



- ENTRY ☐
- EXIT/TX ☐
- SORT/RX ☐
- PAINT ☐
- HOG IN ☐



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E-GATE user manual

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Service and technical support

Your dealer will be happy to answer all technical questions. If E-GATE needs service after the warranty has expired, contact your dealer.

Before contacting your dealer or Crystal Spring Hog Equipment, get the following:

- Serial number _____
- A description of the problem
- A description of what you were doing when the problem occurred

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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Limited warranty

Crystal Spring Hog Equipment (CSHE) warrants all CSHE Products to be free from defects in electronics, fabrication, assembly and/or workmanship for 1 year.

EXCEPT AS PROVIDED IN THE LIMITED WARRANTY STATEMENT, CSHE MAKES NO OTHER WARRANTIES AND THE WARRANTY STATEMENT IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. CSHE'S LIABILITY FOR WARRANTY CLAIMS IS LIMITED TO REPAIR OR REPLACEMENT AS SET FORTH IN THIS WARRANTY STATEMENT.

This Limited Warranty does not cover damage, fault, failure or malfunction due to external causes, including accident, abuse, misuse, servicing not authorized by CSHE, usage and/or storage and/or installation not in accordance with Product instructions, failure to perform required preventative maintenance, normal wear and tear, acts of God, fire, flood, war, acts of violence or any similar occurrence; any attempt by any person other than CSHE personnel or any person authorized by CSHE, to adjust, repair or support the Products and problems caused by use of parts and components not supplied by CSHE.

During the warranty period beginning on the invoice date, CSHE will, **at its sole discretion**, repair or replace products returned to CSHE that CSHE, **at its sole discretion**, deems to be defective under the terms of warranty. Customer must prepay shipping and transportation charges, and insure the shipment or accept the risk of loss or damage during such shipment and transportation. CSHE will ship the repaired or replacement products to Customer freight prepaid, or Customer may self-collect the repaired or replacement products from CSHE.

About the manual

The E-GATE user manual describes the features of E-GATE, version 1.12, and how to use them. The manual is divided into the following sections.

- **Introducing E-GATE** (starting on page 1)
- **Installing E-GATE** (starting on page 9)
- **Configuring E-GATE** (starting on page 21)
- **Using E-GATE** (starting on page 39)
- **Maintaining the E-GATE** (starting on page 63)
- **Appendices** (starting on page 84)

Symbols

You will see the following symbols in the manual.



This is a note. It contains helpful information that can make it easier for you to understand or use E-GATE.



This is a caution. It contains important information that you must follow when installing, servicing, or using E-GATE. Failure to follow this information can lead to damaged equipment or other undesirable consequences.



This is a warning. It contains important safety information that you must follow when installing or servicing E-GATE. Failure to follow this information can lead to damaged equipment, electrical shocks, or severe injury.

Because of constant innovations and improvements in the hog industry, and helpful suggestions from barn operators, Crystal Spring Hog Equipment reserves the right to improve or alter the E-GATE user manual without notice.

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Introducing E-GATE

E-GATE is an electronically controlled sorter designed for automatic hog sorting in any hog operation; from small, single-barn sites, all the way up to large multi-barn operations with food courts. The E-GATE can be networked, to form a sorting system that can communicate with other modules.

E-GATE features

The E-GATE sorting system consists of the sorter and the scale head.

E-GATE sorter features

- Automatic weighing and sorting – two or three-way sorting ability
- Stainless steel construction – strong and durable
- Animal welfare design – horizontal bars allow animals clear visibility; soft-touch gates help improve animal experience
- Stable floor – helps prevent animals from hesitating when entering
- Tunnel-style one-way gates – help prevent animals from entering in the wrong direction; promote better animal flow
- Paint sprayers – three for two-way sorters; two for three-way sorters
- Versatile and adaptable – suitable for new and existing barns; portable models available
- One-year limited warranty

E-GATE scale head features

- Automatic mode – for automatically sorting animals
- Manual mode – for testing equipment or manually sorting animals
- Training mode – for training new animals to move through the sorter
- Customizable statistics and reports
- Password security – protects advanced areas of the control
- Twenty-character, four-line backlit LCD display
- Twenty-button keypad
- Rugged enclosure (corrosion resistant, water resistant, and fire retardant)
- One-year limited warranty

Available options and accessories

For information about any of the following options and accessories, contact your dealer.

E-GATE communication kit

The E-GATE communication kit is required if you want to connect your scale heads together in a network. The kit includes the following.

- Sealed enclosure
- Two strain reliefs for bringing communication cable into the enclosure
- Three-position terminal strip for joining communication wires
- Prewired cable for connecting to the back of the E-GATE scale head

Becoming familiar with the E-GATE scale head

The scale head has a 4-line, 20-character display that shows status and configuration information. Line four sometimes displays additional information or alternate functions for the function buttons (**F1** to **F4**).

```
WAITING FOR HOG
LEFT: 0000 RIGHT: 0000
WEIGHT: 000 lbs
More Entry Exit Sort
```

Status indicators

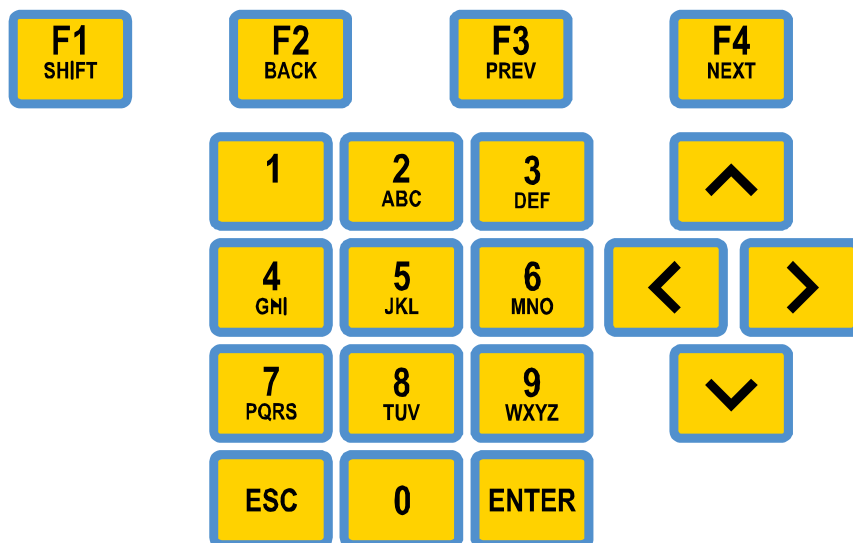
The scale head has five status indicators (LEDs) to the left of the display.

- The **ENTER** indicator is on when the entry gate is closed, or when a remote logon is active.
- The **EXIT/TX** indicator is on when the exit gate is open. The indicator flashes when transmitting information to remote E-GATES.
- The **SORT/RX** indicator is on when one of the sort gates is not in the non-sort position. The indicator flashes when receiving information from remote E-GATES.
- The **PAINT** indicator is on when one of the painters is operating.
- The **HOG IN** indicator is on when the sensor detects an animal.



Twenty-button keypad

The scale head has a 20-button keypad that allows you to scroll through the menus and operate the control. Each time you press a button the E-GATE makes a "beep".



- Press **0** to **9** to enter information or settings.
- Press **Up** or **Down** (**^** or **v**) to scroll through the menus, select options, or increase/decrease values.
- Press **Left** or **Right** (**<** or **>**) to move the cursor, or to move between options on the screen.
- Press **Enter** to select an item or perform a task on the screen.
- Press **Escape** (**ESC**) to display the menu or return to the previous screen.
- Press the function buttons (**F1** to **F4**) move between different screens, or display additional information noted on the display.



Use your fingers to press the buttons on the keypad. Using sharp objects such as pens or pencils can damage the cover label and/or buttons.
If the label gets a hole in it, replace it immediately.

Entering text and special characters

The following characters are available.

- Numbers: 0123456789
- Lowercase letters: a b c d e f g h i j k l m n o p q r s t v w x y z
- Uppercase letters: A B C D E F G H I J K L M N O P Q R S T V W X Y Z
- Special characters: ! " # \$ % & ' () * + , - . /

To enter text

Move the cursor to the desired position and then:

- To enter a number, press the corresponding button.
- To enter a letter, press the corresponding button until you see the letter you want displayed. For example, to enter "Y", press **9** four times. Press **F1** to switch between lower and uppercase.
- To enter special characters, press **Up** or **Down** until you see the character you want displayed

Entering a password

The Advanced menu is protected by a password security system. To access the Advanced menu, you must enter your four-digit password.

DO ADVANCED SETUP?

ENTER PASSWORD XXXX

When prompted for your password, press the corresponding numbers on the keypad.

Scale head menus

E-GATE has two menus.

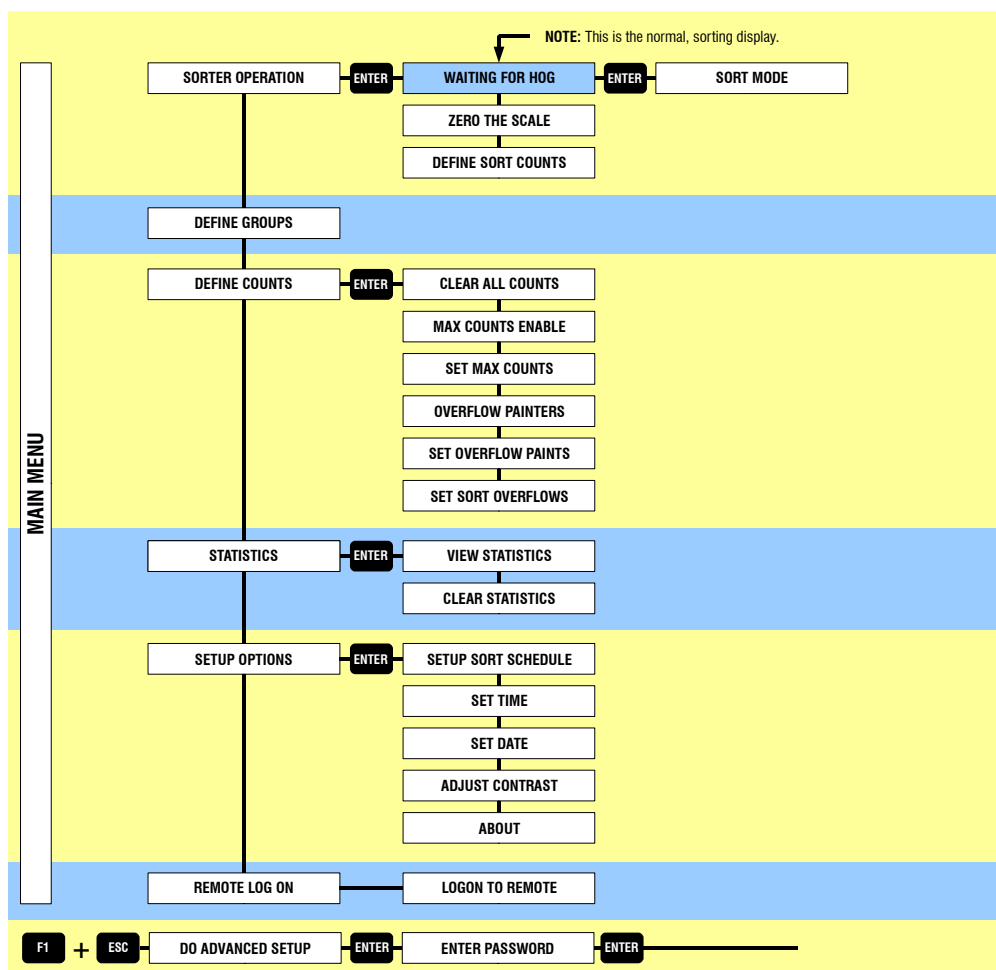
- **Main menu** – to get to the Main menu, press **ESC** from the normal/sorting screen.
- **Advanced menu** – to get to the Advanced menu, press **F1** and **ESC** from the Main menu. You will have to enter your password to access the Advanced menu.



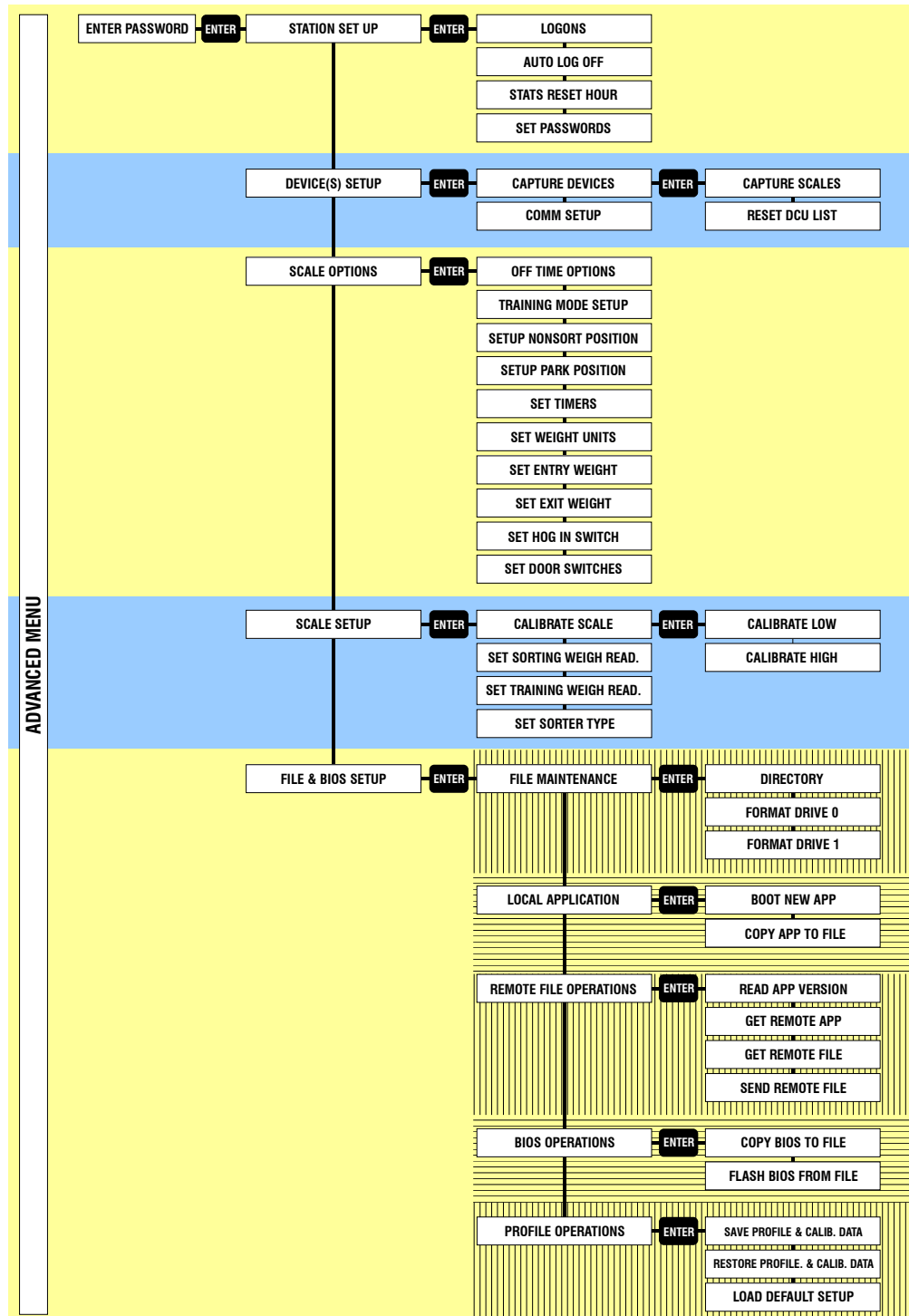
If E-GATE is in any screen other than the normal (sorting) display screen and 20 no button has been pressed for two minutes, E-GATE returns to the normal display.

Main menu

To get the Main menu from the normal/sorting display screen, press **ESC**.



Advanced menu

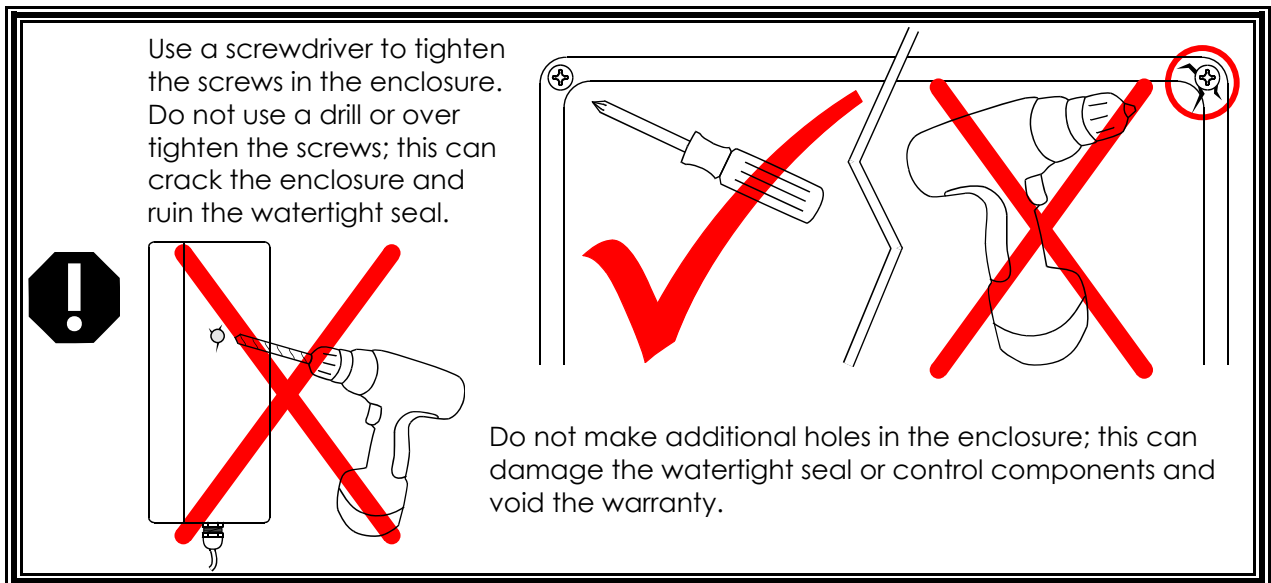


Installing E-GATE

Read the installation section *before* installing E-GATE system and then follow the steps in the order they are listed.

Warnings and installation notes

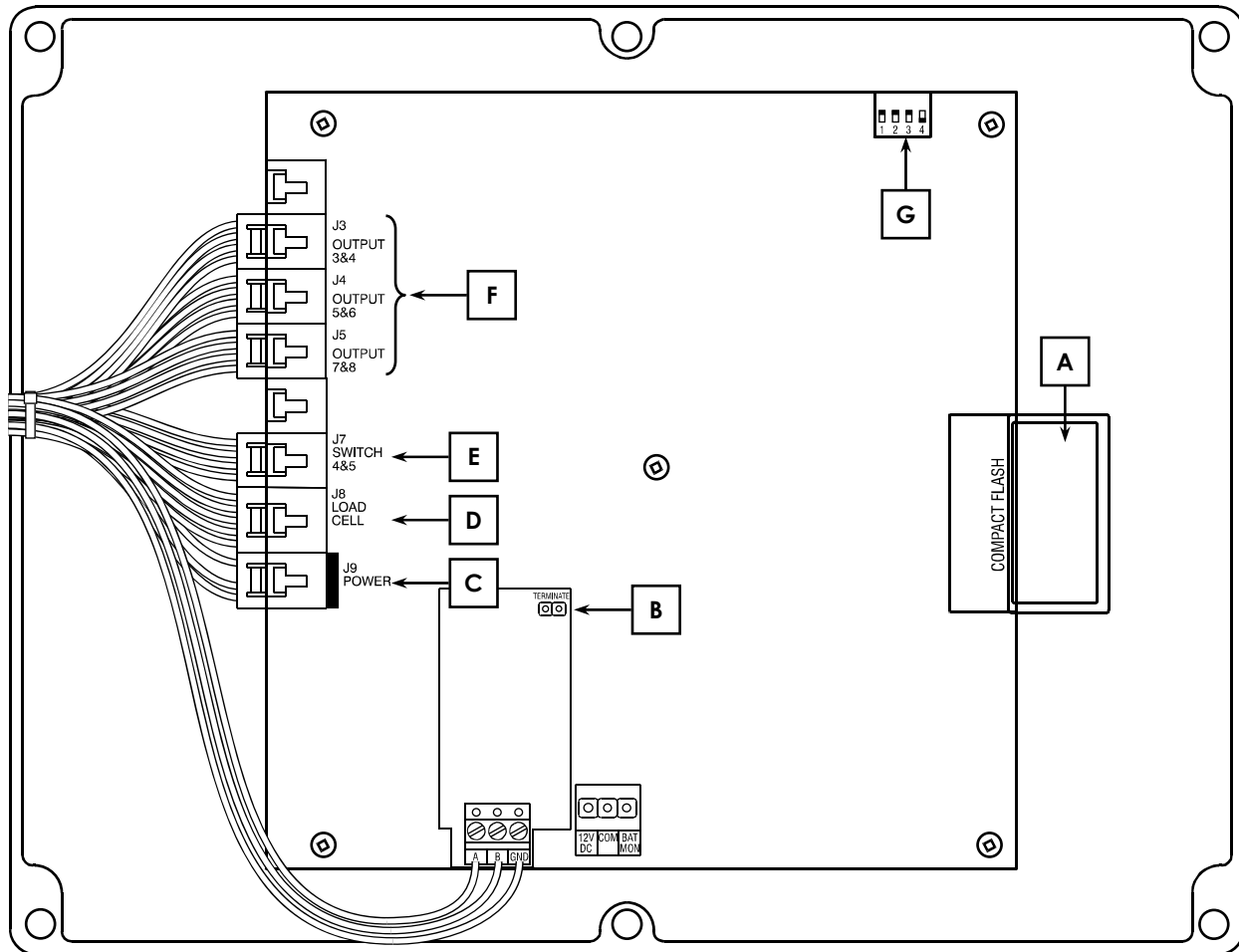
- See **Connecting the air intake and exhaust** on page 13 for additional air supply quality warnings.
- See **Maintaining the scale head** on page 83 for cleaning and maintenance procedures.



Ratings

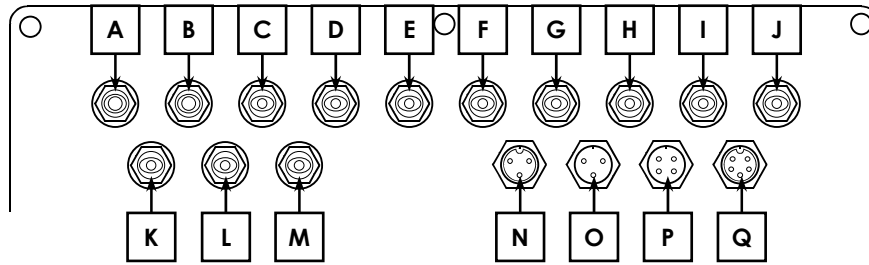
- Input power: 12 to 14 VDC, 800 mA
- Input air pressure: 2.4 cfm at 70 psi (at the sorter)

Scale head layout



- A CompactFlash card/connector** – the CompactFlash card plugs into the socket under the circuit board.
- B Communication module** – the wires connect to the external communication connector. For more information, read **Installing communication kits** on page 17
- C Internal power connector** – the wires connect to the external power connector. For more information, read **Connecting the DC power supply** on page 19.
- D Internal load cell connector** – the wires connect to the external load cell connector. For more information, read **Connecting the load cell** on page 12.
- E Internal sensor connector** – the wires connect to the external sensor connector. For more information, read **Connecting the gate and hog in sensors** on page 12.
- F Solenoid/valve bank connectors** – the wires connect to the solenoids.
- G Configuration switches** – unless instructed by a service technician, leave the switches in their factory-set positions.

Scale head exterior connections



- A** **Air intake connector** – connect a hose from the regulator to this connector.
- B** **Air exhaust connector** – connect an exhaust post to this connector.
- C** **Left gate rod connector (3-way)** – connect the hose from the left sort gate rod to this connector.
- D** **Left gate cylinder connector (3-way)** – connect the hose from the left sort gate cylinder to this connector.
- E** **Sort gate rod connector (2-way)** – connect the hose from the sort gate rod to this connector.
Right gate rod connector (3-way) – connect the hose from the right sort gate rod to this connector.
- F** **Sort gate cylinder connector (2-way)** – connect the hose from the sort gate cylinder to this connector.
Right gate cylinder connector (3-way) – connect the hose from the right sort gate cylinder to this connector.
- G** **Exit gate rod connector** – connect the hose from the exit gate rod to this connector.
- H** **Exit gate cylinder connector** – connect the hose from the exit gate cylinder to this connector.
- I** **Entry gate rod connector** – connect the hose from the entry gate rod to this connector.
- J** **Entry gate cylinder connector** – connect the hose from the entry gate cylinder to this connector.
- K** **Painter 3 connector (2-way sorters only)** – if you are using a third painter, connect the hose from the number three painter to this connector
- L** **Painter 2 connector** – if you are using a second painter, connect the hose from the number two painter to this connector
- M** **Painter 1 connector** – connect the hose from the number one painter to this connector.
- N** **Power connector** – connect the power cable from the 12 VDC power supply to this connector.
- O** **Communication connector** – if you have more than one scale head and are connecting them in a network, connect the communication cable to this connector. If you are not connecting multiple scale heads, place the over the connector.
- P** **Sensor connector** – connect the cable from the sensors (hog in, entry gate, and exit gate) to this connector.
- Q** **Load cell connector** – connect the cable from the load cell to this connector.

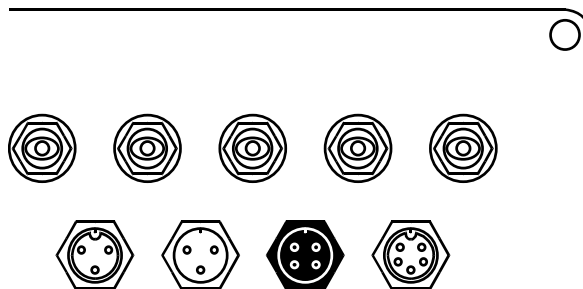
Connecting the sensors to the scale head

The sensors on the sorter include the entry gate, exit gate, and hog in sensors, and the load cell (scale).

Connecting the gate and hog in sensors

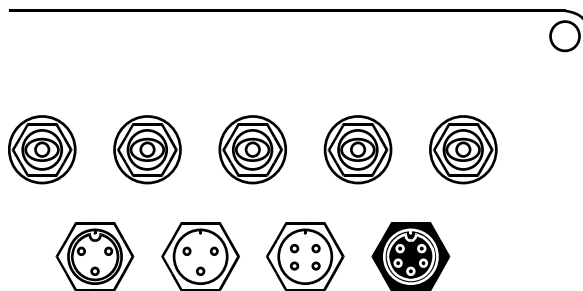
The entry and exit gate sensors let the scale head know if the gate is open or closed. The hog in sensor lets the scale head know if there is an animal on the scale.

On the sorter, the entry gate, exit gate, and hog in sensors are wired into one cable. Connect the sensor cable to the scale head connector shown below.



Connecting the load cell

The scale head reads the weights of the animals from the load cell. Connect the load cell cable to the scale head connector shown below.



Connecting equipment to the solenoid

Connecting equipment to the solenoid includes connecting the air intake and exhaust, gates, and painter(s). The sorter equipment connects to the solenoid using hoses. The hoses supply air to the gates and painter(s) for operating the equipment.

Connecting the air intake and exhaust

The air intake hose connects to the regulator and supplies air to the solenoid.

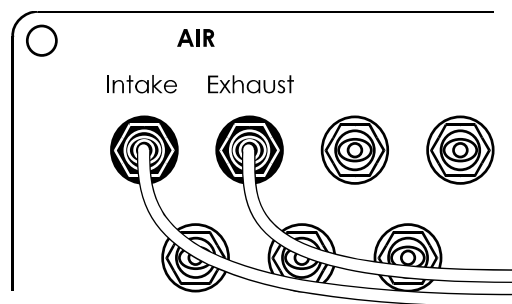
The exhaust hose exhausts the air from the solenoid. The exhaust hose prevents dust and moisture from entering the enclosure through the connector. Connect a 6 to 12-inch piece of hose to the connector and then place the end of the hose where it will not collect moisture.

Failure to follow the warnings and instructions below can lead to damage to the solenoid. Evidence of solenoid damage due to poor air quality or incorrect installation will void the warranty.



- ◇ The air used to supply pressure to the solenoids **MUST** be clean, dry air.
- ◇ Install an air filter upstream from the solenoid. The filtration degree of the filter must be 5 µm or less.
- ◇ Install an air dryer, after cooler, or other drying device at the air supply source to prevent excessive moisture damage to the solenoid.
- ◇ Remove any water or condensation from the regulator, air supply hoses, and air filter regularly. Evidence of solenoid damage due to moisture will void the warranty.
- ◇ Air pressure at the regulator must be 2.4 cfm at 70 psi.

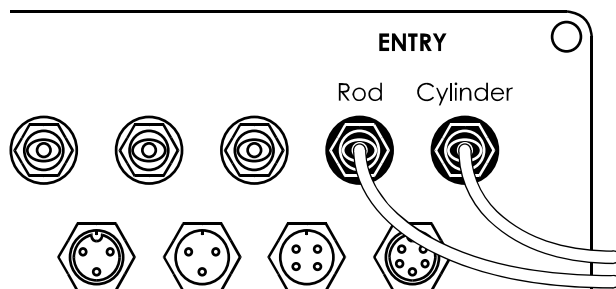
Connect the air hoses to the scale head as shown below.



Connecting the entry gate hoses

The entry gate closes after the animal enters the scale and then opens after the animal exits the sorter.

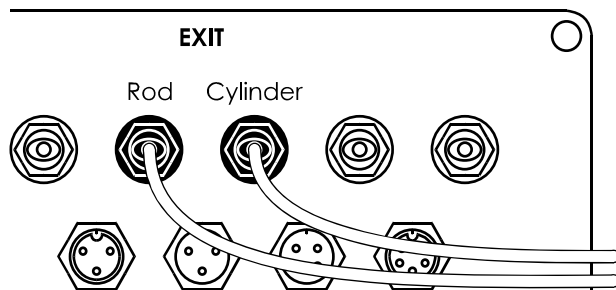
Connect the entry gate hoses to the scale head as shown below.



Connecting the exit gate hoses

The exit gate opens after the animal has been weighed and then closes after the animal exits the sorter.

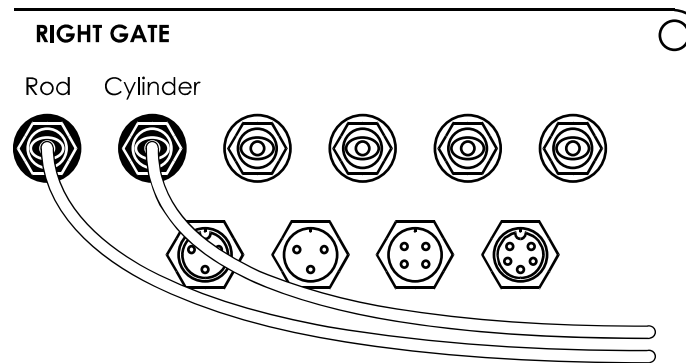
Connect the exit gate hoses to the scale head as shown below.



Connecting the right gate hoses

The right gate is for *3-way sorters only*. For 2-way sorters, read **Connecting the sort gate hoses** on page 16.

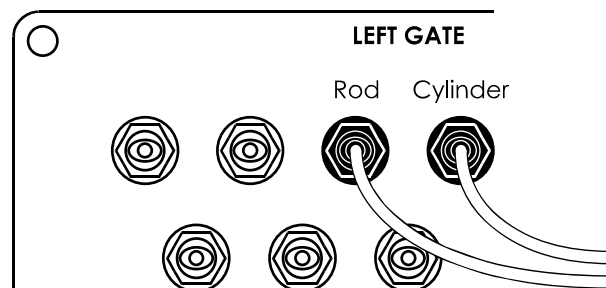
Connect the right-side sort gate hoses to the scale head as shown below.



Connecting the left gate hoses

The left gate is for *3-way sorters only*. For 2-way sorters, read **Connecting the sort gate hoses** on page 16.

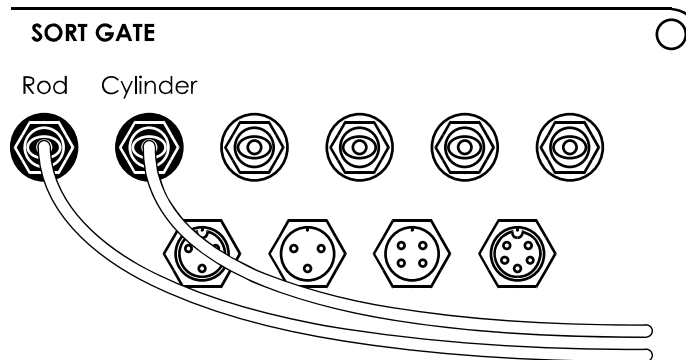
Connect the left-side sort gate hoses to the scale head as shown below.



Connecting the sort gate hoses


The sort gate is for *2-way sorters only*. For 3-way sorters, read **Connecting the right gate hoses** on page 15 or **Connecting the left gate hoses** on page 15.

Connect the sort gate hoses to the scale head as shown below.

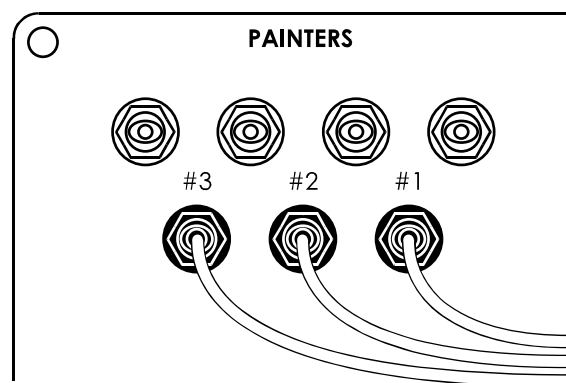


Connecting the painter hoses

Painters allow you to spray paint on animals, depending how you program the settings.

 Painter #3 is available for 2-way sorters only.

Connect the painter hose(s) to the solenoid as shown below.



Installing communication kits

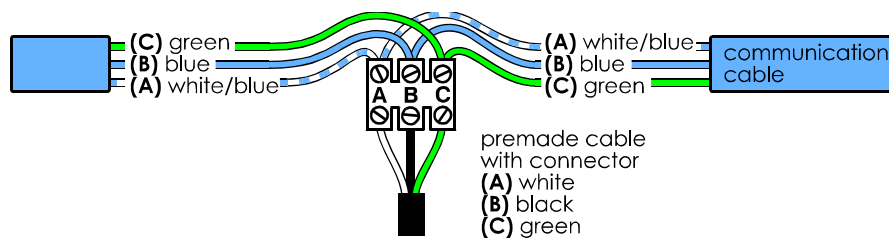
Connecting scale heads together in a network requires an E-GATE communication kit. You will need one kit for each scale head. For more information, contact your dealer.

The communication kit includes a prewired cable that plugs into the back of the scale head. The communication cable (UTP CAT3 or CAT5) connects to the terminal strip inside the kit enclosure. The kit comes with two strain reliefs for bringing communication cable into the enclosure.

Connecting the communications

Follow the guidelines below when connecting the communication kits.

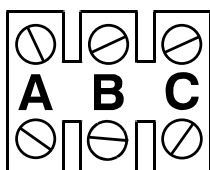
- **Use the correct type of communication cable** – the communication cable must be unshielded twisted pair (UTP) cable, category 3 (CAT3) or category 5 (CAT5). Crystal Spring Hog Equipment does not recommend other types of wire.
- **Continue the communication wiring properly** – all the devices on the communication channel must be connected in series and the wire must be continued properly from one device to the next as shown below.



- **Terminate the scale heads at the ends of the communication line** –the first and last scale heads on the communication line must be terminated.

Terminating the device means placing the **TERMINATE** jumper, located inside the scale head, on both pins. All devices in between the first and last devices must have the jumper on only one pin. When the scale head is shipped from the factory, the jumper is only on one pin. For the location of the jumper, read **Scale head layout** on page 10.

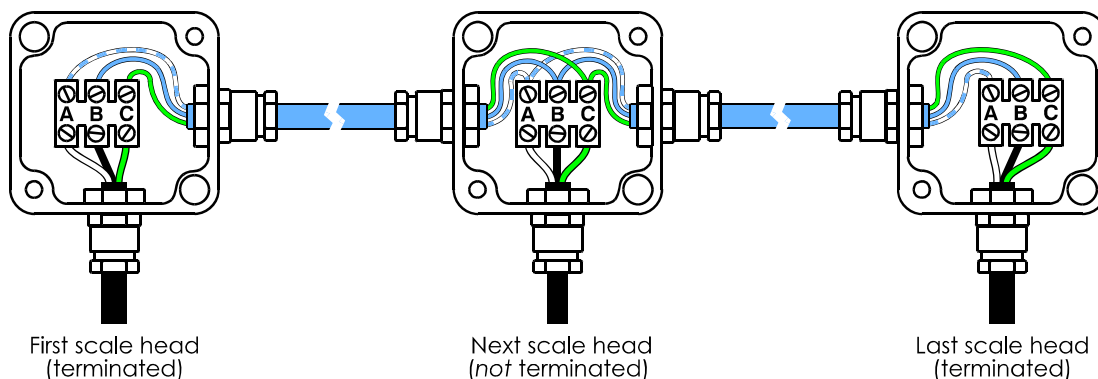
- **Do not run the communication cable in the same conduit as, or beside AC power cables** – routing communication cable in the same conduit as, or beside AC power cables, can cause electrical interference and communication failures. Follow the guidelines below when routing communication cable.
 - Do not run the cable in the same conduit as AC power cables.
 - Do not run the cable beside AC power cables or near electrical equipment.
 - When crossing other cables or power lines, cross them at a 90-degree angle.
- **Use consistent wiring** – consistent wiring helps eliminate communication connection errors and makes troubleshooting much easier. Use the following wire colors when connecting all scale heads.



Position/function	Cable from scale head	Communication cable
A transmit/TX	A white	A white/blue
B receive/RX	B black	B blue
C reference	C green	C green

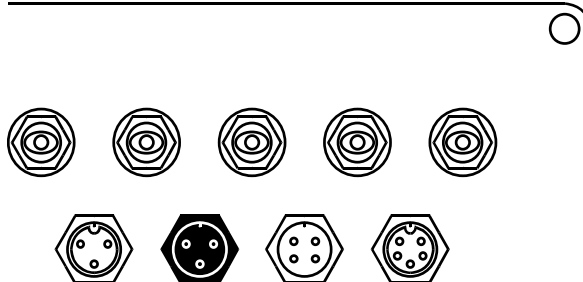
To connect communication wiring

1. Connect the kit for each scale head as shown below.



- The first scale head connects as shown on the left. You must place the **TERMINATE** jumper on *both* pins inside the scale head enclosure.
- The last scale head connects as shown on the right. You must place the **TERMINATE** jumper on *both* pins inside the scale head enclosure.
- All other scale heads connect as shown in the middle.
- The strain reliefs require a 1/2-inch hole. Drill only as many holes as you need. If you will be bringing only one communication cable into the enclosure, drill only one hole.

2. Fasten each kit enclosure to a stable surface, where it and the cables will be out of the reach of animals.
3. Connect each kit to the back of the appropriate scale head at the location shown below.

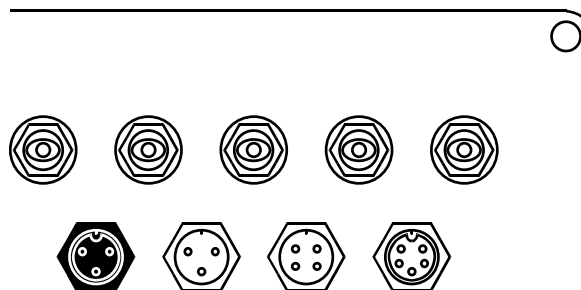


Connecting the DC power supply

The E-GATE power supply provides 800 mA of power at 12 VDC. Use only the E-GATE power supply to power the scale head; do not use other power supplies.

Do not connect the power supply to a 115 VAC source until you are sure all equipment is properly installed and connected.

Connect the power supply to the scale head as shown below.



Finishing the installation

1. Make sure all equipment is properly installed and connected to the correct locations.
2. Connect the power supply to a 115 VAC source.
3. Verify all equipment functions properly (see the following tip).



- ◇ The scale head's manual mode can help you test the equipment and installation. You do not need to configure or program any settings before using Manual mode. For more information, read **Using manual mode** on page 42.
- ◇ For care and maintenance requirements, read **Maintaining the scale head** on page 83.

Configuring E-GATE

After installing the sorter and E-GATE, and before you can sort animals, you need to configure the system. There are two topics in this section.

- **Configuring the sorting system** (starting below)
- **Configuring communication and remote options** (starting on page 32)

Configuring the sorting system

Configuring the sorting system means configuring several items that need to be done only once at the beginning, such as selecting a two-way or three-way system, or very rarely, such as enabling or disabling switches.

- **Configuring the default gate positions** below
- **Configuring the sorter type** on page 22
- **Configuring sorting weigh readings** on page 23
- **Configuring training weigh readings** on page 24
- **Enabling or disabling the hog in sensor** on page 25
- **Enabling or disabling the gate** on page 25
- **Configuring the exit weight** on page 26
- **Configuring the entry weight** on page 27
- **Configuring weight units** on page 28
- **Configuring scale timing** on page 28
- **Configuring the park position** on page 30
- **Configuring the non-sort position** on page 31

Configuring the default gate positions

The first thing to do after installing the sorter is configure the default gate positions. The default gate positions are the positions the gates are in when there is no power to the sorter.

The entry and exit gates must be open and the sort gate(s) should direct animals so that sorted and unsorted animals do not mix, and so that any one pen will not become overcrowded.

To configure the default gate positions

1. Make sure the air supply is connected and then unplug the power supply.
2. Make sure the entry and exit gates are open. If either gate is not open, switch the hoses around for that gate.
3. Switch the hoses around until the sort gate(s) are in the desired positions.
4. When all gates are in the correct positions, reconnect the power supply.

Configuring the sorter type

The sorter type lets E-GATE know if it is controlling a two-way or a three-way sorter. The default sorter type is *two-way*.



The sorter type configuration must match the design of the sorter or E-GATE will not be able to control the sorter properly.

To configure the sorter type

1. On the Advanced menu, scroll to **SCALE SETUP** and then press **Enter**.
The **CALI BRATE SCALE** screen displays.
2. Scroll to **SET SORTER TYPE** and then press **Enter**.
The **SCALE TYPE** screen displays with the option flashing.

SCALE TYPE

2 WAY

The **X**s represent numbers.

3. Press **Up** or **Down** to change the configuration.

4. Press **Enter**.
The SET SORTER TYPE screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Configuring sorting weigh readings

Sorting weigh readings determines how many times E-GATE evaluates the weight on the scale before determining the weight. The higher the value, the more accurate the weight reading will be, and the longer it will take to determine the reading.

The default sorting weigh reading is 640. The default value gives excellent weighing results reasonably quickly.



The sorting weigh reading is for *sorting mode* only. For training mode, read **Configuring training weigh readings** on page 24.

To configure sorting weigh readings

1. On the Advanced menu, scroll to SCALE SETUP and then press **Enter**.
The CALI BRATE SCALE screen displays.
2. Scroll to SET SORTI NG WEI GH READI NGS and then press **Enter**.
The # OF READI NGS screen displays with the option flashing.

OF READI NGS

VALUE: XXX

The Xs represent numbers.

3. Press the number buttons to enter the value. You must enter the leading zeros. For example, if you want to enter 90, press **090**.
4. Press **Enter**.
The SET SORTI NG WEI GH READI NGS screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Configuring training weigh readings

Training weigh readings determines how many times E-GATE evaluates the weight on the scale before determining the weight. The higher the value, the more accurate the weight reading will be, and the longer it will take to determine the reading.

In training mode, speed and animal throughput is more important than the accuracy. A lower value will increase speed, but decrease accuracy.

The default training weigh reading is 640.



The training weigh reading is for *training mode* only. For sorting mode, read **Configuring sorting weigh readings** on page 23.

To configure training weigh readings

1. On the Advanced menu, scroll to **SCALE SETUP** and then press **Enter**.
The **CALIBRATE SCALE** screen displays.
2. Scroll to **SET TRAINING WEIGH READINGS** and then press **Enter**.
The **# OF READINGS** screen displays with the option flashing.

OF READINGS
VALUE: XXX

The **X**s represent numbers.

3. Press the number buttons to enter the value. You must enter the leading zeros. For example, if you want to enter 90, press **090**.
4. Press **Enter**.
The **SET TRAINING WEIGH READINGS** screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Enabling or disabling the gate sensors

You can enable or disable the entry and exit gate sensors. During normal operation, unless there is a problem with one of the sensors, they should be enabled. The default is *enabled*.

To enable or disable the gate sensors

1. On the Advanced menu, scroll to **SCALE OPTI ONS** and then press **Enter**.
The **OFF TI ME OPTI ONS** screen displays.
2. Scroll to **SET DOOR SWI TCHES** and then press **Enter**.
The screen displays with the option flashing.

```
SET DOOR SWI TCHES
      ENABLED
      STATUS ON
Entry ---- ---- Exit
```

The third line shows the status of the sensors.

Press **F1** to change the position of the entry gate.

Press **F4** to change the position of the exit gate.

3. Press **Up** or **Down** to change the configuration.
4. Press **Enter**.
The **OFF TI ME OPTI ONS** screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Enabling or disabling the hog in sensor

You can enable or disable the hog in sensor. During normal operation, unless there is a problem with the sensor, you should have it enabled. The default is *enabled*.

To enable or disable the hog in sensor

1. On the Advanced menu, scroll to **SCALE OPTI ONS** and then press **Enter**.
The **OFF TI ME OPTI ONS** screen displays.

2. Scroll to **SET HOG I N SWI TCH** and then press **Enter**.
The screen displays with the option flashing.

SET HOG I N SWI TCH
ENABLED
STATUS OFF

The third line shows the status of the sensors.

3. Press **Up** or **Down** to change the configuration.
4. Press **Enter**.
The **SET DOOR SWI TCHES** screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Configuring the exit weight

The exit weight determines the weight the scale must drop below before E-GATE can close the exit gate.

After a successful weight reading, the animal starts moving off the scale. When the weight reading drops below the exit weight value, E-GATE closes the exit gate.

The default exit weight is *10 pounds*; the range is *0 to 300 pounds*.

To configure the exit weight

1. On the Advanced menu, scroll to **SCALE OPTI ONS** and then press **Enter**.
The **OFF TI ME OPTI ONS** screen displays.
2. Scroll to **SET EXI T WEI GHT** and then press **Enter**.
The screen displays with the cursor flashing.

EXI T WEI GHT
VALUE: XXX I bs

The **X**s represent numbers.

3. Press the number buttons to enter the weight. You must enter the leading zeros. For example, if you want to enter 10 pounds, press **010**.

4. Press **Enter**.
The SET HOG I N SWI TCH screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Configuring the entry weight

The entry weight determines the minimum weight that must be on the scale before E-GATE can close the entry gate.

The entry gate closes only if the hog in switch detects an animal and the weight is over the entry weight. If the hog in switch detects an animal but the weight is not over the entry weight, the entry gate does not close.

The default entry weight is *50 pounds*; the range is *0 to 300 pounds*.

To configure the entry weight

1. On the Advanced menu, scroll to SCALE OPTI ONS and then press **Enter**.
The OFF TI ME OPTI ONS screen displays.
2. Scroll to SET ENTRY WEI GHT and then press **Enter**.
The screen displays with the cursor flashing.

ENTRY WEI GHT ENTER MI NI MUM WEI GHT FOR WEI GHI NG VALUE: XXX I bs

The Xs represent numbers.

3. Press the number buttons to enter the weight. You must enter the leading zeros. For example, if you want to enter 75 pounds, press **075**.
4. Press **Enter**.
The SET EXI T WEI GHT screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Configuring weight units

Configuring weight units means selecting whether E-GATE displays weights in pounds or kilograms. The default weight unit is *pounds*.

To configure weight units

1. On the Advanced menu, scroll to **SCALE OPTI ONS** and then press **Enter**.
The **OFF TI ME OPTI ONS** screen displays.
2. Scroll to **SET WEI GHT UNI TS** and then press **Enter**.
The screen displays with the cursor flashing.

WEI GHT UNI TS I bs

3. Press **Up** or **Down** to change the weight unit.
4. Press **Enter**.
The **SET ENTRY WEI GHT** screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Configuring scale timing

Scale timing determines how E-GATE operates the sorter equipment while weighing and sorting animals. There are five timers.

- Enter gate timer
- Exit gate timer
- Sort gate timer
- Hog exit timeout
- Paint timer

Enter gate timer

The enter gate timer determines the amount of time after an animal has been detected and the entry weight has been exceeded before E-GATE closes the entry gate and weighs the animal. The delay is to give the entry gate time to close before the weighing process begins.

Default: 2.0 seconds; Range: 0 to 120.0 seconds

Exit gate timer

The exit gate timer determines the amount of time after the weight drops below the exit weight setting before E-GATE closes the exit gate.

Default: 2.0 seconds; Range: 0 to 120.0 seconds

Sort gate timer

The sort gate timer determines the amount of time after a stable weight has been detected and processed before E-GATE opens the exit gate. The delay is to give the sort gate time to move into position before the exit gate opens.

Default: 2.0 seconds; Range: 0 to 120.0 seconds

Hog exit timeout

The hog exit timeout determines the amount of time E-GATE waits for an animal to leave after opening the exit gate. If the animal does not leave after the timeout, E-GATE closes and then re-opens the exit gate. The process repeats until the animal leaves.

Default: 180.0 seconds; Range: 0 to 600.0 seconds

Paint timer

The paint timer determines the amount of time E-GATE operates the painter when required.

Default: 0.5 seconds; Range: 0 to 5.0 seconds

To configure scale timing

1. On the Advanced menu, scroll to **SCALE OPTI ONS** and then press **Enter**.
The **OFF TI ME OPTI ONS** screen displays.
2. Scroll to **SET TI MERS** and then press **Enter**.

The ENTER GATE TI MER screen displays with the cursor flashing.

ENTER GATE TI MER
VALUE: XXX. X sec.

The Xs represent numbers.

3. Configure the timers.
 - a. Press **Enter** until the timer you want to configure is displayed.
 - b. Press the number buttons to enter the duration. You must enter the leading zeros. For example, if you want to enter 10 seconds, press **0100**.
 - c. Press **Enter**.
 - d. Repeat steps a to c for each timer you want to configure. After you have gone through all the timers, the SET WEI GHT UNI TS screen displays.
4. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Configuring the park position

The park position determines which position the sort gate moves to after the sorter has released a weighed animal.

The default park position is *left*.

To configure the park position

1. On the Advanced menu, scroll to SCALE OPTI ONS and then press **Enter**.
The OFF TI ME OPTI ONS screen displays.
2. Scroll to SETUP PARK POSI TI ON and then press **Enter**.
The SET DI RECTI ON screen displays with the option flashing.

SET DI RECTI ON FOR PARK POS. : LEFT
ENTER TO CONTI NUE

3. Press **Up** or **Down** to change the configuration.

4. Press **Enter** to save the change.
The SET TI MERS screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Configuring the non-sort position

The non-sort position lets E-GATE know how the air hoses are connected and is also the direction animals go when there is *no power* to the scale.

The default non-sort position is *left*.

To configure the non-sort position

1. On the Advanced menu, scroll to SCALE OPTI ONS and then press **Enter**.
The OFF TI ME OPTI ONS screen displays.
2. Scroll to SETUP NONSORT POSI TI ON and then press **Enter**.
The SET DI RECTI ON screen displays with the option flashing.

SET DI RECTI ON FOR
NONSORT POS. : LEFT

ENTER TO CONTINUE

3. Press **Up** or **Down** to change the configuration.
4. Press **Enter** to save the change.
The SETUP PARK POSI TI ON screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Configuring communication and remote options

If you have several E-GATEs at your site, you can connect them together in a network and communicate between them. This section contains the following topics.

- **Configuring the logon display options** (below)
- **Enabling or disabling auto log off** (on page 33)
- **Capturing remote E-GATEs** (on page 34)
- **Resetting the list of captured scale heads** (on page 35)
- **Setting communication options** (on page 36)

Configuring the logon display options

There are four logon options.

- **Shared** – the **ENTRY** LED is lit on both E-GATEs. Both scale heads can operate at the same time. What you do at one scale head, displays on the other.
- **Shown** – the **ENTRY** LED is lit on both E-GATEs. What you do at the local scale head, displays on the remote. All buttons are disabled on the remote scale head.
- **Hidden** – the **ENTRY** LED is *not* lit on the remote E-GATE. All buttons are disabled on the remote scale head.

```

** LOGON RUNNING **
LOGON FROM: FE: (ADR)
            USER: (USR)
LOGON TIME: (TIME)

```

The **(ADR)** represents the address of the sorter.

The **(USR)** represents the user number.

The **(TIME)** represents the time in hh:mm:ss.

- **Disabled** – remote logons are not allowed.

The default logon option is *shared*.

To change the logons option

1. On the Advanced menu, scroll to **STATI ON SETUP** and then press **Enter**.
The **LOGONS** screen displays.

LOGONS
SHARED

2. Press **Enter**.
The option line flashes.
3. Press **Up** or **Down** to change the option
4. Press **Enter** to save the change.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Enabling or disabling auto log off

The auto log off option determines how the E-GATE logs off from a remote device.

- **Enabled** – the E-GATE automatically logs off from a remote after a timeout period.
- **Disabled** – the E-GATE stays logged on until you manually log off by pressing the **1** and **Escape** buttons.

The default is *enabled*.

To change the auto log off option

1. On the Advanced menu, scroll to **STATI ON SETUP** and then press **Enter**.
The **LOGONS** screen displays.
2. Scroll to **AUTO LOG OFF** and then press **Enter**.
The option line flashes.

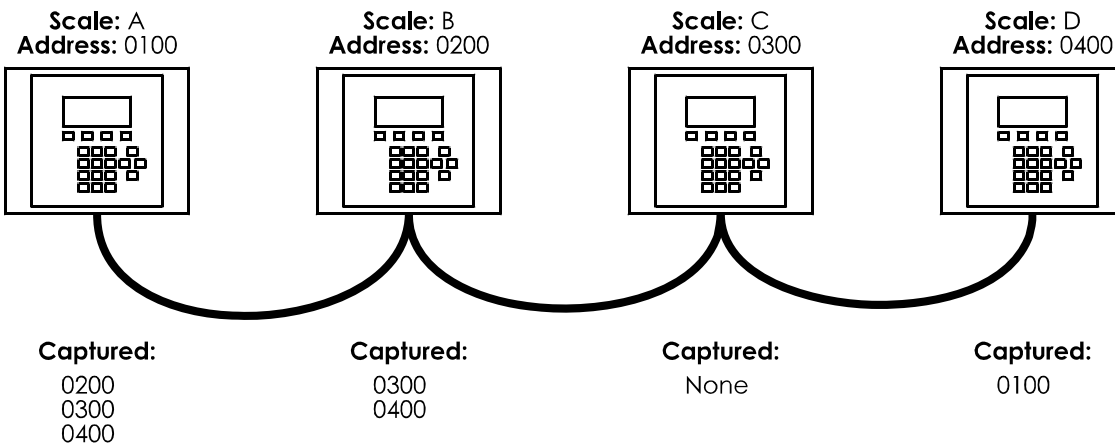
AUTO LOG OFF
ENABLED

3. Press **Up** or **Down** to change the option and then press **Enter**.
4. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Capturing remote E-GATES

Capturing remote E-GATES allows you to communicate with them. When you have multiple E-GATES connected together, you must capture the remote scale heads so that you can transfer files and log into them.

For example, let's say you have four scales at your site, configured as shown in the following diagram.



- Scale A will be able to log into and transfer files to and from scales B, C, and D.
- Scale B will be able to log into and transfer files to and from scales C and D.
- Scale C will not be able to log into and transfer files to and from any scales.
- Scale D will be able to log into and transfer files to and from scale A.

To capture remote scale heads

1. On the Advanced menu, scroll to DEVI CE (S) SETUP and then press **Enter**.
The CAPTURE DEVI CES screen displays.

```
CAPTURE DEVI CES
```

2. Press **Enter**.
The CAPTURE SCALES screen displays.
3. Press **Enter**.
The SCANNI NG. . . screen displays while E-GATE searches for devices.

```
SCANNI NG. . . XXX FOUND  
XXX NEW UNI NSTALLED  
XXX DEVI CES LOST  
ENTER TO CONTINUE
```

The Xs represent numbers.

When finished, the screen looks similar to the following example.

```
DONE      XXX FOUND  
XXX NEW UNI NSTALLED  
XXX DEVI CES LOST  
ENTER TO CONTINUE
```

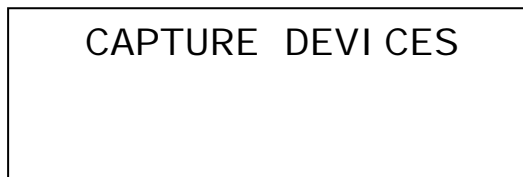
4. Press **Enter** to return to the CAPTURE DEVI CES screen.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Resetting the list of captured scale heads

Resetting the list of captured scale heads erases all remote scale head addresses from memory. After resetting the list, if you want to communicate with remote scale heads, you will have to recapture them.

To reset the list of captured devices

1. On the Advanced menu, scroll to DEVI CE (S) SETUP and then press **Enter**.
The CAPTURE DEVI CES screen displays.



2. Press **Enter**.
The CAPTURE SCALES screen displays.
3. Scroll to RESET DCU LI ST and then press **Enter**.
E-GATE resets the list and then displays the CAPTURE DEVI CES screen.
4. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Setting communication options

Setting communication options means setting the communication mode and the address of the scale head.

Communication mode

There are three options for the communication mode.

- **Normal** – the control is online and can be accessed remotely. Normal is the default mode.
- **Off-line** – the control is off-line and *cannot* be accessed remotely.
- **Promiscuous** – the control receives and processes all commands, even commands sent to other devices. Promiscuous as a diagnostic setting you should not normally use.

Addresses

Addresses are in the form $\times\times 00$, where \times is either a number 0 to 9, or a letter A to F. Each scale head connected in a network must have a unique address.

To set communication options

1. On the Advanced menu, scroll to DEVI CE (S) SETUP and then press **Enter**.
The CAPTURE DEVI CES screen displays.
2. Scroll to COMM SETUP and then press **Enter**.
The communication options screen displays.

MODE	NORMAL
NETWORK ADDRESS	XX00

The **X**s represent numbers 0 to 9 or letters A to F.

3. Press **Enter**.
The mode option flashes.
4. To change the communication mode, press **Up** or **Down**.
5. To change the address:
 - a. Press **Right** to move the cursor to the first address position.
 - b. Press **Up** or **Down** to change the digit, or press the number buttons to enter numbers 0 to 9.

If you press **2** or **3** multiple times, the display scrolls through the letters and numbers. For example, if you press **2** repeatedly, the display shows 2, then A, then B, then C, and then repeats the process.
6. When finished, press **Enter** to save any changes.
7. To return to the Advanced menu, press **Escape** two times. To return to the Main menu, press **Escape** four times.

Using E-GATE

The following main topics are in this section:

- **Available sort modes** below
- **Other sorting options** on page 44
- **Viewing statistics** on page 52

Available sort modes

E-GATE functions differently during the weighing and sorting process depending which sort mode you use. There are three sort modes.

- **Automatic mode** (on page 40) is the "normal" mode, the one you use for automatically sorting animals.
- **Manual mode** (on page 42) is the mode you use for testing equipment or manually sorting animals.
- **Training mode** (on page 43) is the mode you use to get new animals used to moving through the sorter.

Changing sort modes

As animals cycle through your facility, your sorting needs change.

- When new animals come into the facility, you can use training mode.
- As animals grow or are ready for shipping, you can use automatic mode.
- If you need to test equipment or manually sort animals, you can use manual mode.

To change the sort mode

1. On the Main menu, scroll to **SORTER OPERATION** and then press **Enter**.
 - If you are currently in automatic mode, the **WAITING FOR HOG** screen displays.
 - If you are currently in manual mode, the **MANUAL WEIGHING** screen displays.
 - If you are currently in training mode, the **TRAINING MODE** screen displays.
2. Press **Enter**.
The **SORT MODE** screen displays the current mode.
3. Press **Enter**.
The option flashes.
4. Scroll to the mode you want to use and then press **Enter**.
5. Press **Escape** two times to return to the Main menu.

Using automatic mode

Automatic mode is the "normal" mode and the one you should use after training has been completed. Automatic mode is for sorting animals for shipping or phase feeding.



When using automatic mode, you must also define the sort groups. For more information, read **Defining sort groups** on page 44.

When using automatic mode, you can use the following options.

- **Maximum counts** - For more information, read **Enabling, disabling, and setting maximum counts** on page 49.
- **Sort schedule** - For more information, read **Setting up a sort schedule** on page 46.
- **Statistics** - For more information, read **Viewing statistics** on page 52.

A description of the weighing and sorting process in automatic mode

1. There is no animal on the scale. The entry gate is open, the exit gate is closed, and the sort gates are in the park position. E-GATE displays the **WAITING FOR HOG** screen.

```

WAITING FOR HOG
L: XXXX M: XXXX R: XXXX
WEIGHT:   XXX lbs
More Entry Exit Sort

```

The **X**s represent numbers.

2. An animal that exceeds the entry weight steps on the scale. The **HOG IN** indicator lights up and the entry gate closes. E-GATE displays the **WEIGHING HOG** screen.

```

WEIGHING HOG

CURRENT:   XXX lbs
More Entry Exit Sort

```

3. E-GATE weighs the animal, positions the sort gates, and then opens the exit gate. E-GATE displays the **WAITING FOR HOG TO LEAVE** screen.

```

WEIGHT:   XXX lbs
WAITING FOR
HOG TO LEAVE
More Entry Exit Sort

```

4. After the animal has left the sorter (the weight has fallen below the exit weight setting), E-GATE closes the exit gate and opens the entry gate. E-GATE displays the **WAITING FOR HOG** screen.

About the automatic mode display

Gate control screen

```

WAITING FOR HOG
L: XXXX M: XXXX R: XXXX
WEIGHT:   XXX lbs
More Entry Exit Sort

```

Press **F1** to display the painter screen.

Press **F2** to change the position of the entry gate.

Press **F3** to change the position of the exit gate.

Press **F4** to change the position of the sort gate.

- The **L/M/R** (**LEFT/RIGHT** for two-way sorters) values display the number of animals sorted in each direction since the counts were reset. For more information about counts, read **Viewing and clearing counts** on page 48.
- The **WEIGHT** value displays the current weight on the scale.

Painter screen

```

  WAITING FOR HOG
L: XXXX M: XXXX R: XXXX
  WEIGHT:   XXX lbs
More ---- Pnt2 Pnt3

```

Press **F1** to return to the gate control screen.

Press **F2** to operate painter 1 (two-way sorter only).

Press **F3** to operate painter 2.

Press **F4** to operate painter 3.

Using manual mode

Manual mode allows you to override the E-GATE settings and is useful for performing maintenance or testing equipment. You can also use manual mode for manually weighing, where you usher animals into the scale and then press the buttons to paint, log, and control the gates.

About the manual mode display

Gate control screen

```

  MANUAL WEIGHING
      XXX lbs
More Entry Exit Sort

```

Press **F1** to display the painter screen.

Press **F2** to change the position of the entry gate.

Press **F3** to change the position of the exit gate.

Press **F4** to change the position of the sort gate.

Painter screen

```

  MANUAL WEIGHING
      XXX lbs
More ---- Pnt2 Pnt3

```

Press **F1** to return to the log screen.

Press **F2** to operate painter 1 (two-way sorter only).

Press **F3** to operate painter 2.

Press **F4** to operate painter 3.

Log screen

```

  MANUAL WEIGHING
      XXX lbs
More ---- ---- Log

```

Press **F1** to return to the gate control screen.

Press **F4** to delete log the sort record.

Using training mode

Training mode allows new animals to get used to moving through the sorter when sorting by weight is not required.



When using training mode, you must also set the training mode counts. For more information, read **Setting training mode counts** on page 45.

When using training mode, you can use the following options.

- **Maximum counts** - For more information, read **Enabling, disabling, and setting maximum counts** on page 49.
- **Sort schedule** - For more information, read **Setting up a sort schedule** on page 46.
- **Statistics** - For more information, read **Viewing statistics** on page 52.

About the training mode display

Gate control screen

```

TRAINING MODE
L: XXXX M: XXXX R: XXXX
WEIGHT:   XXX lbs
More Entry Exit Sort
    
```

Press **F1** to display the painter screen.

Press **F2** to change the position of the entry gate.

Press **F3** to change the position of the exit gate.

Press **F4** to change the position of the sort gate.

- The L/M/R (LEFT/RIGHT for two-way sorters) values display the number of animals sorted in each direction since the counts were reset. For more information about counts, read **Viewing and clearing counts** on page 48.
- The WEIGHT value displays the current weight on the scale.

Painter screen

```

WAITING FOR HOG
L: XXXX M: XXXX R: XXXX
WEIGHT:   XXX lbs
More ---- Pnt2 Pnt3
    
```

Press **F1** to return to the gate control screen.

Press **F2** to operate painter 1 (two-way sorter only).

Press **F3** to operate painter 2.

Press **F4** to operate painter 3.

Other sorting options

There are several other options you can set up.

- Defining sort groups for automatic mode below
- Setting training mode counts on page 45
- Setting up a sort schedule on page 46
- Setting off-time positions on page 47
- Viewing and clearing counts on page 48
- Enabling, disabling, and setting maximum counts on page 49
- Setting sort overflows on page 50
- Enabling, disabling, and setting overflow painters on page 51

Defining sort groups for automatic mode

When using automatic mode, you need to define the sort groups. You can define up to nine sort groups. Each group has settings that determine how E-GATE should direct and/or paint an animal going through the sorter.

A sort group includes the following.

- **Direction** – the direction E-GATE should sort the animal.
- **Painter 1** – whether or not E-GATE should operate painter 1. *Painter 1 is not available for three-way sorters.*
- **Painter 2** – whether or not E-GATE should operate painter 2
- **Painter 3** – whether or not E-GATE should operate painter 3
- **Weight range** – the weight of animals E-GATE should sort in the group. The maximum weight you set for one group is the minimum weight for the following group. For example, if you set the maximum weight for group 2 at 200 pounds, the minimum weight for group 3 is 200 pounds.

To define groups

1. On the Main menu, scroll to **DEFI NE GROUPS** and then press **Enter**.
The **GROUP 1** screen displays with direction setting flashing.

```
GROUP 1  DIR:  RIGHT
P1: N/A  P2: N      P3: N
RANGE:   0: XXX lbs
----- Prev Next
```

The **Xs** represent numbers.

Press **Left** or **Right** to move the cursor.

Press **F3** to scroll backward through the groups.

Press **F4** to scroll forward through the groups.

2. Scroll to a group you want to define by pressing **F3** or **F4**.
3. Define the group settings.
 - Press **Left** or **Right** to change the cursor position.
 - Press **Up** or **Down** to change an item, or press the number buttons to enter the weight. You must enter the leading zeros. For example, if you want to enter 75 pounds, press **075**.
4. Repeat steps 2 and 3 for each group you want to define.
5. When finished, press **Escape** to return to the Main menu.

Setting training mode counts

Training mode allows you to sort proportionally instead of by weight. For training mode, you set the animal count for each direction—left and right for two-way sorters; left, right, and middle for three-way sorters. The counts can be anywhere from 0 to 1000.

For example, if you have a three-way sorter and set the counts to 5 for left, 5 for right, and 10 for middle, E-GATE will sort the first 5 animals left, the next 5 animals right, the next 10 animals straight, and then repeat the process.

The default count is *5 in each direction*.

To set training mode options

1. On the Advanced menu, scroll to **SCALE OPTI ONS** and then press **Enter**.
The **OFF TI ME OPTI ONS** screen displays.
2. Scroll to **TRAI NI NG MODE SETUP** and then press **Enter**.

The cursor flashes in the left count position.

```

TRAINING MODE SETUP
LEFT COUNT:  XXXX
RIGHT COUNT:  XXXX
MIDDLE COUNT:  XXXX
  
```

The **X**s represent numbers.

If you are using a two-way sorter, only left and right display; there is no middle.

3. Set the training mode counts.
 - a. Press the number buttons to enter the number of animals (0 to 999). You must enter all four digits. For example, to enter an animal count of 10, press **0010**.
 - b. Press **Enter**.
 - c. Repeat steps a and b for each direction.
4. When finished, press **Enter** to save any changes.
5. To return to the Advanced menu, press **Escape** two times. To return to the Main menu, press **Escape** four times.

Setting up a sort schedule

E-GATE has a 7-day, 24-hour timer you can program. Using the timer you can set up a schedule of active and in active times and/or days. For example, while training small animals, you might want to disable sorting in the evenings and on weekends when no one is available to monitor operations.

For each day of the week, you can program start and end times, or disable sorting for the entire day.

To set up a sort schedule

1. On the Main menu, scroll to **SETUP OPTI ONS** and then press **Enter**.
The **SETUP SORT SCHEDULE** screen displays.
2. Press **Enter**.
The scheduling screen displays with the enabled/disabled option flashing.

```

(DAY)      ENABLED
START TIME: (TIME)
STOP  TIME: (TIME)
----  ----  Prev Next
  
```

The **(DAY)** represents the day of the week.
The **(TIME)** represents the time of day in hh:mm.
Press **F3** to scroll backward through the days.
Press **F4** to scroll forward through the days.

3. Press **F3** or **F4** to scroll to the day you want to set up.

4. Make the changes for the day.
 - Press **Left** or **Right** to move the cursor.
 - Press **Up** or **Down** to change the status or time.
5. Press **Enter**.
6. Repeat steps 3 to 5 for each day you want to set up.
7. Press **Escape** two times to return to the Main menu.

Setting off-time positions

If you set up a sort schedule, you also need to set up the off-time positions. The off-time positions determine the position of the entry and exit (direction) gates during off hours.

The default for direction is *right*, and the default for entry gate is *closed*.

To set the off-time positions

1. On the Advanced menu, scroll to **SCALE OPTI ONS** and then press **Enter**.
The **OFF TIME OPTI ONS** screen displays.

OFF TIME OPTI ONS
DI RECTI ON: RI GHT
ENTRY GATE: CLOSED

2. Press **Enter**.
The direction option flashes.
3. Set off-time options.
 - Press **Up** or **Down** to change a setting.
 - Press **Right** or **Left** to switch between the direction and entry gate options.
4. Press **Enter** to save any changes.
5. To return to the Advanced menu, press **Escape** two times. To return to the Main menu, press **Escape** four times.

Viewing and clearing counts

Counts are running totals of animals E-GATE has sorted through each gate. The counts are also on the main display when E-GATE is in training or automatic mode.

To view counts

On the Main menu, scroll to **DEFI NE COUNTS**.
The screen displays the current counts for each direction.

DEFI NE COUNTS

L: XXXX M: XXXX R: XXXX

The **X**s represent numbers.

For a two-way sorter, E-GATE displays only the left and right counts.

To clear counts

1. On the Main menu, scroll to **DEFI NE COUNTS** and then press **Enter**.
The **CLEAR ALL COUNTS** screen displays the current counts.

CLEAR ALL COUNTS

L: XXXX M: XXXX R: XXXX

The **X**s represent numbers.

2. To clear the counts, press **Enter**. To cancel and return to the previous screen, press **Escape**.
The **ALL COUNTS CLEARED** screen displays briefly and then the **CLEAR ALL COUNTS** screen displays.
3. Press **Escape** to return to the Main menu.

Enabling, disabling, and setting maximum counts

When maximum counts are enabled, you can access the following items.

- **Maximum counts** (on page 50)
- **Overflow painters** (on page 51)
- **Sort overflows** (on page 50)

When maximum counts are enabled, after E-GATE has sorted the maximum number of animals in a direction, it sorts all remaining animals that would have been sorted in that direction, in the overflow direction.

For example, if you want to ship 100 animals and the shipping pen is the middle direction, you would set the maximum count for the middle to 100. After E-GATE sorts 100 animals in that direction, it sorts any remaining animals in the overflow direction.

By default, maximum counts are *not enabled* and E-GATE does not stop at the maximum values; instead it keeps sorting normally.

To enable or disable maximum counts

1. On the Main menu, scroll to **DEFI NE COUNTS** and then press **Enter**.
The **CLEAR ALL COUNTS** screen displays.
2. Scroll to **MAX COUNTS ENABLE** and then press **Enter**.
The screen displays with the option flashing.

MAX COUNTS ENABLE

DI SABLED

3. Press **Up** or **Down** to enable or disable maximum counts.
4. Press **Escape** to return to the Main menu.

To set maximum counts

1. On the Main menu, scroll to **DEFI NE COUNTS** and then press **Enter**.
The **CLEAR ALL COUNTS** screen displays.
2. Scroll to **SET MAX COUNTS** and then press **Enter**.
The screen displays with the cursor flashing at the left count position.

SET MAX COUNTS
L: XXXX M: XXXX R: XXXX

The **X**s represent numbers.

3. Set the maximum counts.
 - Press **Left** or **Right** to change the cursor position.
 - Press the number buttons to enter the counts. You must enter the leading zeros.
For example, if you want to enter 200, press **0200**.
4. Repeat step 3 for each count you want to set.
5. When finished, press **Enter** to save any changes.
6. Press **Escape** two times to return to the Main menu.

Setting sort overflows

Sort overflows work with maximum counts. After E-GATE has sorted the maximum number of animals (in other words, the "maximum count") in a direction, it sorts all remaining animals that would have been sorted in that direction, in the overflow direction.

For example, if you want to ship 100 animals and the shipping pen is the middle direction, you would set the maximum count for the middle to 100. After E-GATE sorts 100 animals in that direction, it sorts any remaining animals in the overflow direction.



The overflow direction must point to itself to create a "loop" or the sorter will shut down when it reaches the maximum count.

In a typical food court setup, the "market direction" is a holding pen and is the only critical direction you do not want to overcrowd.

To set sort overflows

1. On the Main menu, scroll to **DEFI NE COUNTS** and then press **Enter**.
The **CLEAR ALL COUNTS** screen displays.
2. Scroll to **SET SORT OVERFLOWS** and then press **Enter**.
The screen displays with the cursor flashing at the left overflow position.

SET SORT OVERFLOWS

L: LEFT R: RI GHT

M: MI DDLE

The **X**s represent numbers.

3. Set the overflow directions.
 - Press **Left** or **Right** to remove between items.
 - Press **Up** or **Down** to change an item.
4. When finished, press **Enter** to save any changes.
5. Press **Escape** two times to return to the Main menu.

Enabling, disabling, and setting overflow painters

When overflow painters are enabled, you can set E-GATE to paint animals it sorts in the overflow direction. By default, overflow painters are *not enabled*.

To enable or disable overflow painters

1. On the Main menu, scroll to **DEFI NE COUNTS** and then press **Enter**.
The **CLEAR ALL COUNTS** screen displays.
2. Scroll to **OVERFLOW PAI NTERS** and then press **Enter**.
The screen displays with the option flashing.

OVERFLOW PAI NTERS

DI SABLED

3. Press **Up** or **Down** to enable or disable overflow painters.
4. Press **Escape** to return to the Main menu.

To enable or disable overflow painters

1. On the Main menu, scroll to **DEFI NE COUNTS** and then press **Enter**.
The **CLEAR ALL COUNTS** screen displays.
2. Scroll to **SET OVERFLOW PAI NTS** and then press **Enter**.
The screen displays with the cursor flashing at the first available painter.

SET OVERFLOW PAI NTS		
P1: N	P2: N	P3: N

Painter 1 is not available for three-way sorters.

3. Set the overflow painters.
 - Press **Left** or **Right** to move between painters.
 - Press **Up** or **Down** to change a painter setting.
4. When finished, press **Enter** to save any changes.
5. Press **Escape** two times to return to the Main menu.

Viewing statistics

E-GATE has five options for viewing statistics.

- Running statistics (on page 53)
- 24-hour statistics (on page 54)
- 365-day logged statistics (on page 54)
- Individual sort statistics (on page 55)
- Customs statistics reports (on page 56)

Setting the statistics reset hour

The stats reset hour determines when E-GATE restarts the daily weight log. The hours are in 24-hour time.

The default is *18*, or in other words, 6:00 PM.

To change the statistics reset hour

1. On the Advanced menu, scroll to **STATI ON SETUP** and then press **Enter**.
The **LOGONS** screen displays.
2. Scroll to **STATS RESET HOUR** and then press **Enter**.
The option line flashes.

<p>STATS RESET HOUR</p> <p>18</p>

3. Press **Left** or **Right** to change the cursor position. Press **Up** or **Down** to change the hour and then press **Enter**.
4. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Viewing running statistics

The running statistics screen displays the number and average weight of animals successfully sorted. Each weight group has its own statistics. Running statistics are based on animals E-GATE has sorted since the last time statistics were reset. For more information about resetting statistics, read **Clearing statistics** on page 59.

To view running statistics

1. On the Main menu, scroll to **STATI STI CS** and then press **Enter**.
The **VI EW STATI STI CS** screen displays.
2. Press **Enter**.
The **RUNNI NG STATS** screen displays.
3. Press **Enter**.
The **RUN STATS** screen displays.

<p>RUN STATS GROUP#1</p> <p>COUNT: XXXX</p> <p>AVERAGE: XXX. X lbs</p> <p>---- Prev Next</p>
--

The **X**s represent numbers.

Press **F3** to scroll backward through the groups.

Press **F4** to scroll forward through the groups.

4. When finished, press **Escape** three times to return to the Main menu.

Viewing 24-hour statistics

The 24-hour statistics screen displays the number of animals successfully sorted and the average weight of those animals. Each weight group has its own statistics.

The 24-hour statistics are based on animals E-GATE has sorted since the stats reset hour. For more information about the stats reset hour, read **Setting the statistics reset hour** on page 52.

To view 24-hour statistics

1. On the Main menu, scroll to STATISTICS and then press **Enter**.
The VIEW STATISTICS screen displays.
2. Press **Enter**.
The RUNNING STATS screen displays.
3. Scroll to 24 HOUR STATS and then press **Enter**.
The 24HR STATS screen displays.

```

24HR STATS GROUP# 1
COUNT:      XXXX
AVERAGE:     XXX. X lbs
----- Prev Next
  
```

The Xs represent numbers.

Press **F3** to scroll backward through the groups.

Press **F4** to scroll forward through the groups.

4. When finished, press **Escape** three times to return to the Main menu.

Viewing 365-day logged statistics

The 365-day statistics screen displays a daily log of each weight group. E-GATE uses the daily average weight to calculate the weight gain.

To view 365-day logged statistics

1. On the Main menu, scroll to STATISTICS and then press **Enter**.
The VIEW STATISTICS screen displays.
2. Press **Enter**.
The RUNNING STATS screen displays.

3. Scroll to 365 DAY LOGGED STATS and then press **Enter**.
The screen displays the statistics for the first day.

```

DAY#: XXX    (DATE)
GRP 1 AVG: XXX.X lbs
      GAIN: XXX.X lbs
PgUp PgDn Prev Next
  
```

The **X**s represent numbers.

The **(DATE)** represents the date in dd/mm/yy.

Press **F1** to scroll backward through the groups.

Press **F2** to scroll forward through the groups.

Press **F3** to scroll backward through the days.

Press **F4** to scroll forward through the days.

4. When finished, press **Escape** three times to return to the Main menu.

Viewing individual sort statistics

The individual sort statistics screen displays the date, time, sort mode, weight group, weight, and direction for each sort record. E-GATE can store 3000 sort records. After 3000 records, E-GATE overwrites the oldest record.

To view individual sort statistics

1. On the Main menu, scroll to STATISTICS and then press **Enter**.
The VIEW STATISTICS screen displays.
2. Press **Enter**.
The RUNNING STATS screen displays.
3. Scroll to INDIVIDUAL SORT STATISTICS and then press **Enter**.
The screen displays the statistics for the first record.

```

SORT #XXXX    (DATE)
  (TIME)      (Z) GRP #X
WT: XXX lbs   (D)
---- Prev Next
  
```

The **X**s represent numbers.

The **(DATE)** represents the date in dd/mm/yy.

The **(TIME)** represents the time in hh:mm:ss.

The **(Z)** represents the sort mode.

The **(D)** represents the sort direction.

Press **F3** to scroll backward through the sort records.

Press **F4** to scroll forward through the sort records.

4. When finished, press **Escape** three times to return to the Main menu.

Viewing custom statistics reports

The custom statistics screen displays two types of reports: a "date and time" and a "group and weight range" version.

Date and time report

The date and time report has three screens.

Settings screen

The settings screen is where you select the dates and times you want in the report.

```
DD/MM/YY & HH: MM: SS
((DATE)) TO ((DATE))
((TIME)) TO ((TIME))
---- PgDn      Report
```

The ((DATE)) represents the date in dd/mm/yy.
The ((TIME)) represents the time in hh:mm:ss.

Report results screen

The report results screen displays the average weight and number of animals for the dates and times you selected.

```
REPORT RESULTS
TOTAL AVG: XXX lbs
TOTAL CNT: XXXX
Settings ---- Next
```

The Xs represent numbers.

Weights and counts

The weights and counts screen displays the average weight and total number of animals per direction for the dates and times you selected.

```
WEIGHTS & COUNTS
L: XXX M: XXX R: XXX
L: XXXX M: XXXX R: XXXX
Settings Prev ----
```

Groups and weight range report

The groups and weight range report has three screens.

Settings screen

The settings screen is where you select the groups and weight range you want in the report.

```
GROUP & WEIGHT RANGE
GROUP: X TO X
WT: XXX TO XXX lbs
PgUp ---- Report
```

The Xs represent numbers.

Report results screen

The report results screen displays the average weight and number of animals for the groups and weight range you selected.

```
REPORT RESULTS
TOTAL AVG: XXX lbs
TOTAL CNT: XXXX
Settings ---- Next
```

Weights and counts

The weights and counts screen displays the average weight and total number of animals per direction for the groups and weight range you selected.

```
WEIGHTS & COUNTS
L: XXX M: XXX R: XXX
L: XXXX M: XXXX R: XXXX
Settings Prev ----
```

To create a date and time range report

1. On the Main menu, scroll to STATISTICS and then press **Enter**.
The VIEW STATISTICS screen displays.
2. Press **Enter**.
The RUNNING STATS screen displays.

3. Scroll to **CUSTOM STATUS REPORT** and then press **Enter**.
The settings screen displays for the date and time report.

```

DD/MM/YY & HH: MM: SS
((DATE)) TO ((DATE))
((TIME)) TO ((TIME))
---- PgDn      Report
  
```

The ((DATE)) represents the date in dd/mm/yy.
The ((TIME)) represents the time in hh:mm:ss.

Press **F2** to go to the "group and weight range" version.
Press **F4** to create the report.

4. Enter the date and time ranges you want for the report.

- Press **Left** or **Right** to change the cursor position.
- Press **Up** or **Down** to increase or decrease a number.

5. Press **F4** to create the report.
The report results screen displays.

```

REPORT RESULTS
TOTAL AVG: XXX lbs
TOTAL CNT: XXXX
Settings ---- Next
  
```

The Xs represent numbers.

Press **F1** to return to the settings screen.
Press **F4** to go to the weights and counts screen.

6. To display the second screen of the report, press **F4**.
The weights and counts screen displays.

```

WEIGHTS & COUNTS
L: XXX M: XXX R: XXX
L: XXXX M: XXXX R: XXXX
Settings Prev ----
  
```

The Xs represent numbers.

Press **F1** to return to the settings screen.
Press **F3** to go to the "group and weight range" version.

7. When finished, press **Escape** three times to return to the Main menu.

To create a groups and weight range report

1. On the Main menu, scroll to **STATISTICS** and then press **Enter**.
The **VIEW STATISTICS** screen displays.
2. Press **Enter**.
The **RUNNING STATS** screen displays.
3. Scroll to **CUSTOM STATUS REPORT** and then press **Enter**.
The settings screen displays for the date and time report.

4. Press **F2**.

The settings screen displays for the groups and weight range report.

```
GROUP & WEIGHT RANGE
GROUP: X TO X
WT: XXX TO XXX lbs
PgUp ---- Report
```

The **X**s represent numbers.

Press **F1** to go to the "date and time" version.

Press **F4** to create the report.

5. Enter the groups and weight range you want for the report.

- Press **Left** or **Right** to change the cursor position.
- Press the number buttons to enter the groups and weights. You must enter the leading zeros. For example, if you want to enter 90 pounds, press **090**.

6. Press **F4** to create the report.

The report results screen displays.

```
REPORT RESULTS
TOTAL AVG: XXX lbs
TOTAL CNT: XXXX
Settings ---- Next
```

The **X**s represent numbers.

Press **F1** to go to the settings screen.

Press **F4** to go to the weights and counts screen.

7. To display the second screen of the report, press **F4**.

The weights and counts screen displays.

```
WEIGHTS & COUNTS
L: XXX M: XXX R: XXX
L: XXXX M: XXXX R: XXXX
Settings Prev ----
```

The **X**s represent numbers.

Press **F1** to go to the settings screen.

Press **F3** to go to the report results screen.

8. When finished, press **Escape** three times to return to the Main menu.

Clearing statistics

E-GATE maintains log files it uses when displaying statistics. There are four log files; you can clear each log file individually, or all at once.

- Running statistics log
- 24-hour statistics log
- 365-day statistics log
- Individual statistics log

To clear a log file

1. On the Main menu, scroll to **STATISTICS** and then press **Enter**.
The **VIEW STATISTICS** screen displays.
2. Scroll to **CLEAR STATISTICS** and then press **Enter**.
The **CLEAR RUNNING STATISTICS** screen displays.
3. Scroll to the log file you want to erase.
4. Press **Enter**.
The **ARE YOU SURE** screen displays.
5. To clear the log file, press **Enter**. To cancel, press **Escape**.
E-GATE clears the log file(s).
6. When finished, press **Escape** two times to return to the Main menu.

Logging on and off remote E-GATES

If you have several E-GATES at your site, you can connect them in a network and communicate between them. This allows you to control and monitor any E-GATE at your site from any other E-GATE.

To log onto a remote E-GATE

1. On the Main menu, scroll to **REMOTE LOG ON** then press **Enter**.
The **LOGON TO REMOTE** screen displays.

LOGON TO REMOTE XX00	
LogOn	Prev Next

The **X**s represent numbers 0 to 9 or letters A to F.

Press **F1** or **F2** to log on to the selected device.

Press **F3** to scroll backward through the devices.

Press **F4** to scroll forward through the devices.

2. Select the device you want to log on to by pressing **F3** or **F4**.
3. Press **F1** to log on to the device.
The **ENTER LOGON PASSWORD** screen displays.
4. Enter the password and then press **Enter**.

To log off a remote E-GATE

Press **Escape** and **1**.

E-GATE logs off the remote scale head and displays the following screen for two seconds, before displaying the WAI TI NG FOR HOG screen.

* USER LOGGED OFF *

Maintaining the E-GATE system

The following topics are in this section:

- **Basic maintenance tasks** (below)
- **Maintaining files and drives** (on page 67)
- **Maintaining BIOS files** (on page 78)
- **Maintaining the scale head** (on page 83)

Basic maintenance tasks

There are five basic maintenance tasks

- Maintaining users, accesses, and passwords below
- Zeroing the scale on page 64
- Setting the date on page 65
- Setting the time on page 66
- Adjusting the display contrast on page 67

Maintaining users, accesses, and passwords

The Advanced menu is protected by a password security system. To access the Advanced menu, users must enter their four-digit password.

You can have up to 99 users, each with different access levels.

- **Access level 0 to 10** – users have access to the Main menu, but cannot do remote logons.
- **Access level 11 to 97** – users have access to all areas of the Main menu, including remote logons.
- **Access level 98** – users have access to all areas of the Main and Advanced menus.

To set user accesses and passwords

1. On the Advanced menu, scroll to **STATI ON SETUP** and then press **Enter**.
The **LOGONS** screen displays.
2. Scroll to **SET PASSWORDS** and then press **Enter**.
The user access screen displays with the cursor flashing at the first position.

USER # XX	Access XXX
Password: XXXX	
----	----- Prev Next

The **X**s represent numbers.

3. Set up the users, access levels, and passwords.
 - Press **F3** to move backward through the users, or **F4** to move forward. For example, press **F4** to move from user **00** to user **01**.
You can also press the number buttons to "jump" to a specific user. For example, change the user number to "20" to move to user number 20.
 - Press **Left** or **Right** to change the cursor position.
 - Press **Up** or **Down**, or one of the number buttons to change the numbers.
4. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Zeroing the scale

Zeroing the scale is necessary when the scale has been repositioned, or there is buildup on the floor or cage of the sorter.



Remove any debris and/or animal matter from on/under the sorter floor before zeroing the scale.

To zero the scale

1. On the Main menu, scroll to **SORTER OPERATI ON** and then press **Enter**.
 - If you are currently in automatic mode, the **WAI TI NG FOR HOG** screen displays.

- If you are currently in manual mode, the **MANUAL WEIGHING** screen displays.
 - If you are currently in training mode, the **TRAINING MODE** screen displays.
2. Scroll to **ZERO THE SCALE** and then press **Enter**.
The **SCALE ZEROED** screen displays briefly, followed by the **ZERO THE SCALE** screen.
 3. Press **Escape** to return to the Main menu.

Setting the date

The E-GATE scale head uses an internal clock to keep track of time and days. Having the correct time is important because the scale head uses the date and time for logging sorting records and following the sort schedule.

To set the date

1. On the Main menu, scroll to **SETUP OPTIONS** and then press **Enter**.
The **SETUP SORT SCHEDULE** screen displays.
2. Scroll to **SET DATE** and then press **Enter**.
The **NEW DATE** screen displays with the cursor flashing at the hour position.

NEW DATE
(DATE)
DD/MM/YY

The **(DATE)** represents the date in dd/mm/yy.

3. Set the date.
 - Press **Left** or **Right** to move the cursor.
 - Press **Up** or **Down** to change the date.
4. Press **Enter**.
5. Press **Escape** two times to return to the Main menu.

Setting the time

The E-GATE scale head uses an internal clock to keep track of time and days. Having the correct time is important because the scale head uses the date and time for logging sorting records, resetting the 24-hour statistics log, and following the sort schedule.

The scale head uses 24-hour time. The table below shows some common standard times and their 24-hour equivalents.

Standard time	24-hour time	Standard time	24-hour time
12:00 AM	00:00	12:00 PM	12:00
01:00 AM	01:00	01:00 PM	13:00
02:00 AM	02:00	02:00 PM	14:00
03:00 AM	03:00	03:00 PM	15:00
04:00 AM	04:00	04:00 PM	16:00
05:00 AM	05:00	05:00 PM	17:00
06:00 AM	06:00	06:00 PM	18:00
07:00 AM	07:00	07:00 PM	19:00
08:00 AM	08:00	08:00 PM	20:00
09:00 AM	09:00	09:00 PM	21:00
10:00 AM	10:00	10:00 PM	22:00
11:00 AM	11:00	11:00 PM	23:00

To set the time

1. On the Main menu, scroll to **SETUP OPTI ONS** and then press **Enter**.
The **SETUP SORT SCHEDULE** screen displays.
2. Scroll to **SET TI ME** and then press **Enter**.
The **NEW TI ME** screen displays with the cursor flashing at the hour position.

NEW TI ME (TI ME) HH: MM: SS

The **(TI ME)** represents the time of day in hh:mm:ss.

3. Set the time.
 - Press **Left** or **Right** to move the cursor.
 - Press **Up** or **Down** to change the time.

4. Press **Enter**.
5. Press **Escape** two times to return to the Main menu.

Adjusting the display contrast

You can adjust the display contrast to make it easier for you to view.

To adjust the display contrast

1. On the Main menu, scroll to **SETUP OPTI ONS** and then press **Enter**.
The **SETUP SORT SCHEDULE** screen displays.
2. Scroll to **ADJUST CONTRAST** and then press **Enter**.
The screen displays

TO ADJUST CONTRAST
OF DI SPLAY USE THE
UP / DOWN ARROW KEYS
#####

3. Press **Up** or **Down** to adjust the contrast.
4. Press **Escape** two times to return to the Main menu.

Maintaining files and drives

The E-GATE scale head has two "drives"—drive 0 is a removable, CompactFlash card; drive 1 is a non-removable, internal flash drive. You can move files to and from the drives, just like you can on a computer drive.

There are three options in the file maintenance directory.

- Maintaining files (starting on page 68)
- Format drive 0 (on page 73)
- Format drive 1 (on page 73)

Maintaining files

The directory function allows you to maintain files on drive o. You can perform the following five functions.

- **Delete a file** – you can delete a file on drive o (the CompactFlash card).
- **Rename a file** – you can rename a file on drive o.
- **Copy a file** – you can copy a file to either drive.
- **Send a file to a remote scale head** – you can send a file to any E-GATE scale head on your network. For example, you can send a system file to another scale head to upgrade its firmware. You must have captured the scale head before you can send a file to it.
- **Make a system file** – you can copy the system file to drive o. You can take the CompactFlash card and upgrade another E-GATE, or send the file to another E-GATE on the network. A system file must be the first file on the drive.

The directory function has three main screens.

- File information
- Operation 1
- Operation 2

The file information screen

The file information screen is where you select the file you want to delete, rename, and so on.

DRVO: XX (FILE)
XXXXX Bytes
Opr1 Opr2 Prev Next

The Xs represent numbers.

The (FILE) represents the file name.

Press **F1** to go to the operation 1 screen.

Press **F2** to go to the operation 2 screen.

Press **F3** to scroll backward through the files.

Press **F4** to scroll forward through the files.

The operation 1 screen

The operation 1 screen is where you can delete, rename, or copy a file.

```

DRVO:  XX  (FILE)
        XXXXX Bytes
Del  ---  Rename  Copy

```

Press **Escape** to return to the file information screen.
Press **F1** to delete the file.
Press **F3** to rename the file.
Press **F4** to copy the file to another drive.

The operation 2 screen

The operation 2 screen is where you can send a file to another E-GATE or make a system file.

```

DRVO:  XX  (FILE)
        XXXXX Bytes
RemoteSend  MakeSys

```

Press **Escape** to return to the file information screen.
Press **F1** to send the file to a remote E-GATE.
Press **F4** to make a system file.

To delete a file

1. On the Advanced menu, scroll to **FILE & BIOS SETUP** and then press **Enter**.
The **FILE MAINTENANCE** screen displays.
2. Press **Enter**.
The **DI RECTORY** screen displays.
3. Press **Enter**.
The file information screen displays.

```

DRVO:  XX  (FILE)
        XXXXX Bytes
Opr1 Opr2  Prev Next

```

The **Xs** represent numbers.
The **(FILE)** represents the file name.
Press **F3** to scroll backward through the files.
Press **F4** to scroll forward through the files.

4. Select the file you want to delete and then press **F1**.
The operation 1 screen displays.

```

DRVO:  XX  (FILE)
        XXXXX Bytes
Del  ---  Rename  Copy

```

Press **Escape** to return to the file information screen.

5. Press **F1** to delete the file.
E-GATE deletes the file and then displays the file information screen.
6. To return to the Advanced menu, press **Escape** three times. To return to the Main menu, press **Escape** five times.

To rename a file

1. On the Advanced menu, scroll to **FILE & BIOS SETUP** and then press **Enter**.
The **FILE MAINTENANCE** screen displays.
2. Press **Enter**.
The **DIRECTORY** screen displays.
3. Press **Enter**.
The file information screen displays.

```
DRVO:  XX  (FILE)
        XXXXX Bytes
Opr1 Opr2  Prev Next
```

The **X**s represent numbers.

The **(FILE)** represents the file name.

Press **F3** to scroll backward through the files.

Press **F4** to scroll forward through the files.

4. Select the file you want to rename and then press **F1**.
The operation 1 screen displays.

```
DRVO:  XX  (FILE)
        XXXXX Bytes
Del  ---- Rename Copy
```

Press **Escape** to return to the file information screen.

5. Press **F3** to rename the file.
The following screen displays.

```
DRVO:  XX  (FILE)
RENAME TO? (FILENEW)
Del  ---- Rename Copy
```

6. Enter the new filename. For more information about entering text, read **Entering text and special characters** on page 5.
7. Press **Enter** to save the change.
The **FILE & BIOS SETUP** screen displays.
8. You are at the Advanced menu. To return to the Main menu, press **Escape** three times.

To copy a file

1. On the Advanced menu, scroll to **FILE & BIOS SETUP** and then press **Enter**.
The **FILE MAINTENANCE** screen displays.

2. Press **Enter**.
The DI RECTORY screen displays.
3. Press **Enter**.
The file information screen displays.

```
DRVO:   XX  (FILE)
        XXXXX Bytes
Opr1 Opr2  Prev Next
```

The **X**s represent numbers.
The **(FILE)** represents the file name.
Press **F3** to scroll backward through the files.
Press **F4** to scroll forward through the files.

4. Select the file you want to copy and then press **F1**.
The operation 1 screen displays.

```
DRVO:   XX  (FILE)
        XXXXX Bytes
Del  ---- Rename Copy
```

Press **Escape** to return to the file information screen.

5. Press **F4** to copy the file.
The following screen displays.

```
DRVO:   XX  (FILE)
        COPY TO? (FILENEW)
----- Drv0 Drv1
```

Press **Escape** to return to the file information screen.

6. To enter a new filename, press the corresponding buttons. For more information about entering text, read **Entering text and special characters** on page 5.
7. To copy the file to drive 0, press **F3**. To copy the file to drive 1, press **F4**.
The FILE & BIOS SETUP screen displays.
8. You are at the Advanced menu. To return to the Main menu, press **Escape** three times.

To send a file to a remote scale head

1. On the Advanced menu, scroll to FILE & BIOS SETUP and then press **Enter**.
The FILE MAINTENANCE screen displays.
2. Press **Enter**.
The DI RECTORY screen displays.
3. Press **Enter**.
The file information screen displays.

```
DRVO:  XX  (FILE)
        XXXXX Bytes
Opr1 Opr2  Prev Next
```

The **X**s represent numbers.

The **(FILE)** represents the file name.

Press **F3** to scroll backward through the files.

Press **F4** to scroll forward through the files.

4. Select the file you want to send and then press **F2**.

The operation 2 screen displays.

```
DRVO:  XX  (FILE)
        XXXXX Bytes
RemoteSend  MakeSys
```

Press **Escape** to return to the file information screen.

5. Press **F1**.

The following screen displays.

```
DRVO:  XX  (FILE)
SEND TO SORTER: (ADR)
Send  ----  ----  MAC?
```

The **(ADR)** represents the address of the sorter.

Press **Escape** to return to the file information screen.

6. Press **F4** to select the address of the E-GATE to which you want to send the file.

7. Press **F1** to send the file.

The following screens display.

```
WAI T Sendi ng . . .
COMMUNI CATI NG. . .

Sendi ng Record: XXXX
```

If successful, the following screen displays.

```
WAI T Sendi ng . . .
OPERATI ON DONE

Sendi ng Record: XXXX
```

If unsuccessful, the following screen displays.

```
WAI T Sendi ng . . .
OPERATI ON FAI LED

Sendi ng Record: XXXX
```

8. To return to the Advanced menu, press **Escape** four times. To return to the Main menu, press **Escape** six times.

Formatting the drives

You can format either drive 0 (the CompactFlash card) or drive 1 (the non-removable, internal flash drive). After formatting, you can choose to add a system file to the drive.

To format drive 0

1. On the Advanced menu, scroll to **FILE & BIOS SETUP** and then press **Enter**. The **FILE MAINTENANCE** screen displays.
2. Press **Enter**. The **DIRECTORY** screen displays.
3. Scroll to **FORMAT DRIVE 0** and then press **Enter**. E-GATE formats the drive and then displays the **ADD SYSTEM FILE** screen.
4. To add the system file, press **Enter**. To skip the system file, press **Escape**. The **FILE MAINTENANCE** screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

To format drive 1



Drive 1 is the non-removable, internal flash drive. Unless directed by a service technician, **DO NOT** format drive 1.

1. On the Advanced menu, scroll to **FILE & BIOS SETUP** and then press **Enter**. The **FILE MAINTENANCE** screen displays.
2. Press **Enter**. The **DIRECTORY** screen displays.
3. Scroll to **FORMAT DRIVE 1** and then press **Enter**. E-GATE formats the drive and then displays the **ADD SYSTEM FILE** screen.
4. To add the system file, press **Enter**. To skip the system file, press **Escape**. The **FILE MAINTENANCE** screen displays.
5. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

Upgrading the E-GATE firmware

You can upgrade the E-GATE firmware on the internal flash drive from the CompactFlash card.

The internal flash drive is drive 1; the CompactFlash card is drive 0.

To upgrade the firmware

1. On the Advanced menu, scroll to **FILE & BIOS SETUP** and then press **Enter**.
The **FILE MAINTENANCE** screen displays.
2. Scroll to **LOCAL APPLICATION** and then press **Enter**.
The **BOOT NEW APP** screen displays.
3. Press **Enter**.
The **BOOT FROM DRIVE 0** screen displays.
4. To upgrade the firmware, press **Enter**. To cancel and return to the previous screen, press **Escape**.
The **BOOTING . . .** displays. When complete, the **WAITING FOR HOG** screen displays.

Copying the E-GATE firmware

You can copy the E-GATE firmware (system file) from the internal flash drive to the CompactFlash card. You can then upgrade other E-GATE scale heads from the CompactFlash card.

You can also make a copy on the internal drive using a different filename. The internal flash drive is drive 1; the CompactFlash card is drive 0.

To copy the firmware

1. On the Advanced menu, scroll to **FILE & BIOS SETUP** and then press **Enter**.
The **FILE MAINTENANCE** screen displays.
2. Scroll to **LOCAL APPLICATION** and then press **Enter**.

The BOOT NEW APP screen displays.

3. Scroll to COPY APP TO FILE and then press **Enter**.
The COPY TO screen displays.

```
COPY TO: (FILE)
----- Drv0 Drv1
```

The (FILE) represents the file name; the default is "SYSTEM".

4. To enter a new filename, press the corresponding buttons. For more information about entering text, read **Entering text and special characters** on page 5.
5. To copy the firmware to the CompactFlash card, press **F3**. To copy the firmware to the internal flash drive, press **F4**.
E-GATE copies the file and then displays the COPY APP TO FILE screen.
6. To return to the Advanced menu, press **Escape** two times. To return to the Main menu, press **Escape** four times.

Displaying a remote scale head's version information

You can display the version information of any E-GATE scale head connected to your network.

To display a remote scale head's version information

1. On the Advanced menu, scroll to FILE & BIOS SETUP and then press **Enter**.
The FILE MAINTENANCE screen displays.
2. Scroll to REMOTE FILE OPERATIONS and then press **Enter**.
The READ APP VERSION screen displays.
3. Press **Enter**.
The version screen displays.

```
VER OF: SORTER: (ADR)
----- MAC?
```

The (ADR) represents the address of the sorter.

4. Press **F4** to select the address of the E-GATE you want to display.
5. Press **Enter** to display the version information.

If successful, the following screen displays.

```
BUILD:    SSA1MMDDYY
SORTER: (ADR)
OPERATION  DONE
ENTER TO CONTINUE
```

The **SSA1MMDDYY** represents the application version.

If E-GATE cannot communicate with the remote unit, the following screen displays.

```
BUILD:
SORTER: (ADR)
OPERATION  FAILED
ENTER TO CONTINUE
```

6. Press **Enter** to return to the previous screen.
7. To return to the Advanced menu, press **Escape** three times. To return to the Main menu, press **Escape** five times.

Sending system files to remote scale heads

You can send and install a system file to any E-GATE scale head connected to your network.

To send a system file to a remote scale head

1. On the Advanced menu, scroll to **FILE & BIOS SETUP** and then press **Enter**.
The **FILE MAINTENANCE** screen displays.
2. Scroll to **REMOTE FILE OPERATIONS** and then press **Enter**.
The **READ APP VERSION** screen displays.
3. Scroll to **SEND REMOTE APP** and then press **Enter**.
The **SELECT FILE** screen displays.

```
SND TO? SORTER: (ADR)
SELECT FILE TO SEND
(FILE)
Send  MAC? Prev Next
```

The **(ADR)** represents the address of the sorter.
The **(FILE)** represents the file name.
Press **F3** to scroll backward through the files.
Press **F4** to scroll forward through the files.

4. Press **F4** to select the address of the E-GATE to which you want to send the system file.

5. Select the file you want to send and then press **F1**. The file you select must be a system file or you will get an error message.
While sending the file, the following screen displays.

```
WAI T Sendi ng . . .  
WORKI NG . . .  
  
Sendi ng Record: XXXX
```

The **X**s represent numbers or letters.

If successful, the following screen displays.

```
WAI T Sendi ng . . .  
OPERATI ON DONE  
  
Sendi ng Record: XXXX
```

If E-GATE cannot communicate with the remote unit, the following screen displays.

```
WAI T Sendi ng . . .  
OPERATI ON FAI LED  
  
Sendi ng Record: XXXX
```

6. Press **Enter** to return to the previous screen.
7. To return to the Advanced menu, press **Escape** three times. To return to the Main menu, press **Escape** five times.

Displaying local version information

You can display the local scale head's version information. If you need to contact Crystal Spring Hog Equipment about your E-GATE system, you might need to provide them with the version information.

For information about displaying a remote scale head's version information, read **Displaying a remote scale head's version** information on page 75.

To display local version information

1. On the Main menu, scroll to **SETUP OPTI ONS** and then press **Enter**.
The **SETUP SORT SCHEDULE** screen displays.
2. Scroll to **ABOUT . . .** and then press **Enter**.

The copyright screen displays for three seconds, followed by the version information screen.

```
App I D: SSA1MMDDYY
Version: X. XX
BI OS: X. XX
ENTER TO CONTINUE
```

The Xs represent numbers.

3. Press **Escape** two times to return to the Main menu.

Maintaining BIOS files

Just like almost every computer, the E-GATE scale head has a BIOS (basic input/output system) that handles basic functions. The scale head's BIOS is on the internal flash drive.

Backing up the BIOS

You can create a backup copy of the BIOS on the CompactFlash card. You can use the backup to upgrade other scale heads.

To back up the BIOS

1. On the Advanced menu, scroll to **FILE & BIOS SETUP** and then press **Enter**.
The **FILE MAINTENANCE** screen displays.
2. Scroll to **BIOS OPERATIONS** and then press **Enter**.
The **COPY BIOS TO FILE** screen displays.
3. Press **Enter**.
The **COPY TO** screen displays.

```
COPY TO: (FILE)

----- Drv0 Drv1
```

The **(FILE)** represents the file name; the default is "BIOS".

4. To enter a new filename, press the corresponding buttons. For more information about entering text, read **Entering text and special characters** on page 5.
5. To copy the BIOS to the CompactFlash card, press **F3**. To copy the BIOS to the internal flash drive, press **F4**.
E-GATE copies the file and then displays the COPY BIOS TO FILE screen.
6. To return to the Advanced menu, press **Escape** two times. To return to the Main menu, press **Escape** four times.

Upgrading the BIOS

You can upgrade the BIOS from the CompactFlash card or the internal flash drive.



Upgrade the BIOS *only if* directed by a service technician.

To upgrade the BIOS

1. On the Advanced menu, scroll to FILE & BIOS SETUP and then press **Enter**.
The FILE MAINTENANCE screen displays.
2. Scroll to BIOS OPERATIONS and then press **Enter**.
The COPY BIOS TO FILE screen displays.
3. Scroll to FLASH BIOS FRM FILE and then press **Enter**.
The FLASH FRM screen displays.

FLASH FRM: (FILE)

----- Drv0 Drv1

The (FILE) represents the file name; the default is "BIOS".

4. To enter a new filename, press the corresponding buttons. For more information about entering text, read **Entering text and special characters** on page 5.
5. To upgrade the BIOS from the CompactFlash card, press **F3**. To upgrade the BIOS from the internal flash drive, press **F4**.
E-GATE upgrades the BIOS and then displays that WAITING FOR HOG screen.

6. To return to the Advanced menu, press **Escape** two times. To return to the Main menu, press **Escape** four times.

Saving profile and calibration data

There are three save options.

- Save profile and calibration data
- Save profile only
- Save calibration data only

To save profile and/or calibration data

1. On the Advanced menu, scroll to **FILE & BIOS SETUP** and then press **Enter**.
The **FILE MAINTENANCE** screen displays.
2. Scroll to **PROFILE OPERATIONS** and then press **Enter**.
The **SAVE SCALE PROFILE & CALIBRATION DATA** screen displays.
3. Press **Enter**.
The **SAVE:** screen displays with the save option flashing.

SAVE:
CALIBRATION DATA
TO DRIVE 0.

4. Press **Up** or **Down** to select the item(s) you want to save.
5. Press **Enter**.
The **SAVING SETTINGS** screen displays briefly, followed by the **FILE OPERATION SUCCESSFUL** screen.

FILE OPERATION
SUCCESSFUL
ENTER TO CONTINUE

6. Press **Enter**.
The **PROFILE OPERATIONS** screen displays.

7. Press **Escape** one time to return to the Advanced menu, or three times to return to the Main menu.

Restoring profile and calibration data

If load cell does not show correct weights, you will need to restore the calibration data, v

There are three restore options.

- Restore profile and calibration data
- Restore profile only
- Restore calibration data only

To restore profile and/or calibration data

1. On the Advanced menu, scroll to **FILE & BIOS SETUP** and then press **Enter**.
The **FILE MAINTENANCE** screen displays.
2. Scroll to **PROFILE OPERATIONS** and then press **Enter**.
The **RESTORE SCALE PROFILE & CALIB. DATA** screen displays.
3. Press **Enter**.
The **RESTORE:** screen displays with the save option flashing.

**RESTORE:
CALIBRATION DATA
TO DRIVE 0.**

4. Press **Up** or **Down** to select the item(s) you want to restore.
5. Press **Enter**.
A confirmation screen displays.
6. To restore the file(s), press **Enter**. To cancel and return to the previous screen, press **Escape**.
The **RESTORING SETTINGS** screen displays briefly, followed by the **FILE OPERATION SUCCESSFUL** screen.

FILE OPERATION
SUCCESSFUL
ENTER TO CONTINUE

7. Press **Enter**.
The PROFILE OPERATIONS screen displays.
8. Press **Escape** one time to return to the Advanced menu, or three times to return to the Main menu.

Loading factory defaults

Loading the factory defaults means restoring all configuration and settings to what they were when your E-GATE scale head left the factory. Loading factory defaults might be necessary if "bad" settings have been entered that cause the sorter not to work properly and you are not sure where the problem is.



- ◇ Loading the factory defaults **erases ALL** your configuration and settings. You will have to configure, calibrate, and zero the scale head.
- ◇ If possible, **before restoring** the factory defaults, copy the sorter profile and calibration, firmware, and BIOS to drive 0.
- ◇ **After restoring** the factory defaults, restore the firmware and sorter profile and calibration from drive 0.

To load factory defaults

1. On the Advanced menu, scroll to FILE & BIOS SETUP and then press **Enter**.
The FILE MAINTENANCE screen displays.
2. Scroll to PROFILE OPERATIONS and then press **Enter**.
The LOAD DEFAULT SETUP screen displays.
3. Press **Enter**.
The RESTORE ALL SETTINGS TO DEFAULT VALUES screen displays.

RESTORE ALL SETTINGS
TO DEFAULT VALUES?

PRESS ENTER TO RESET

4. To load the factory defaults, press **Enter**. To cancel and return to the previous screen, press **Escape**.
After a few seconds, the **LOAD DEFAULT SETUP** screen displays.
5. Press **Escape** two times to return to the Advanced menu, or four times to return to the Main menu.

Maintaining the scale head

Proper care and maintenance helps your E-GATE scale head last longer. To prevent damage to the control, perform the following steps after the first two weeks of operation, and once a year after that.

1. Disconnect the DC power supply.
2. Open the cover and check inside for moisture. If there is any moisture, wipe it away using a dry cloth.
3. Check all entry points to make sure they are properly sealed. If they are not properly sealed, apply silicone sealant around the entry points.



- ◇ The scale head enclosure has a seal that prevents harmful gases such as ammonia from damaging the internal components. Do not leave the front cover loose for extended periods.
- ◇ If you need to reseal the enclosure, use a sealant that is labelled as 'non-corrosive', 'electronics grade', or 'neutral cure', such as GE Silicone RTV6780B, RTV 142, or RTV 162.
- ◇ *Do not* use a sealant that is labelled as 'acetic acid cure' or 'acetoxycure'. These sealants release acetic acid while curing, which can damage the E-GATE and will void the warranty.

4. Check all wires to make sure they are properly connected and that they are in good condition.
5. Fasten the cover to the enclosure and then connect the DC power supply.



The air regulator is an auto-drain water separator. Because of the harsh environment in hog barns, carefully monitor the regulator to make sure it drains properly.

Each week, inspect all load arms and load arm hanging brackets for cracked or broken welds.

Cleaning the scale head

Keep the cover of the scale head clean. To clean the cover, wipe it with a cloth and mild detergent or water.



- ◇ Use only a soft cloth and mild detergent to clean the cover. Do not use harsh chemicals or abrasive cleaners—they can scratch the surface.
- ◇ Be careful when washing the room using a high-pressure washer. DO NOT spray the control using a high-pressure washer, **especially around the hose and cable connections**. Evidence of moisture damage inside the control will void the warranty.

Appendices

- Appendix A: scale head factory defaults (below)
- Appendix B: Troubleshooting (on page 87)
- Appendix C: Hints, tips, and questions (on page 91)
- Appendix D: Calibrating the scale (on page 92)

Appendix A: scale head factory defaults

The table below lists the factory defaults for the E-GATE scale head. For more information, read **Loading factory defaults** on page 82.

Main menu items			
Sorter operation > Define sort counts		All directions:	0000
Define groups		Group 1	
		Direction: right	
		P1: no	P2: no P3: no
		Range: 0 to 240 lbs	
		Group 2	
		Direction: right	
		P1: no	P2: no P3: no
		Range: 240 to 500 lbs	
		Group 3 to 9	
		Direction: right	
		P1: no	P2: no P3: no
		Range: 500 to 500 lbs	
Define counts > Max counts enable		Max counts:	disabled
		<i>All other items on the Define counts menu are not available while max counts is disabled.</i>	
> Set max counts		Max counts:	0000 for all directions
> Overflow painters enable		Overflow painters:	disabled
		<i>The Set overflow paints screen is not available while overflow painters is disabled.</i>	
> Set overflow paints		P1: no	P2: no P3: no
> Set sort overflows		L: left	R: right
Setup options > Sort schedule		Schedule:	Enabled all hours, all days

Advanced menu items			
Station setup > Logons	Logons:	shared	
> Auto logoff	Auto logoff:	enabled	
> Stats reset hour	Stats reset hour:	18	
> Passwords	User #00	Access: 001	
		Password:	0101
	User #01	Access: 098	
		Password:	1234
	User #02 to 99	Access: 000	
		Password:	
Devices setup > Capture devices	Devices captured:	none	
> COMM setup	Mode:	normal	
	Network address:	0100	
Scale options > Off time options	Direction:	right	
	Entry gate:	closed	

Appendix A: scale head factory defaults



> Training mode setup	Left count:	0005
	Right count:	0005
> Setup nonsort position	Direction:	left
> Setup park position	Direction:	left
> Set timers	Enter gate timer:	002.0 seconds
	Exit gate timer:	002.0 seconds
	Sort gate timer:	002.0 seconds
	Hog exit timeout:	180.0 seconds
	Paint timer:	0.5 seconds
> Set weight units	Weight units:	pounds
> Set entry weight	Entry weight:	050 pounds
> Set exit weight	Exit weight:	010 pounds
> Set hog in switch	Hog in switch:	disabled
> Set door switches	Door switches:	disabled
Scale setup	> Calibrate scale	Not calibrated
	> Set sorting weigh readings	Number of readings: 640
	> Set training weigh readings	Number of readings: 640
	> Set sorter type	Sorter type: two-way

Appendix B: Troubleshooting

- If you are having a problem using E-GATE, look it up 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 Crystal Spring Hog Equipment's Customer Support (see Error! Reference source not found. at the front of the manual.)

Problem/message	Possible cause	Resolution
The entry gate closes after an animal has entered, but opens up again. The gate continues to open and close while the animal is in the sorter.	The air pressure is too low. If the pressure is too low, there might not be enough time for the gate to close and make contact with the magnetic switch.	<input type="checkbox"/> Set the air pressure to between 50 and 60 psi.
	The enter gate timer duration is too short. If the duration is too short, there might not be enough time for the gate to close and make contact with the magnetic switch.	<input type="checkbox"/> Set the enter gate timer to at least two seconds.
	The switches on the cylinders are out of alignment.	<input type="checkbox"/> Align the switches. For more information, read Troubleshooting entry and exit gate switches on page 89.
The gates move slowly or do not open/close all the way	There is not enough airflow.	<input type="checkbox"/> Make sure there is enough air pressure and flow at the regulator. <input type="checkbox"/> Make sure there are no kinks or over tightened tie wraps on the air hoses. <input type="checkbox"/> Make sure there are no air leaks. If there is air leaking out the exhaust vent, the cylinder seals might be worn out. <input type="checkbox"/> If the air regulator is leaking, carefully disassemble and then clean the air regulator. Be careful with the small parts. The air regulator is an auto-drain water separator. Because of the harsh environment in hog barns, carefully monitor the regulator to make sure it drains properly.

Problem/message	Possible cause	Resolution
The hog in sensor does not detect animals.	The sensor is not sensitive enough.	<input type="checkbox"/> Adjust the sensitivity. Removing the gate cylinder cover and the front cover on the hog in sensor. Turn the dial clockwise until the sensor functions properly.
	The sensor is damaged.	<input type="checkbox"/> Replace the sensor.
The load cell does not show correct weights.	The scale has not been calibrated.	<input type="checkbox"/> Calibrate the scale. For more information, read Appendix D: Calibrating the scale on page 92.
	The calibration data has been lost or corrupted.	<input type="checkbox"/> Reload the calibration data. For more information, read Restoring profile and calibration data on page 81.
	The load cell is damaged.	<input type="checkbox"/> Replace the load cell and then recalibrate the scale. For more information, read Appendix D: Calibrating the scale on page 92.
	There is animal matter or debris buildup on or underneath the scale platform.	<input type="checkbox"/> Remove any animal matter or build up and then zero the scale. For more information, read Zeroing the scale on page 64.

E-GATE manual test simulation

To test the E-GATE system and stimulate the weighing process, you need to do two things.

1. Place enough weight on the sorter to exceed the entry weight setting.
2. Place something under the hog in sensor. Placing a piece of paper, or swiping your hand under the sensor usually works. The **HOG IN** indicator is on when the sensor "sees" something in front of it.

Placing a weight on the scale and something under the sensor causes E-GATE to think there is a hog on the scale and start the weighing process. The weighing process starts when the entry gate closes.

Troubleshooting entry and exit gate switches

Over time, the clamps holding the entry and exit gate switches can stretch or loosen, causing the switches to be out of alignment. When the switches are out of alignment, the system can have problems determining if the entry and/or exit gates are open or closed.

If the entry gate closes after an animal has entered, but opens up again and continues to open and close while the animal is in the sorter, one or both of the switches might be out of alignment.



The entry and exit gate switches are connected in series. The system does not know which switch is open or not in the right position.

Setting switches

The first step is to get the gates operating properly. Once the gates are operating properly, you can align the entry and exit gate switches.

1. Remove the stainless steel cover to expose the cylinders and switches.
2. Mark the current location of the switches.
3. Place a weight on the scale and something underneath the hog in sensor. The entry gate closes and the **WEIGHING HOG** screen displays.

4. Loosen one of the clamps holding one of the switches and then move the switch forward or backward in 1/16-inch increments until the entry gate stays closed.
5. If the entry gate now stays closed, go to the next section. If the entry gate still opens and closes, place the switch back in its original location, and then repeat steps 3 and 4 with the other switch.

Aligning the entry and exit gate switches

Follow the steps below to align the switches in the correct location.

1. Mark the current location of the switches.
2. Completely loosen the clamp on one of the switches and then hold the switch in place on the cylinder.
3. Place a weight on the scale and something underneath the hog in sensor.
The entry gate closes and the WEI GHI NG HOG screen displays.
4. E-GATE processes the weight and opens the exit gate.
The display shows WAI TI NG FOR HOG TO LEAVE.
5. Remove the weight from the scale and then *while the WAI TI NG FOR HOG TO LEAVE the screen is displayed*, take the switch away from the cylinder.
The exit gate closes, but because the switch is not in place, E-GATE thinks the gate is still open and keeps waiting. The sorter is in "stall mode".
6. Place the switch back on the cylinder, approximately one inch to the right of the mark from step 1, and then slowly move it toward the mark. When the entry gate opens, stop moving. This is the right side of the cylinder's magnetic field. Mark the location.
7. Repeat steps 3 to 6. Approach the mark from the left side with the switch facing the same direction as it was when approaching from the right. Mark the location.
8. Halfway between the left and right side marks is the "contact spot". The contact spot, which is usually 1/4 inch wide, is the ideal location. Mount the switch in the contact spot.
9. Repeat steps 2 to 8 using the other switch.
10. Replace and fasten the stainless steel cover.

Appendix C: Hints, tips, and questions

Hints and tips

- Read **Becoming familiar with the E-GATE** scale head, starting on page 3 to become familiar with the basic operation of the scale head.
- Read **Scale** , starting on page 10 to help you become familiar with the location of important items and areas of the sorter and scale head.
- Follow the guidelines in **Maintaining the scale head** on page 83. Proper care and maintenance will help your E-GATE last longer.
- Remove any debris and/or animal matter from on/under the sorter floor before zeroing the scale.
- Each week, inspect all load arms and load arm hanging brackets for cracked or broken welds.

Frequently asked questions

What happens when the power goes out

The entry and exit gates open and the sort gate(s) position according to the non-sort setting. The E-GATE retains its configuration and settings. When the power returns, the sorter resumes normal operation.

For more information, read **Configuring the default gate positions** on page 21 and **Configuring the non-sort position** on page 31.

What type of paint should I use?

Crystal Spring Hog Equipment recommends **Sprayolo Long-lasting Livestock Marker**. The paint is alcohol-based paint, which you can thin using isopropyl (rubbing) alcohol.

You can buy paint for sorters at many local feed mills and livestock supply stores.



Appendix D: Calibrating the scale

Calibrating the scale is necessary only if the scale is no longer accurate, or you replace a load cell or scale head circuit board.

Before calibrating the scale, clean the sorter. There must not be any foreign matter on or below the scale platform.



Calibrating the scale improperly causes weight readings to be inaccurate and the scale to operate improperly.

To calibrate the scale

1. On the Advanced menu, scroll to **SCALE SETUP** and then press **Enter**.
The **CALI BRATE SCALE** screen displays.

CALI BRATE SCALE

000 lbs

2. Press **Enter**.
The **CALI BRATE LOW** screen displays.
3. Press **Enter** to calibrate the low weight.
The **LOW CALI BRATI ON** screen displays.

LOW CALI BRATI ON
PUT LOW WEIGHT ON
SCALE & PRESS ENTER



You can cancel calibration by pressing **Escape**.

If you go past this step, you must completely and properly calibrate the scale or it will not operate properly.

4. Place a known weight of 0 to 25 pounds (or 0 to 10 kilograms) on the scale.

5. Press **Enter**.
The **WEI GHT VALUE** screen displays.

WEI GHT VALUE

ENTER VALUE: XXX lbs

The **X**s represent numbers.

6. Press the number buttons to enter the weight. You must enter the leading zeros. For example, if you want to enter 10 pounds, press **010**.
The **LOW CALI BRATI ON SET** screen displays briefly and then the **HI GH CALI BRATI ON** screen displays.

HI GH CALI BRATI ON

PUT HI GH WEI GHT ON

SCALE & PRESS ENTER

7. Place a known weight of 250 pounds (or 125 kilograms) on the scale.
8. Press the number buttons to enter the weight.
The **HI GH CALI BRATI ON SET** screen displays briefly and then the **CALI BRATE SCALE** screen displays.
9. Verify the calibration by placing the known weights on the scale. If the display shows the correct value, then you have successfully calibrated the scale.
10. To return to the Advanced menu, press **Escape** one time. To return to the Main menu, press **Escape** three times.

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