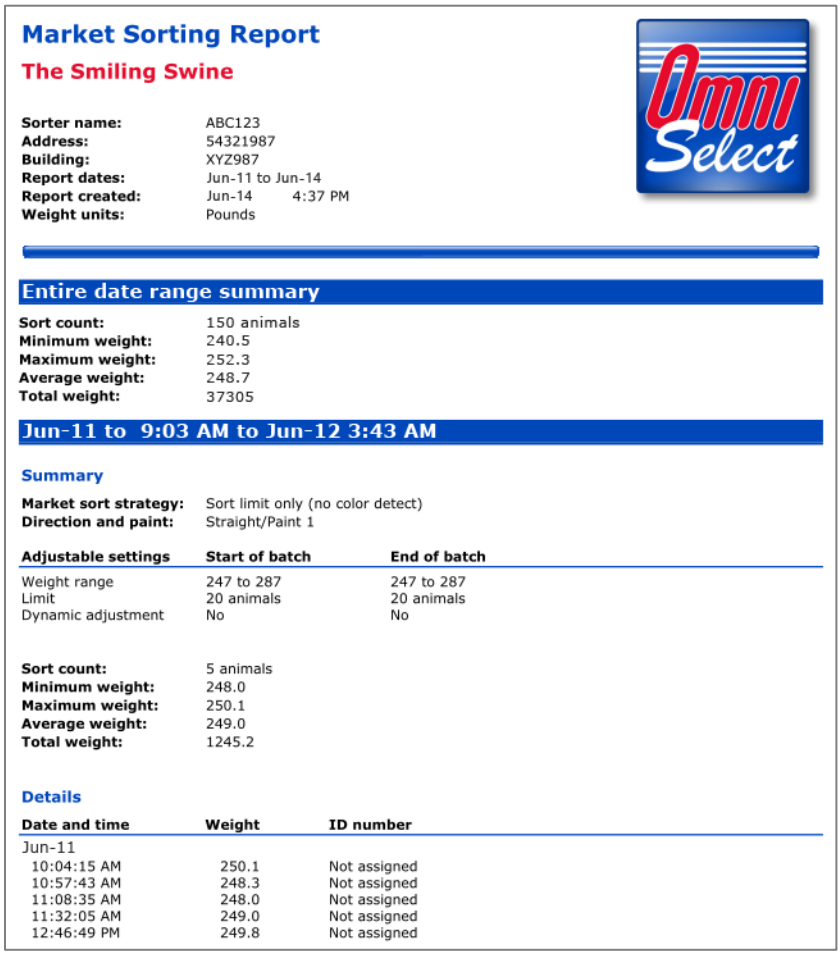


- ◇ The Weight and ID report is a CSV-only report and is meant for importing into other third-party software. If you want print/preview version of the report, the same information is in the Detailed Daily Report.
- ◇ If you are not using an RFID reader, or the unit could not read the ID tag, the ID is "Not Assigned".

Market Sorting Report

The Market Sorting Report displays the market sort settings, individual hog weights, and a summary of all hogs that were sorted using the settings.

- ◇ If individual hog records are missing from the report, wait until the next hour passes and Select Sort downloads the records from the scale head.
- ◇ The following example shows only portions of a complete report.



Market Sorting Report

The Smiling Swine

Sorter name:	ABC123
Address:	54321987
Building:	XYZ987
Report dates:	Jun-11 to Jun-14
Report created:	Jun-14 4:37 PM
Weight units:	Pounds

Entire date range summary

Sort count:	150 animals
Minimum weight:	240.5
Maximum weight:	252.3
Average weight:	248.7
Total weight:	37305

Jun-11 to 9:03 AM to Jun-12 3:43 AM

Summary

Market sort strategy:	Sort limit only (no color detect)
Direction and paint:	Straight/Paint 1

Adjustable settings	**Start of batch**	**End of batch**
Weight range	247 to 287	247 to 287
Limit	20 animals	20 animals
Dynamic adjustment	No	No

Sort count:	5 animals
Minimum weight:	248.0
Maximum weight:	250.1
Average weight:	249.0
Total weight:	1245.2

Details

Date and time	**Weight**	**ID number**
Jun-11		
10:04:15 AM	250.1	Not assigned
10:57:43 AM	248.3	Not assigned
11:08:35 AM	248.0	Not assigned
11:32:05 AM	249.0	Not assigned
12:46:49 PM	249.8	Not assigned

Information about the report

An example of the message that displays if there has been no market sort data

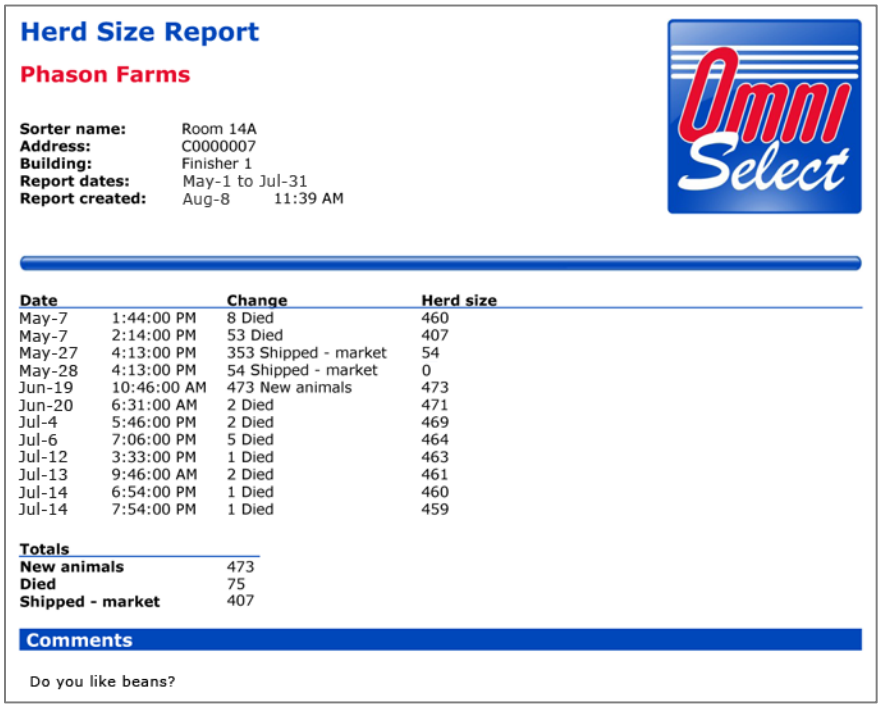
The market sort settings and a summary of the animals that were sorted during the period

A list of animals and weights sorted using the market sorting settings during the period

Herd Size Report

The Herd Size Report lists all herd changes (additions and subtractions close changes, as well as the reason for the changes. The list is sorted by date and time.

Information for the Herd Size Report comes from your entries in the *Sort settings* window. Keep your herd information current and accurate or reports will display correct information. For more information, read **Tracking herd size** on page 22.



Herd Size Report

Phason Farms

Sorter name: Room 14A
Address: C0000007
Building: Finisher 1
Report dates: May-1 to Jul-31
Report created: Aug-8 11:39 AM

Date		Change	Herd size
May-7	1:44:00 PM	8 Died	460
May-7	2:14:00 PM	53 Died	407
May-27	4:13:00 PM	353 Shipped - market	54
May-28	4:13:00 PM	54 Shipped - market	0
Jun-19	10:46:00 AM	473 New animals	473
Jun-20	6:31:00 AM	2 Died	471
Jul-4	5:46:00 PM	2 Died	469
Jul-6	7:06:00 PM	5 Died	464
Jul-12	3:33:00 PM	1 Died	463
Jul-13	9:46:00 AM	2 Died	461
Jul-14	6:54:00 PM	1 Died	460
Jul-14	7:54:00 PM	1 Died	459

Totals

New animals	473
Died	75
Shipped - market	407

Comments

Do you like beans?

Information about the report

This is a list of additions and subtractions from the herd during the date range.

The summary displays at the bottom

If you added comments when adding or removing animals, they display here

Creating reports

A This button displays the reports window.

B This button displays the available Select Sort reports.

C This is where you select the report you want to create.

D If required, this is where you to select the date or date range for the report.

E If required, this is where you to select the sorter for the report.

F If required, this is where you to select the format for the report.

G If required, this is where you to select different options or add additional information to the report.

H This button creates and displays the report.

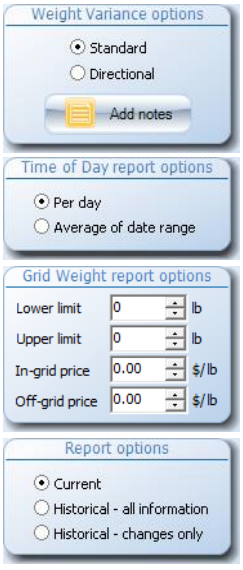
Report formats, dates, and other information

Some reports can be created in multiple formats or require additional information. The following table shows the formats available, date type, and other information required for each report.

Name	Format	Date type	Other information
Settings Report	PDF	Current or range	Current, historical-all, or historical-changes
Configuration Report	PDF	Current or range	Current, historical-all, or historical-changes
Standard Weight Variance Report	PDF / CSV	Date range	Optional notes
Directional Weight Variance Report	PDF	Date range	Optional notes
Time of Day Report - per day	PDF / CSV	Date range	
Time of Day Report - average	PDF	Date range	
Grid Weight Report	PDF	Single date	Grid weights and prices
Daily Summary Report	PDF / CSV	Single date	
Weight Distribution Report	PDF	Single date	
Basic Daily Report	PDF	Single date	
Detailed Daily Report	PDF	Single date	
Weight Records	CSV	Date range	
Market Sorting Report	PDF	Date range	
Herd Size Report	PDF	Date range	
Market Forecaster Report	PDF / CSV	Start date	Number of days, minimum weights, ADG curve

- For information about creating Market Forecaster Reports, read **Using the Market Forecaster** on page 58.
- Select Sort uses the herd size in many reports and features. *Keep your herd information current and accurate* or reports and features will use incorrect information. For more information, read **Tracking herd size** on page 22.

To create reports



1. In the main window, click **Reports**, and then **Sorters**.
2. Below *Reports*, select the type of report you want to create.
   The window updates and adds any additional information required to create the report.
3. If you are creating a report that requires a date or date range, select the dates from the boxes. For more information, read **Selecting dates** on page 57.
4. Below *Your sorters*, select the sorter you want in the report. You do not need to select a sorter for the Daily Summary Report; it uses all sorters.
5. Select the remaining details for your report. For more information, see the overview for the specific report.
6. Click **Create**.

- If you created a printable report, OMNI Select displays your report in the *Report Preview* window. From here you can print or save your report by clicking the appropriate button.
- If you created a CSV report, the *Save As* window displays so that you can select a location and save your report. After saving your report, it displays in your default editor.

> **Note** Reports print to the default printer using the default settings.

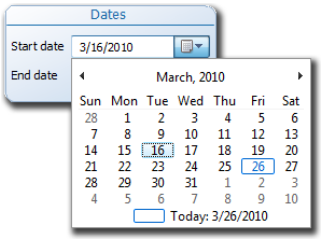
7. Click **Close** to return to the *Reports* window.

Selecting dates

Many Select Sort reports require a single date or date range.

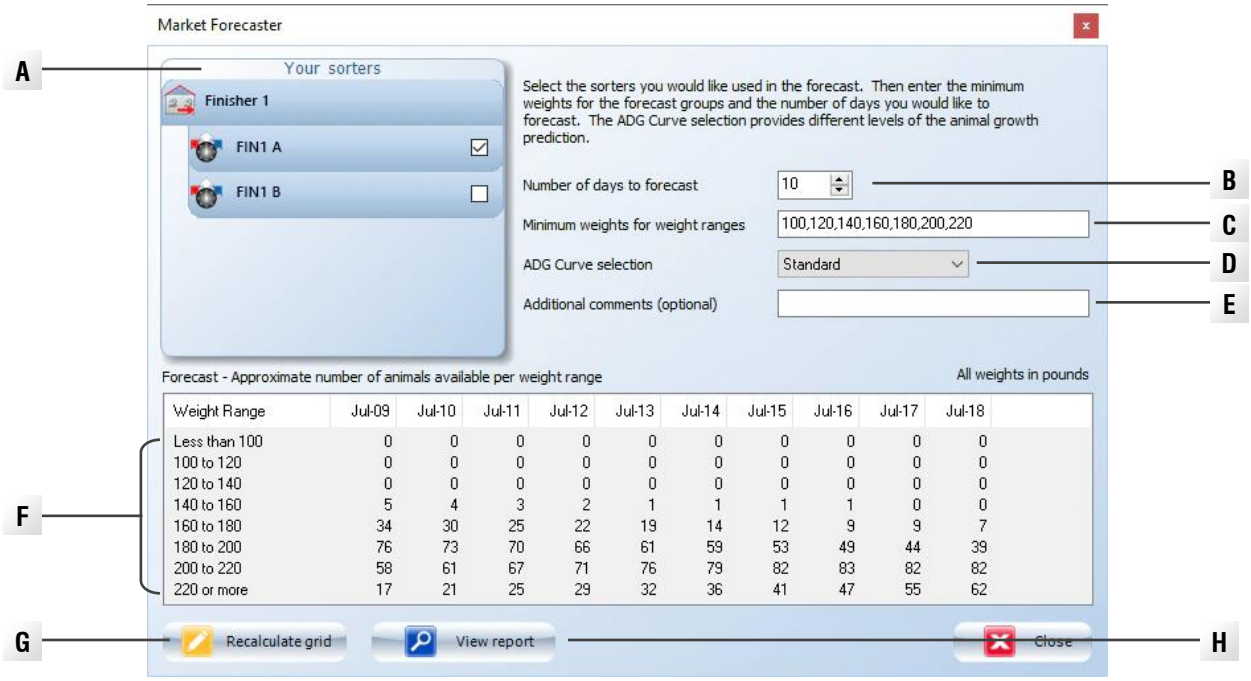
To select dates

1. Beside *Start date*, click ▼.
   The date selector displays.
2. Select a date.
   - To move backward or forward through the months, click ◀ or ▶.
   - To select a specific month, click the month on the calendar and then select the month you want.
   - To move forward and backward through the years, double-click the year on the calendar and then select the year you want.



Using the Market Forecaster

The Market Forecaster is a powerful tool that protects how many hogs will fall within specified weight ranges on selected dates. Using the Market Forecaster helps you predict when to change rations or ship hogs.



A This is where you select the sorters you want to use for the forecast.

B This is where you set the number of days, from 7 to 63. You can change the number by clicking **Up** or **Down**. If you change the number of days, you need to recalculate the forecast.

C These are the weight ranges for the forecast. You can enter different weight ranges, but they must be separated by a comma. If you change the ranges, you need to recalculate the forecast.

D This is where you select the average daily gain curve used to predict the weights. Standard is normal ADG, fair is below normal, and exceptional is above.

E This area is where you can add optional comments.

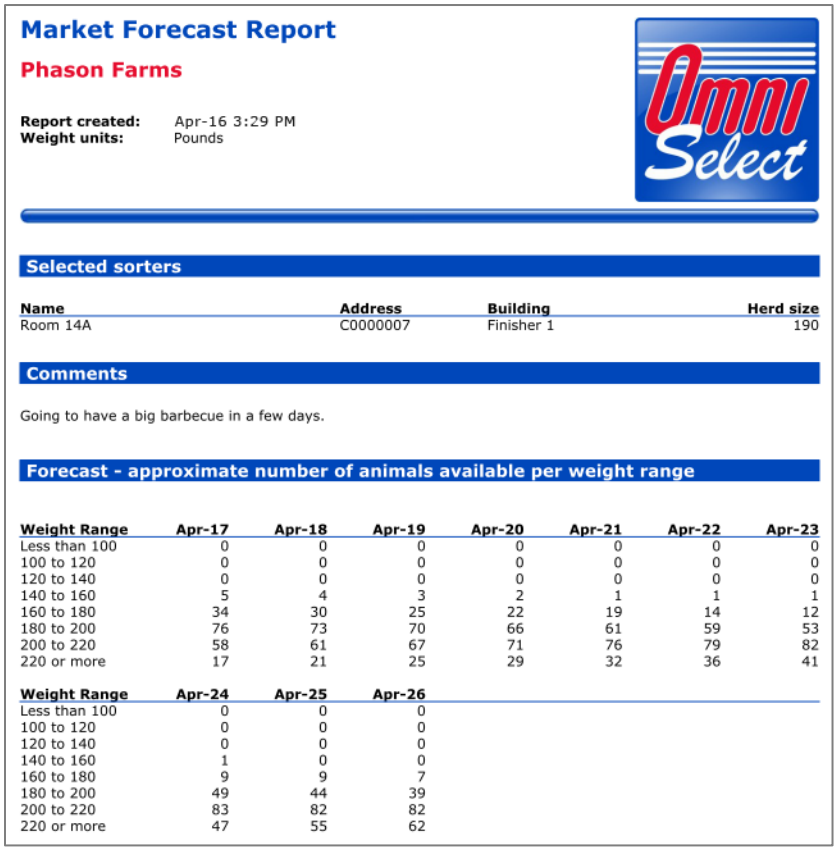
F This is the market forecast.

G This button recalculates the forecast. If you make changes to the weight ranges or number of days, you need to recalculate the forecast.

H This button displays the Market Forecast Report.

Market Forecaster Report

The Market Forecaster Report is an estimate of how many hogs will fall within different weight ranges over the selected date range. The report is an excellent tool for predicting shipping dates.



Market Forecast Report

Phason Farms

Report created: Apr-16 3:29 PM
Weight units: Pounds

Selected sorters

Name	Address	Building	Herd size
Room 14A	C0000007	Finisher 1	190

Comments

Going to have a big barbecue in a few days.

Forecast - approximate number of animals available per weight range

Weight Range	Apr-17	Apr-18	Apr-19	Apr-20	Apr-21	Apr-22	Apr-23
Less than 100	0	0	0	0	0	0	0
100 to 120	0	0	0	0	0	0	0
120 to 140	0	0	0	0	0	0	0
140 to 160	5	4	3	2	1	1	1
160 to 180	34	30	25	22	19	14	12
180 to 200	76	73	70	66	61	59	53
200 to 220	58	61	67	71	76	79	82
220 or more	17	21	25	29	32	36	41

Weight Range	Apr-24	Apr-25	Apr-26
Less than 100	0	0	0
100 to 120	0	0	0
120 to 140	0	0	0
140 to 160	1	0	0
160 to 180	9	9	7
180 to 200	49	44	39
200 to 220	83	82	82
220 or more	47	55	62

Information about the report

Information about the sort groups you selected for the forecast

The comments section; it displays only if you add comments.

The forecast section, sorted by weight range and date

To create Market Forecasts

1. In the main window, click **Reports**, and then **Sorters**.
2. Below *Reports*, select *Market Forecaster*.
3. Click **Create**.
   The Market Forecaster displays.
4. Below *Your sorters*, select the sorter is you want in the forecast.
5. Make any changes you want to the default forecast details.
   - To change the range, beside *Number of days to forecast*, click **Up** or **Down**.
   - To change the weights, beside *Minimum weights for weight ranges*, type new values. Separate each weight by a comma.
   - To change the average daily gain curve (standard, fair, or exceptional), click the current curve and then select a different one.
   - To add comments, beside Additional comments, type the information.

6. Click **Recalculate Grid**.
   The Forecaster displays the forecast.
7. To view a report of the forecast, click **View Report**.
   OMNI Select displays your report in the *Report Preview* window. From here you can print or save your report by clicking the appropriate button.

Reports print to the default printer using the default settings.

8. Click **Close** to return to the *Reports* window.

Appendix

Troubleshooting

- If you are having problems using Select Sort, look up the problem in the table below and then follow the instructions to resolve the problem.
- If you have a problem that is not listed here, try to determine what might be causing the problem.
- If you cannot resolve the problem, call your dealer or Phason's Customer Support (read **Service and technical support** at the front of the manual).

Problem/message	Possible cause	Resolution
Hogs are not sorting in the correct direction.	The poweroff configuration does not match the hose connections on the solenoid	◇ Switch off the power to the scale head and then observe the gate positions. Make sure the poweroff configuration is the same. For more information, read **Configuring sorter poweroff** on page 14
	The scale head is using a different sort mode than you think it is.	◇ Make sure the scale head is set to the correct sort mode. For more information, read **Selecting the sort mode** on page 26.
	You are using Auto-Sort mode and market sorting.	◇ If you are using Auto-Sort mode and there is an active market sort, Select Sort uses the market sort settings. If you do not want to use market sorting, reset the sort limit. For more information, read **Using Auto-Sort mode** on page 29.
	The sensor is not connected properly.	◇ Verify the headgate sensor is connected properly to the scale head. For more information, see the **AutoSort Connect installation guide**.
	The sensor is not working properly.	◇ Verify the sensor is working. ◇ The light in the sensor housing should come on when the gate (or another metallic object) comes near the sensor. ◇ Check to make sure the sensor state changes as the gate opens and closes. For more information, see the **AutoSort Connect installation guide**. ◇ If the sensor is not working, disable the sensor until you can replace it. For more information, read **Configuring the sorter profile** on page 12.
Hogs are weighed before the tailgate closes, resulting in a lighter weight reading	The tailgate sensor is not enabled.	◇ Enable the tailgate sensor. For more information, read **Configuring the sorter profile** on page 12.

Problem/message	Possible cause	Resolution
Too many hogs are being sorted in the default direction	The actual weight is between the base weight and group 1 minimum weight.	◇ Lower the group 1 weight. For more information, read **Using Auto-Sort mode** on page 29.
	The hogs are not staying still long enough to obtain a proper reading.	◇ Use Training mode. For more information, read **Using Training mode** on page 28. ◇ Adjust the samples and/or variance to increase the chance of getting valid readings. For more information, read **Configuring weights** on page 18.
	The hogs are slow moving off the scale, also known as "lazy hogs".	◇ Increase the lazy hog delay. For more information, read **Configuring sorter timing** on page 15.
	The headgate sensor is damaged.	◇ Disable the sensor until you can replace it. For more information, read **Configuring the sorter profile** on page 12.

Incorrect weights

If you think the scale is showing incorrect weights, follow the steps below to determine and correct the problem.

1. Make sure the cage is not hitting against anything (for example, the floor, dung, part of the frame). The only contact points must be the load cell and the stabilizer bar at the bottom of the cage.
2. Check if the load cell is crooked.
   a) Remove any weight from the scale.
   b) Press down on the scale and then release it.
   c) Note the weight the scale head displays after settling.
   d) Pull up on the scale and then release it.
   e) Note the weight the scale head displays after settling. If the weight value is does not equal the value from step c), the load cell might be crooked.
3. Make sure the load cell bolt is hanging straight. If the bolt is crooked, it could be hitting against the side of the hole in the load cell and preventing a true reading. If it is, go around the scale and look from all angles to make sure the bolt is perpendicular (at a 90-degree angle) to the top of the load cell.
4. Check the internal condition of the load cell by using a multimeter on resistance mode (ohms-Ω). You do not have to disconnect the load cell from the cage to properly measure the resistance.
   a) Switch off the power to the scale.

b) Disconnect the four load cell wires from the scale head. The wires are as follows.

- Green: excitation (+)
- Black: excitation (–)
- White: signal (+)
- Red: signal (–)

c) Measure the resistance between the excitation (+) and excitation (–) wires. The resistance should be 1100 +/- 50 ohms. If it is not, the load cell might be damaged.

d) Measure the resistance between the following wires.

- Excitation (+) and signal (–)
- Excitation (+) and signal (+)
- Excitation (–) and signal (–)
- Excitation (–) and signal (+)

A typical value for the resistance is 810 +/- 30 ohms. The important thing to check is that all four readings are within 3 ohms of each other. If the values vary by more than 3 ohms, the load cell might be damaged. Compare the values using a new load cell.

On the older-style load cells (bar-style, as opposed to "S"-style), the resistance measurements will be different, but the excitation-to-signal measurements should still be within 3 ohms of each other. The excitation measurement should be the amount stated on the load cell or its specification sheet.

5. Recalibrate the scale. For more information, read the **Calibration** section in the **AutoSort Connect installation guide**.

Index

2

2-way sorters 12

A

adding

- hogs 22–23
- sorters 10

air chaser delay 17

air chaser off time 17

air chaser on time 17

alarm settings 21–23

animal chaser delay 17

animal chaser duration 17

auto-sort mode 26, 29–35

average daily gain 44–45

B

base weight 21

Basic Daily Report 49–50

C

circular sorting ..... *See* pen capacities

close duration ..... *See* headgate timing

color sensor 12, 13

color sorting ..... *See* market sorting or sick pen

Communication Center 5, 21

Configuration Manager 6, 9

Configuration Report 43–44, 56–57

configuring

- pen capacities 23–24
- poweroff options 14–15
- profile options 12–13
- timing options 15–18
- weight options 18–19

creating reports ..... See specific report

D

Daily Summary Report 42–44

dates 57

default gate positions 14

default sort direction 12

Detailed Daily Report 50–51

Directional Weight Variance Report 46, 56–57

dynamic market sorting 30

E

enabling sensors 12

F

FCO mode 33–35

firmware 4

forecasting 58–60

G

Grid Weight Report 47–48

H

head sensor option 12

headgate state 14

headgate timing 15–18

held back animals 23–24

herd information 22–23

Herd Size Report 52

hits 2

M

Manual Control Viewer 38–40

Market Forecaster 56–57, 58–60

market sorting ..29–31, 40, *See also* auto-sort mode

Market Sorting Report 52–54, 56–57

maximum color detect duration 16

maximum weighing duration 16

minimum weight 30
mode ..... *See* sort mode

N

no activity alarm 21

O

open duration ..... *See* timing configuration

P

painter duration 17
pen capacities 23–24
poweroff configuration 14–15
profile configuration 12–13

R

removing hogs 22–23
removing sorters 11

S

samples 19
Select Sort features 2–4
selecting
  dates 57
  sort mode 26–28
Settings Report 42–43
sick pen 29–31
sort curve mode 26
sort limit ..... *See* market sorting
sort mode ..... 26–28, *See also* specific mode
Sort Summary Viewer 40
sort-curve mode 36–38
sorter type 12
standard deviation 44–45, 48–49
Standard Weight Variance Report . 44–45, 56–57
stuck animal alarm 21

T

tail sensor option 12
tailgate state setting 14
tailgate timing 15–18
testing equipment 38–40
Time of Day Report 46–47, 56–57, 56–57
timing configuration 15–18
training gate duration 16
training mode 26, 28
two-way sorters 12

V

variance ..... 18, *See also* interpreting data
version requirements 4

W

weight configuration 18–19
Weight Distribution Report 48–49
Weight Records Report 52

Limited warranty

Software

Phason Inc. (Phason) warrants for a period of 90 days from the date of purchase that the software product will execute its programming instructions when properly installed on the personal computer or workstation indicated on this package. Phason does not warrant that the operation of the software will be uninterrupted or error free. Should this software product fail to execute its programming instructions during the warranty period, the purchaser's remedy shall be to return the software CD (media) to Phason for replacement. Should Phason be unable to replace the media within a reasonable amount of time, the purchaser's alternate remedy shall be a refund of the purchase price upon return of the product and all copies.

Media

Phason warrants the media upon which this product is recorded to be free from defects in materials and workmanship under normal use for a period of 90 days from the date of purchase. Should the media prove to be defective during the warranty period, the purchaser's remedy shall be to return the media to Phason for replacement. Should Phason be unable to replace the media within a reasonable amount of time, the purchaser's alternate remedy shall be a refund of the purchase price upon return of the product and all copies.

Notice of warranty claims

The purchaser must notify Phason in writing of any warranty claim no later than 30 days after the warranty period expires.

Limitation of warranty

Phason makes no other express warranty, whether written or oral, with respect to this product. Any implied warranty of merchantability or fitness is limited to the 90 days of this written warranty. Some states or provinces do not allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This warranty gives specific legal rights and you may have other rights, which vary from state to state, or province to province.

Exclusive remedies

The remedies provided above are the purchaser's sole and exclusive remedies. Phason shall not be liable for any direct, indirect, special, incidental, or consequential damages (including lost profit) whether based on warranty, contract, tort, or any other legal theory. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Warranty service

Warranty service may be obtained from the Phason office location indicated in the user manual or service booklet.

Service and technical support

Phason will be happy to answer all technical questions that will help you use your OMNI Select system. Before contacting Phason, collect the following information:

- A description of the problem
- A description of what you were doing before the problem occurred
- The model(s) and serial number(s) of the devices
- Any messages displayed by the software

My dealer's name: _____

How to contact my dealer:

Street/PO Box _____
City _____
State/Province _____
Zip/Postal _____
Phone _____
Fax _____
E-mail _____
Web site _____

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