ExcelaRate Upgrade Kit
Multi Pro® 5800 Turf Sprayer
Model No. 41642

Installation Instructions

⚠ WARNING

CALIFORNIA
Proposition 65 Warning
This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

Safety

⚠ WARNING

Chemical substances used in the spray system may be hazardous and toxic to you, bystanders, animals, plants, soils, or other property.

• Carefully read and follow the chemical warning labels and material safety data sheets (MSDS) for all chemicals used and protect yourself according to the chemical manufacturer's recommendations. For example, use appropriate personal protective equipment (PPE), including face and eye protection, gloves, or other equipment to guard against personal contact with a chemical.

• There may be more than 1 chemical used and information on each chemical should be assessed.

• Refuse to operate or work on the sprayer if this information is not available.

• Before working on a spray system, ensure that the system has been triple rinsed and neutralized according to the recommendations of the chemical manufacturer(s) and that all the valves have been cycled 3 times.

• Verify that there is an adequate supply of clean water and soap nearby, and immediately wash off any chemicals that contact you.

Installation

Loose Parts

Use the chart below to verify that all parts have been shipped.

Description	Qty.	Use
Pressure transducer	1	
Cap fitting	1	
Flange gasket	1	
Flow meter	1	Install the kit.
Flow meter gasket	2	
Switch	1	
Wire harness	1	

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Installing the Kit

1. Position the sprayer on a level surface, set the parking brake, stop the pump, stop the engine, and remove the key from the starter switch.

2. Disconnect the negative (-) battery cable from the battery.

3. Loosen the worm clamps that secures the manifold coupler to the agitation valve and section valve assembly (Figure 1).
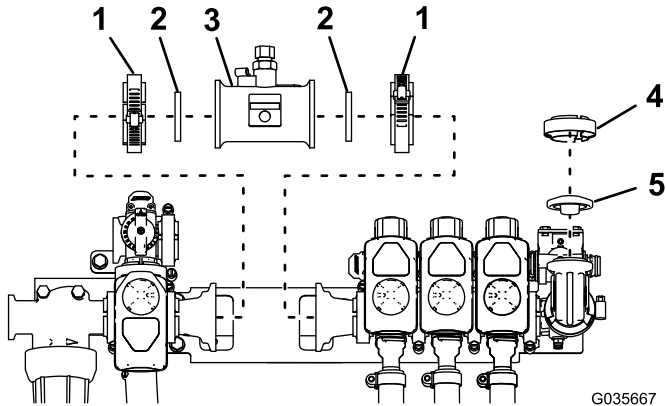

Figure 1
New flow meter shown

1.	Worm clamp	4.	Transducer clamp
2.	Gasket	5.	Cap
3.	Flow meter		

4. Remove the clamps, gaskets, and manifold coupler (Figure 1).

   Note: Retain the clamps.

5. Install the flow meter and 2 flow meter gaskets using the clamps that you just removed (Figure 1).

6. Remove the transducer clamp, cap, and gasket (Figure 1).

7. Install the flange gasket, cap fitting, and pressure transducer, securing them using the transducer clamp that you just removed (Figure 2).
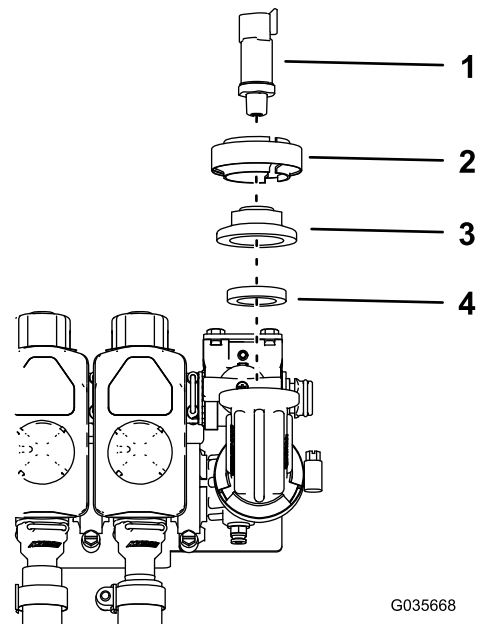

Figure 2

1.	Pressure transducer	3.	Cap fitting
2.	Transducer clamp	4.	Flange gasket

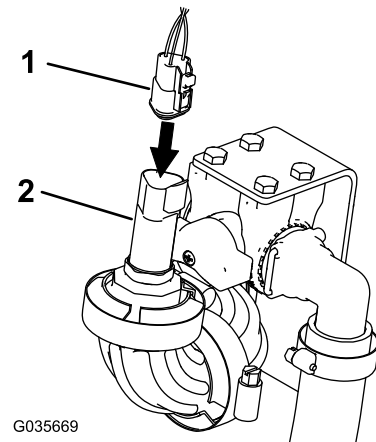8. Connect the pressure transducer connector from the machine wire harness to the pressure transducer.

Figure 3

1.	Pressure transducer connector	2.	Pressure transducer

9. Remove the plug from the dashboard (Figure 4).

Figure 4

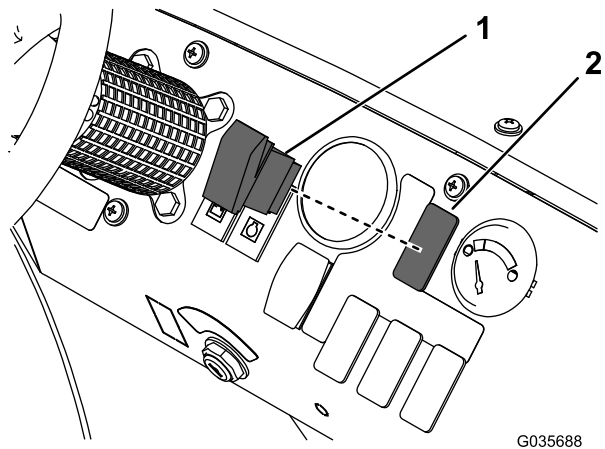| 1. Switch	2. Plug

10. Install the switch into the hole (Figure 4).

11. Beneath the dashboard, connect the wire harness to the switch, then connect it to the machine wire harness.

    Note: The connector on the machine wire harness is tied back to the machine wire harness.

Operation

Using the ExcelaRate Software

Note: You can use the software immediately after installing the kit.

InfoCenter Home Screen

When you start the machine, the home screen appears, displaying the corresponding icons that apply (i.e., the parking brake is engaged, the boom sections are in the On position, the operator is out of the seat, etc.).

Note: The following figure is an example screen; this screen is meant to show all of the **potential** icons that could appear on the screen while operating.

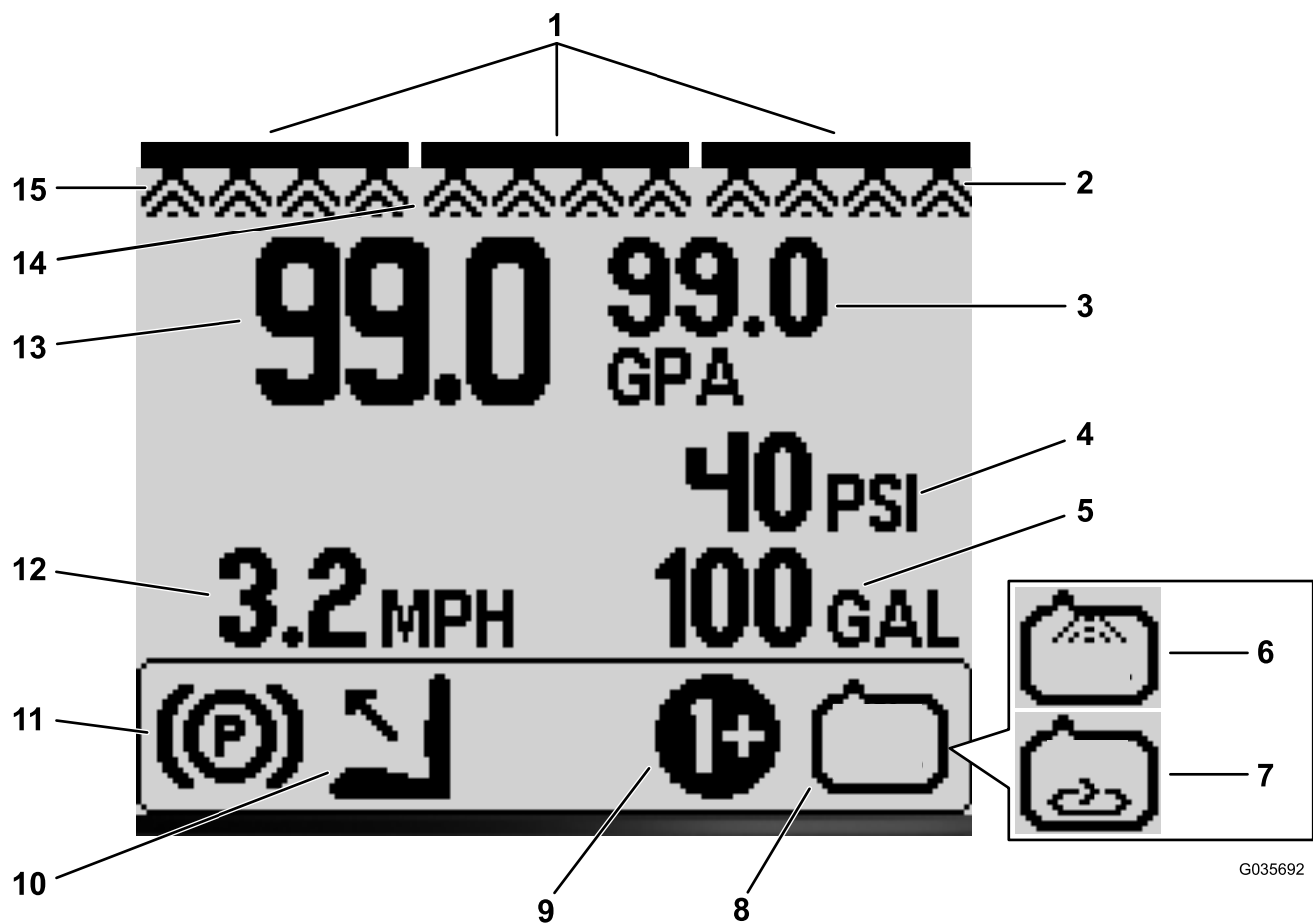Refer to the following graphic for all of the icon meanings (Figure 5).

Figure 5

1. Master boom-switch indicator—on	5. Tank-volume indicator (US gallons)	9. Selected-application rate/boost-rate indicator—on	13. Active-application rate (gpa)
2. Right boom-section indicator—on	6. Rinse-system indicator—on (optional kit)	10. Operator out of seat	14. Center boom-section indicator—on
3. Target-application rate (gpa)	7. Agitation indicator—on	11. Parking-brake indicator	15. Left boom-section indicator—on
4. System-pressure indicator (psi)	8. Spray-pump indicator—on	12. Vehicle-speed indicator (mph)	

Master Boom-Switch Indicator

The master boom-switch indicator displays when the master boom is in the ON position (Figure 5).

Boom-Sections Indicator

The left, right, and/or center boom sections display when any of the boom sections are in the ON position (Figure 5).

Active-Application Rate

The active-application rate indicates the actual rate at which the sprayed product is being applied (Figure 5).

Target-Application Rate

The target-application rate indicates the target rate that the user desires when operating in the application-rate mode (Figure 5).

Note: In Auto mode, the target-application rate should align with the active-application rate.

Vehicle-Speed Indicator

The vehicle-speed indicator displays the current vehicle speed (Figure 5).

Parking-Brake Indicator

The parking-brake indicator displays when the parking brake is engaged (Figure 5).

Operator's-Seat Indicator

The operator-seat indicator displays when the operator is out of the seat (Figure 5).

Selected-Application Rate/Boost-Rate Indicator

The selected-application rate/boost-rate indicator displays when either the selected-application rate and/or the boost rate are active (Figure 5).

Spray-Pump Indicator

The spray-pump indicator displays when the spray pump is on (Figure 5).

Rinse-System Indicator

Optional Kit

The rinse-system indicator displays when the rinse system is active (Figure 5).

Agitation Indicator

The agitation indicator displays when agitation is on (Figure 5).

InfoCenter Main Menu Screen

Press and hold the button 5 (far right) on the InfoCenter to access the Main Menu screen.

From the Main Menu screen, you can access the Set Rates screen, Settings screen, Calibration screen, Service screen, Diagnostics screen, or the About screen (Figure 6).
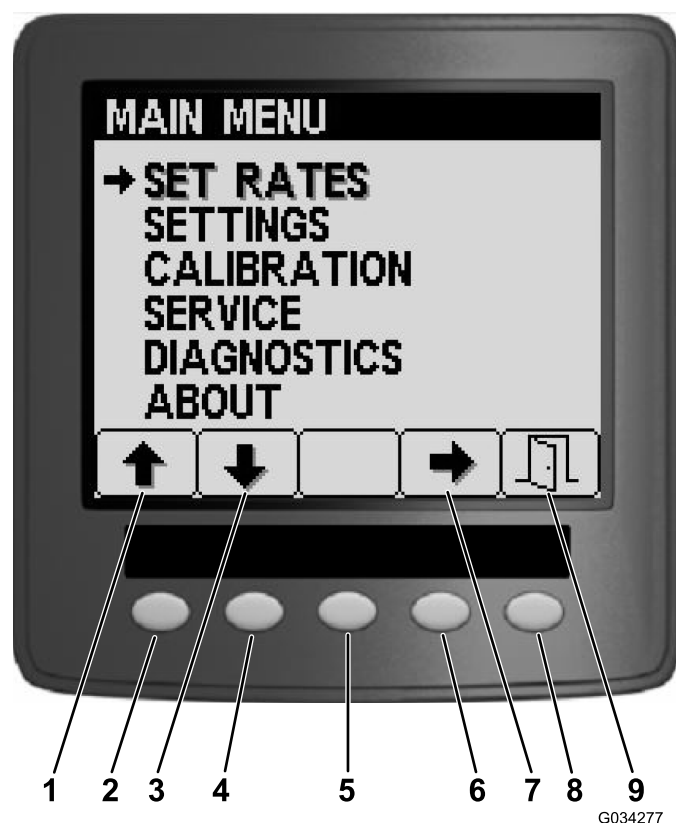

Figure 6

1. Up arrow	6. Button 4
2. Button 1	7. Select arrow
3. Down arrow	8. Button 5
4. Button 2	9. Exit
5. Button 3	

Set Rates Screen

To access the Set Rates screen, press button 2 on the Main Menu screen (Figure 6) until you reach Set Rates and press button 4 to select Set Rates (Figure 7).

This screen displays and allows you to set the Target Rate, Rate 1, Rate 2, and the Boost-rate percentage.

To set Rate 1, Rate 2, or the Boost-rate percentage, refer to the following:

1. Press button 1 or 2 until you reach the desired rate or boost-rate percentage (Figure 7).
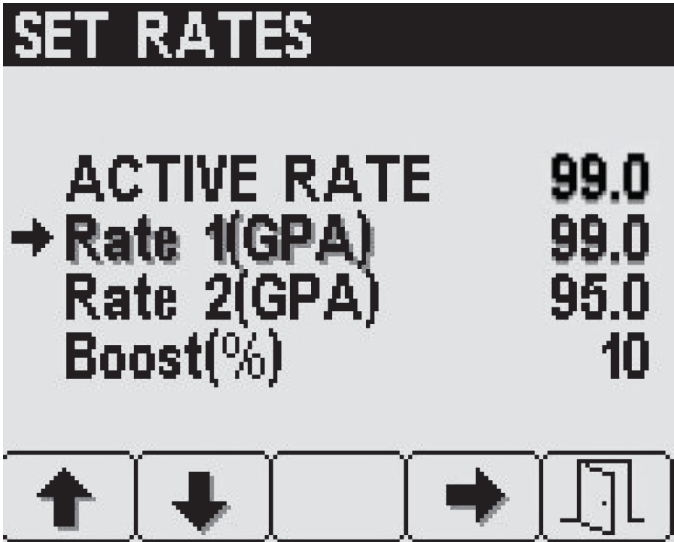
2. Press button 4 to select or edit the rate.

Figure 7

3. In the screen for the selected rate, use buttons 3 and 4 to set the desired rate (Figure 8).

   Note: You can change the rate faster by pressing and holding button 3 or 4.

Figure 8

Note: From the home screen, press and hold buttons 1 and 2 simultaneously to select Rate 1 or press and hold buttons 4 and 5 simultaneously to select Rate 2.

Note: From the Home screen, press and hold buttons 1 and 5 simultaneously to apply boost rate.

Boost is active only as long as you hold buttons 1 and 5, then returns the set rate when you no longer press and hold the buttons.

4. Press button 5 to exit the Set Rates screen, to save the rate setting, and return to the Main screen.

Settings Screen

To access the Settings screen, press button 2 on the Main Menu screen (Figure 6) until you reach Settings and press button 4 to select Settings (Figure 9).

This screen allows you to view and change the settings for the tank, display, boom width, and to reset default settings.
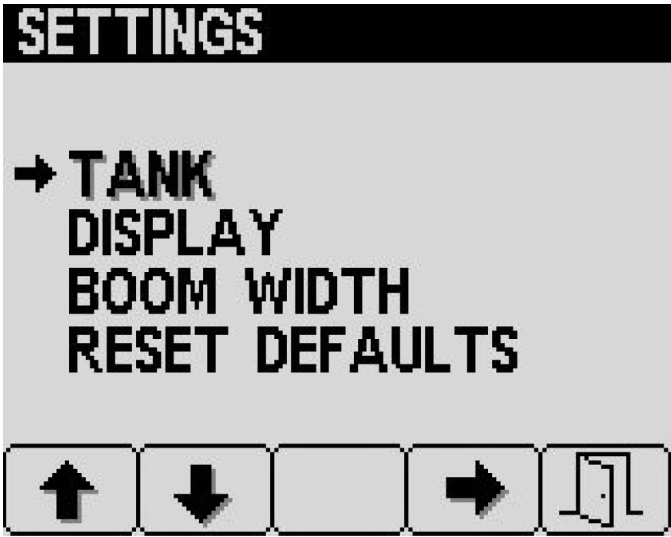

Figure 9

Tank Settings

1. Press button 4 on the Settings screen to select Tank settings (Figure 9).

2. Press button 2 until you reach the item that you would like to change (Figure 10).

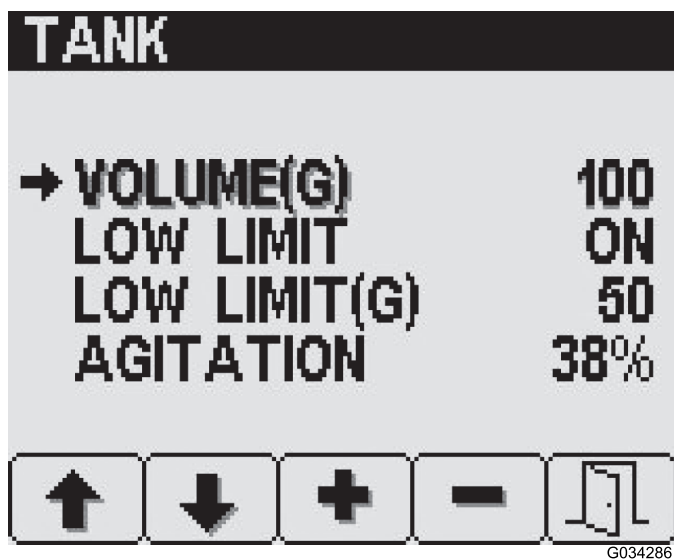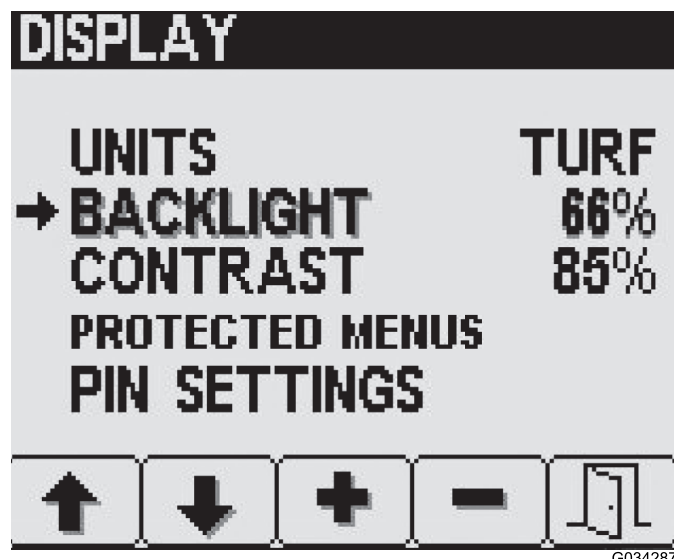3. Use buttons 3 and 4 to set the desired value (Figure 10).

Figure 10

Figure 11

Note: Volume indicates the current amount of liquid in the tank. The low-limit setting alerts you when the tank volume has fallen below the specified low-limit-tank volume. This setting can be turned on or off. You can increase or decrease agitation by pressing buttons 3 and 4.

Display Settings

Change the units of measure as follows:

1. Press button 2 on the Settings screen until you reach Display settings and then press button 4 to select Display (Figure 9).

2. Press button 1 or 2 until you reach Units and then press button 4 to select Units.

3. Press button 1 or 2 until you reach the desired unit and then press button 4 to select this unit.

- **English:** mph, gallons, acre

- **Turf:** mph, gallons, 100 ft²

- **SI (metric):** kph, liter, hectare

Change the InfoCenter display backlight/contrast as follows:

1. Press button 2 on the Display settings screen until you reach Backlight or Contrast (Figure 11).

2. Use buttons 3 and 4 to set the desired value (Figure 11).

Change the InfoCenter protected menus as follows:

1. Press button 2 on the Display settings screen until you reach Protected Menus, then press button 4 to select Protected Menus (Figure 12).
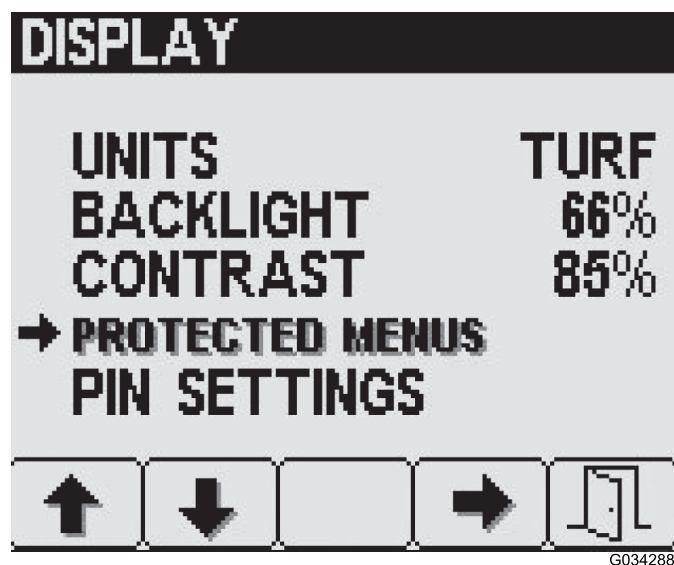

Figure 12

2. Press button 2 until you reach the desired protected menu item (Figure 12).

3. Press button 4 to select and deselect each protected menu item (Figure 13).
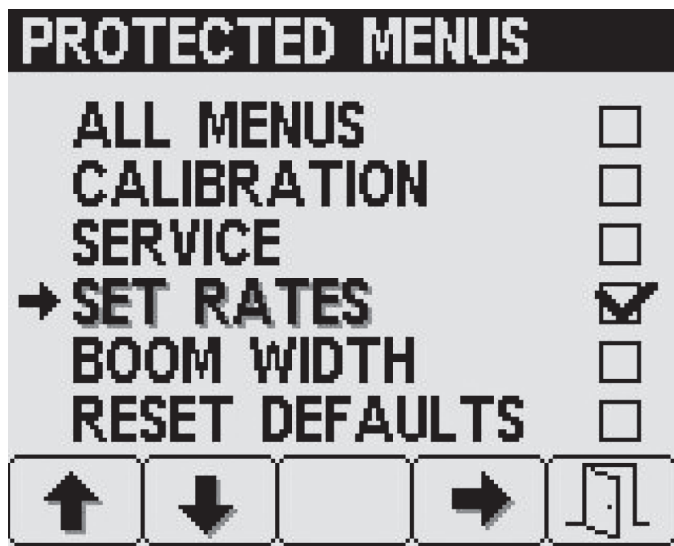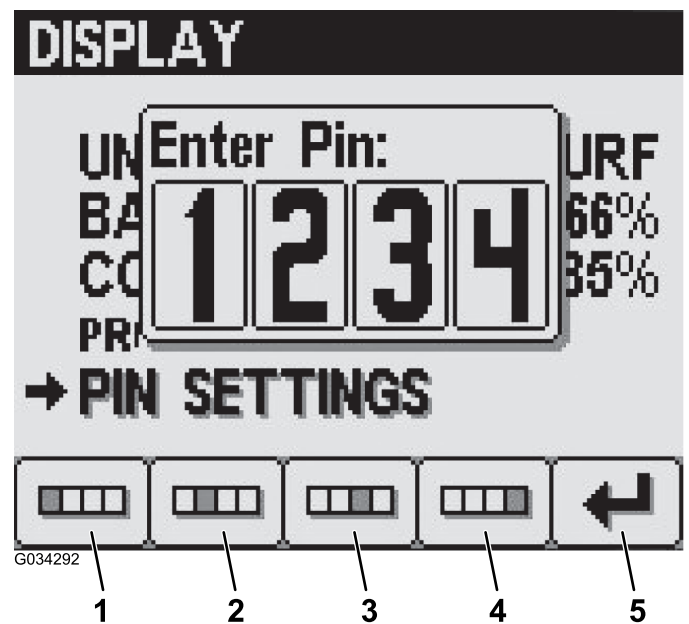
Figure 13

G034289

Figure 15

1. Digit 1
2. Digit 2
3. Digit 3
4. Digit 4
5. Enter PIN

Turn the InfoCenter PIN on/off as follows:

1. Press button 2 on the Display settings screen until you reach PIN Settings, then press button 4 to select PIN Settings (Figure 14).

Figure 14

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2. Enter your PIN using buttons 1 to 4 and press button 5 when you complete the PIN (Figure 15).

3. From the PIN Settings screen, press button 4 to select PIN Entry and to turn the PIN on or off (Figure 16).
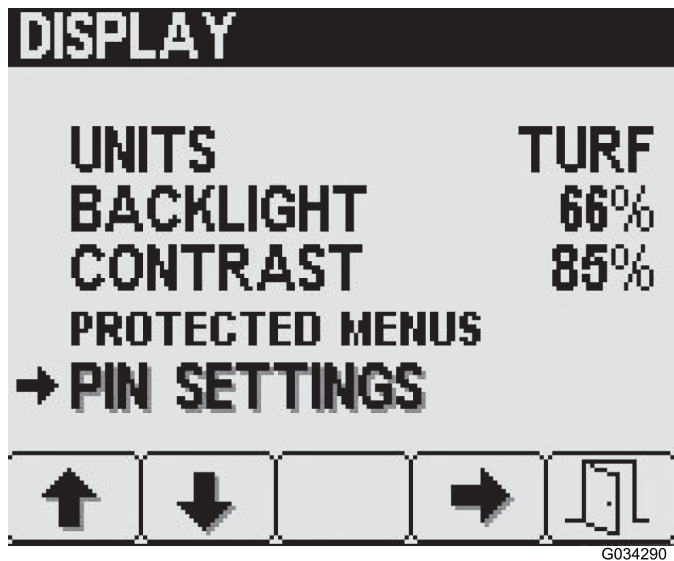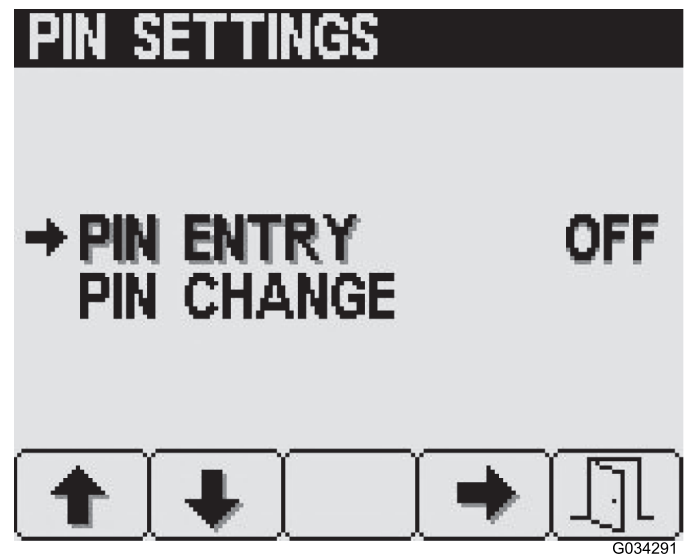

Figure 16

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Change the InfoCenter PIN as follows:

1. Press button 2 on the Display settings screen until you reach PIN Settings, then press button 4 to select PIN Settings (Figure 14).

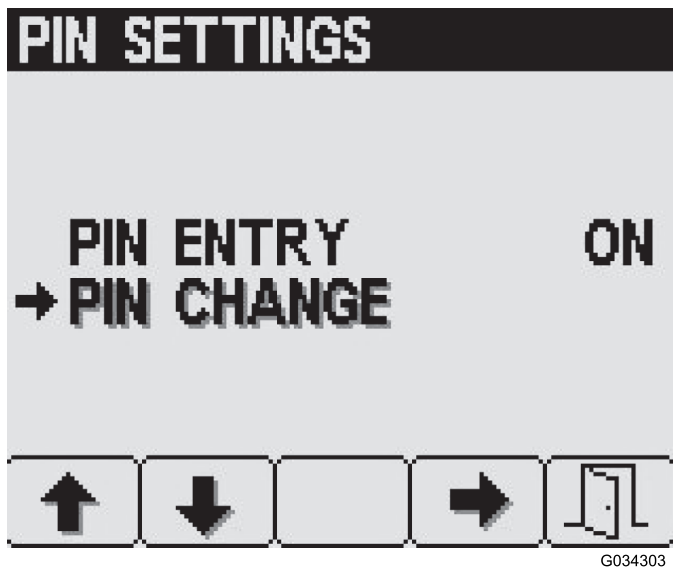2. Enter your PIN using buttons 1 to 4 and press button 5 when you complete the PIN (Figure 15).

3. From the PIN Settings screen, press button 2 until you reach PIN Change, then press button 4 to select PIN Change (Figure 17).

Figure 17

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4. Enter your old PIN using buttons 1 to 4 and press button 5 when you complete the PIN (Figure 15).

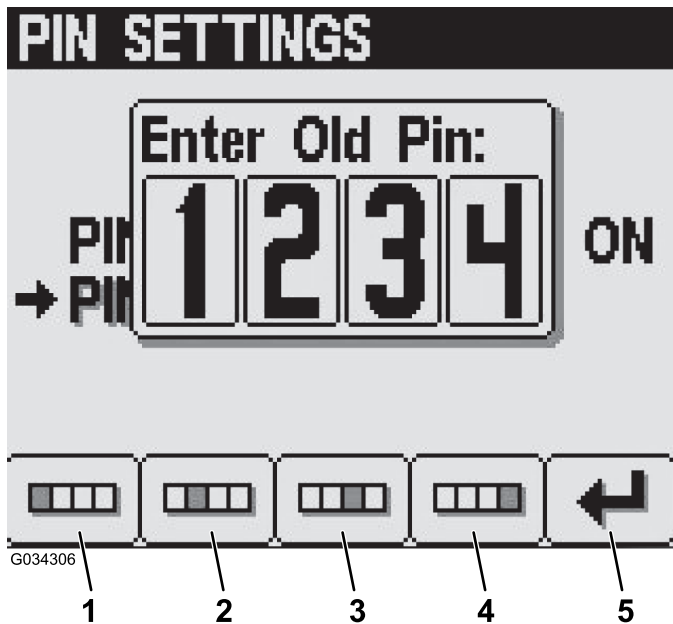   **Note:** The **default PIN** when you initially create your PIN is **1234**.

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Figure 18

1.	Digit 1	4.	Digit 4
2.	Digit 2	5.	Enter PIN
3.	Digit 3		

5. Enter your new PIN using buttons 1 to 4 and press button 5 when you complete your new PIN (Figure 19).

G034307
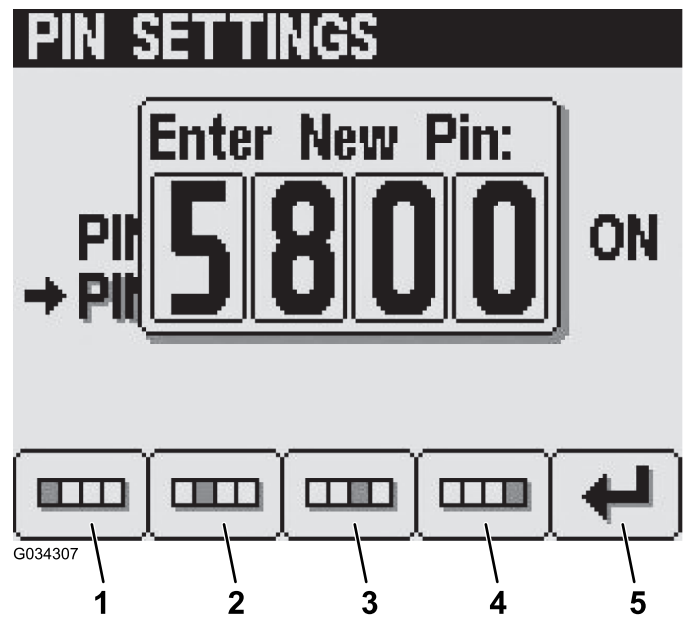
Figure 19

1.	Digit 1	4.	Digit 4
2.	Digit 2	5.	Enter PIN
3.	Digit 3		

6. Confirm your new PIN using buttons 1 to 4 and press button 5 when you complete the PIN (Figure 20).

G034308

Figure 20
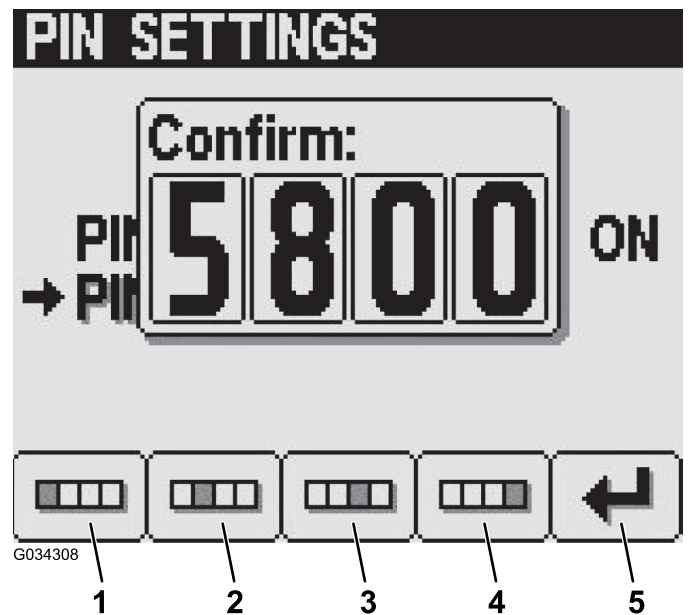
1.	Digit 1	4.	Digit 4
2.	Digit 2	5.	Enter PIN
3.	Digit 3		

Note: After you confirm the pin settings (Figure 20), a Pin Correct screen will appear for approximately 5 seconds.

Boom-Width Settings

The boom-width settings are pre-populated at the manufacturing plant (Figure 9).

Calibration Screen

To access the Calibration screen, press button 2 on the Main Menu screen (Figure 6) until you reach Calibration, and press button 4 to select Calibration.

Note: Pressing button 5 at any time cancels calibrations. If you do so, the machine automatically uses the current calibration rates.
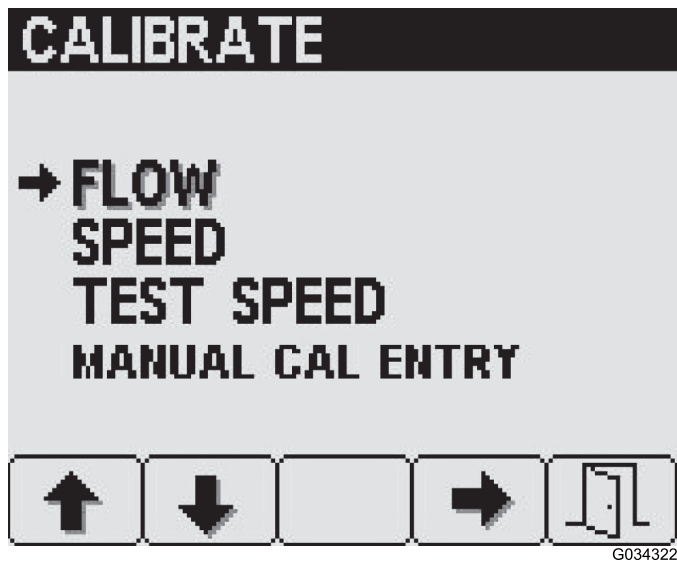

Figure 21

Flow Calibration

Perform the flow calibration before using the machine for the first time, if you change the nozzles, or as needed.

Note: It is recommended to perform a nozzle-uniformity test before starting a Flow Calibration.

1. Set the machine into manual mode, close the boom-sections-bypass valve, turn on the sprayer pump, turn off agitation, and set the engine to full throttle.

2. To access the Flow screen, press button 4 on the Calibrate screen (Figure 21) to select Flow.

3. Fill the sprayer tank with a minimum of 700 L (150 US gallons) of water and apply the parking brake.

4. Press button 2 to move to the next step and to view the Select Nozzle Color screen.

5. Use button 3 and button 4 to select the nozzle that you are using.

6. Press button 2 to move to the next step and to view the To Proceed screen.

7. Press button 2 to move to the next step and to view the 15 Second Catch Test screen.

Note: It is recommended to start the 15 second catch test at 2.75 bar (40 psi), then adjust from there.

All boom sections must be on when performing the catch test.

8. Start at 2.75 bar (40 psi) and use the application-rate switch to adjust the spray pressure so a catch test yields the volume displayed for the selected nozzle color.

9. Press button 2 to move to the next step.

10. Turn on all boom sections, turn on the master boom, and press button 2 to begin calibration.

    Note: Calibration takes several minutes.

    Note: As the machine sprays, the InfoCenter displays the volume of fluid that it is counting.

    Important: Do not turn off the pump or any booms during calibration.

11. If the calibration is successful, a Calibration Successful screen appears; press button 5 to exit.

12. If the calibration is not successful, a Calibration Failed screen appears with the reasoning behind why the calibration failed; press button 5 to exit and restart the calibration.

Speed Calibration

1. Ensure that the tires are properly inflated; refer to the *Operator's Manual.*

2. To access the Speed screen, press button 2 on the Calibrate screen until you reach Speed, then press button 4 (Figure 21) to select Speed.

3. Fill the sprayer tank with a minimum of 700 L (150 US gallons) of water and apply the parking brake.

4. Press button 2 to move to the next step and to view the Speed Calibration screen.

5. Mark off the desired distance before proceeding to the next screen.

6. Press button 2 to move to the next step.

7. Press button 3 to increase the desired distance or press button 4 to decrease the desired distance (Figure 22).

    Note: If you choose to cancel the calibration by pressing button 5, the system automatically defaults to the previously-stored distance.
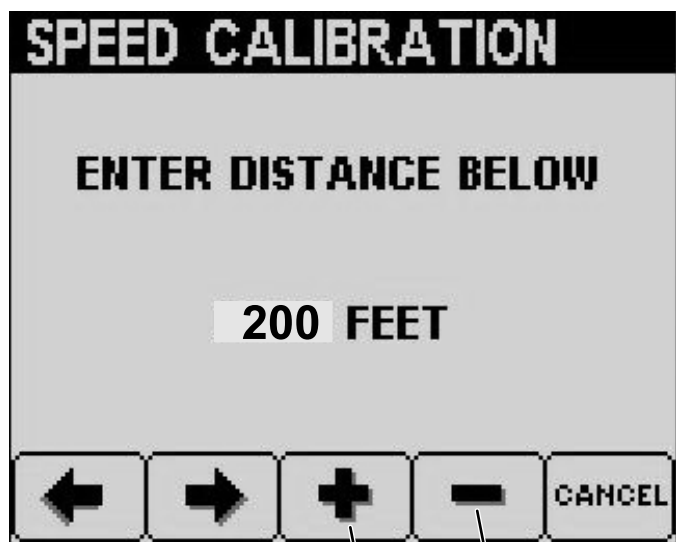
SPEED CALIBRATION

ENTER DISTANCE BELOW

200 FEET

G034324

1   **2**

Figure 22

| 1. | Increase the desired distance | 2. | Decrease the desired distance |

8. Ensure that the boom sections are off and press button 2 to begin calibration.

   Note: As you drive the machine, and the speed calibration progresses, the InfoCenter displays distance until it reaches the set amount.

   Important: Do not shut off the machine after the speed calibration completes.

9. Beginning with the center of the front tire at the "0" mark, drive the vehicle at approximately 5 to 8 kph (3 to 5 mph) to the other mark, and stop with the center of the front tire on the mark.

10. Press button 2 to confirm the distance traveled.

11. If the calibration is successful, a Calibration Successful screen appears; press button 5 to exit.

12. If the calibration is not successful, a Calibration Failed screen appears with the reasoning behind why the calibration failed; press button 5 to exit and restart the calibration.

Manual Calibration Entry

This screen allows you to view and edit the flow calibration number and the speed calibration number.

Service Screen

To access the Service screen, press button 2 on the Main Menu screen (Figure 6) until you reach Service, and press button 4 to select Service.

Note: While spraying, you can view your current flow rate from the Service screen.
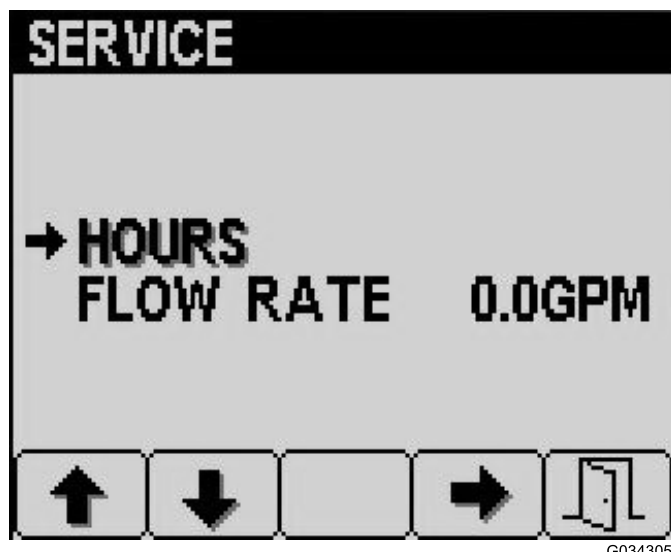

SERVICE

→ HOURS
FLOW RATE   0.0GPM

G034305

Figure 23

From the Service screen, select the Hours screen to view the overall hours of machine, the pump operation hours, and when the next service is due (Figure 24).

HOURS

KEY ON   ---
PUMP RUN   ---
SERVICE DUE IN ---

RESET HOURS

G034304

Figure 24

To reset the Hours screen, press and hold button 3 (Figure 24).

Diagnostics Screen

To access the Diagnostics screen, press button 2 on the Main Menu screen (Figure 6) until you reach Diagnostics, and press button 4 to select Diagnostics.

Select Input/Output on the Diagnostics screen to view your pumps, booms, and engine input and output (Figure 25).

Select Fault Viewer on the Diagnostics screen to view all faults that have occurred on the machine (Figure 25).
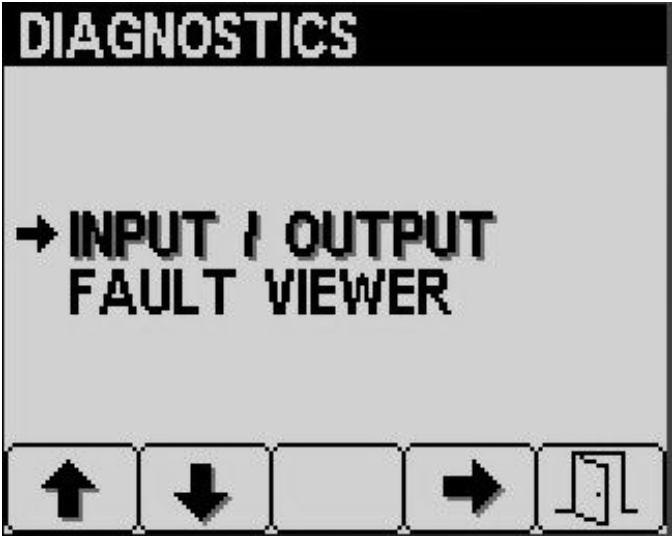

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Figure 25

About Screen

To access the About screen, press button 2 on the Main Menu screen (Figure 6) until you reach About, and press button 4 to select About (Figure 26).

This screen displays the model number and serial number of your machine.

G034285

Figure 26

InfoCenter Spray-Area Screens

From the Home screen, press and hold button 5 to open the menu bar and select the Total Area or Sub-Area screen (Figure 27). Use the Total Area screen to track the total number of acres and gallons that you have sprayed across all areas (Figure 27). Use the Sub-Area screen to select the active sub-area and to track the number of acres and gallons that you have sprayed in each sub-area (Figure 28).
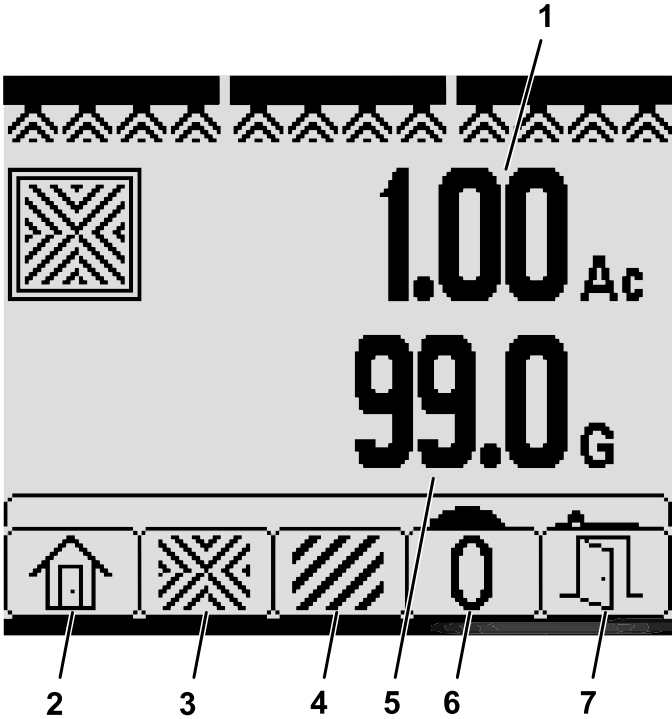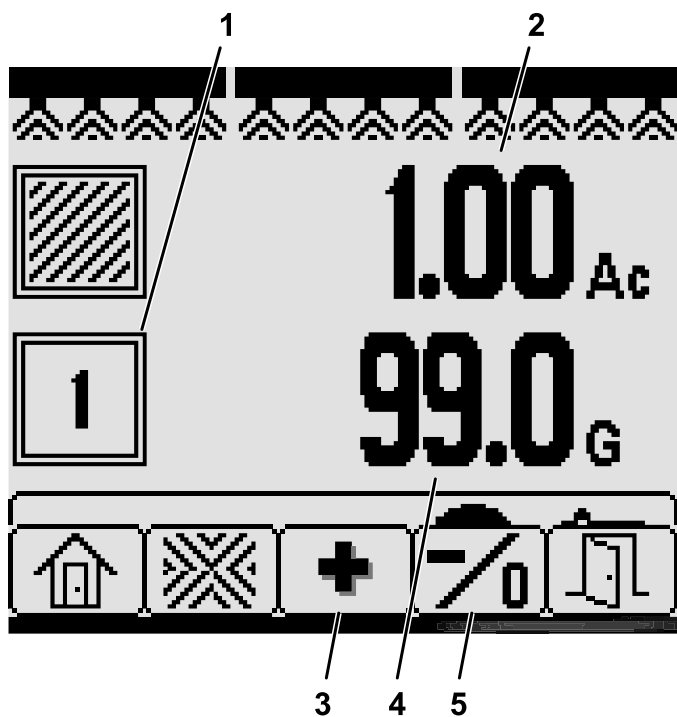

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Figure 27
Total Area Screen

1. Total area sprayed (acres)
2. Return to Home screen
3. View Total Area screen
4. View Sub-Area screen
5. Total volume sprayed (US gallons)
6. Reset total area and volume sprayed.
7. Exit

Figure 28
Sub-Area Screen

1. Active sub-area
2. Area sprayed in the active sub-area (acres)
3. Select the next sub-area
4. Volume sprayed in the active sub-area (US gallons)
5. Select the previous sub-area; hold the button to reset area and volume sprayed for the active sub-area.

G034279

InfoCenter Advisories

Operator advisories automatically display on the InfoCenter screen when a machine function requires additional action. For example, if you attempt to start the engine while pressing the traction pedal, an advisory displays, indicating that the traction pedal must be in the NEUTRAL position.

For each advisory that occurs, there is a condition (e.g., start prevent, engine stopped), an advisory code (number), a qualifier (the cause of the advisory displayed), and a display text (what the advisory displays as text on the screen) as shown in Figure 29.
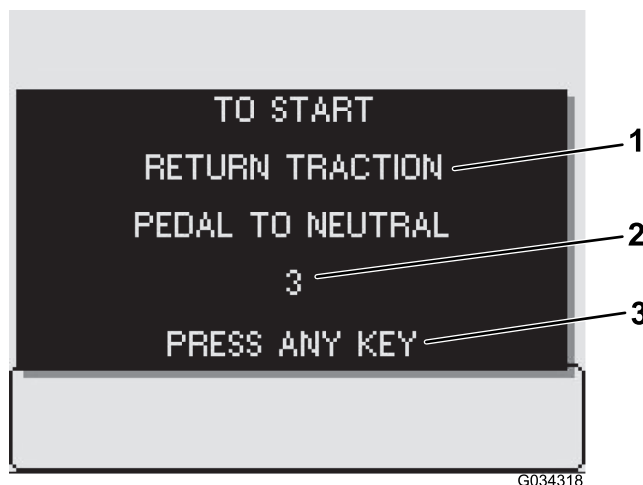

Figure 29

1. Display text	3. Press any key on the InfoCenter to clear the text from the display screen.
2. Code	

Note: Advisories do not log into the fault log.

Note: You can clear an advisory from the display screen by pressing any of the InfoCenter keys.

Refer to the following table for all the InfoCenter advisories:

Condition	Code	Qualifier	Display Text
Start Prevented	2	Pump switch active	To start, turn pump off
Start Prevented	3	Not in NEUTRAL	To start, return traction pedal to neutral
Start Prevented	4	Out of seat	To start, must be seated or set the parking brake
Start Prevented	5	Starter engage timeout	To start, rest starter
Start Prevented	6	Rinse pump active	To start, turn off rinse pump
Engine Stopped	102	Out of seat	Engine stop due to operator out of seat
Engine Stopped	103	Parking brake set	Engine stop due to parking brake engaged
Pump Start Prevented	202	Boom active	To start pump, turn booms off
Pump Start Prevented	203	Out of seat and parking brake not set	To start pump, must be seated or set parking brake
Pump Start Prevented	205	Engine starting	To start pump, stop cranking engine
Pump Turned Off	206	Out of seat	To start pump, remain seated
Tank Status	402	Low spray tank volume	Tank status, volume low
Tank Status	403	Rinse pump active	Tank status, rinse pump on
Parameter Status	502	Wrong parameter value entered	Parameter status, invalid value

Parameter Status	503	A value is outside the range of accepted values	Parameter status, invalid data defaults used
Booms Turned Off	802	Speed dropped	Booms turned off, stopped or moving too slowly

TORO

Count on it.