

46. **Brake On** - Indicates that the brakes are continually applying pressure over the threshold. This could result in a catastrophic failure as the brakes overheat. The pressure threshold for this alarm is the lower Brake On Alert Level from the brake settings in *Section 6.6.6. - Implement/Seeder/Accessories/Brake Control.*

- a. Select the Pressure Threshold Time Delay button to set how long the brake pressure has to be continually detected before alarming. The default is set to 600 seconds (10 minutes).
- b. Select the Speed Threshold button to set how fast you have to be traveling before this alarm triggers. The default is set to 1.0 mph.

47. **Brake Disengaged** - Indicates that the brakes are manually disengaged while moving.

- a. select the Speed Detected Time Delay button to set how long you are moving before alarming. The default is set to 30 seconds.
- b. select the Speed Threshold button to set how fast you have to be traveling before this alarm triggers. The default is set to 1.0 mph.

48. **Low Fan Air Velocity** - not used at this time.

49. **High Fan Air Velocity** - not used at this time.

50. **Air Velocity Sensor Fault** - not used at this time.

51. **ECU Series Mismatch - Apollo CM-40** - Indicates that newer ECU's are being used that don't match the settings.



Figure 4.30 - Brake On



Figure 4.31 - Brake Disengaged

6.7.6.8 Brake Control

This allows the settings related to brake control and monitoring to be configured.

1. **Brake Control** - set to enabled for units equipped with brakes to monitor the brake pressure.
2. **Reverse Switch** - set to enabled for tow-behind units equipped with surge brakes. This gives the operator the ability to disengage the brakes from the monitor to allow reversing the unit.
3. **Brake On Alert Level** - this is the first pressure threshold to show that the brakes are engaged. The icon on the seeder controller screen will show at least the first bar if the brake pressure is above this value. It is defaulted to 10 psi.

Note

An alarm will trigger if the brake pressure remains above this value for too long indicating the brakes could be stuck engaged which may result in serious damage from overheating. If this alarm is triggering but the brakes are inspected and they aren't overheating then this value can be increased slightly.

4. **Sensor Maximum Pressure** - this is the maximum pressure range setting for the sensor. It should be set to 2500 psi.
5. **Sensor Minimum Voltage** - this is the minimum voltage value for the pressure sensor. It should be set to 0.50 V.
6. **Sensor Maximum Voltage** - this is the maximum voltage value for the pressure sensor. It should be set to 4.50 V.



Figure 6.87 - Brake Control

13.4 Brake Control

Tow-behind units equipped with surge brakes will have the ability to monitor the brake pressure and will also have a switch on the console for disabling the brakes to allow reversing.

Leading units equipped with electronically activated brakes will have the ability to monitor the brake pressure only.

Refer to *Section 6.7.6.8 - Brake Control* for configuring brake control settings and *Section 4.5.2 - Seeder Alarms* for brake alarm settings.

1. You can access the brake controls by scrolling to the Brake Control tab in the monitoring panel in the seeder controller screen, refer to *Figure 13.18*.

2. Brake Pressure Indicator

Refer to *Figure 13.19*.

- a. The brake pressure indicator icon will indicate when, and to what level, brake pressure is applied. There are three pressure thresholds that the icon will indicate. They are defaulted to 10 psi, 500 psi and 1250 psi.
- b. If the brake pressure is above the lowest threshold constantly for over 10 minutes while traveling then an alarm will trigger. The brakes should be inspected for issues that may be causing them to stay engaged and overheat that could lead to serious damage.

3. Brake Reverse Switch (for surge brake system only)

- a. The brake reverse switch can be used to disable the brakes to allow reversing the unit.
 - i. For normal operation the icon should be grey with a no symbol over it. This state allows the brakes to engage when required and indicates not to reverse the unit as the brakes will apply.
 - ii. When reversing is required press the brake reverse switch to turn the icon red and remove the no symbol. This



Figure 13.18 - Brake Control Window

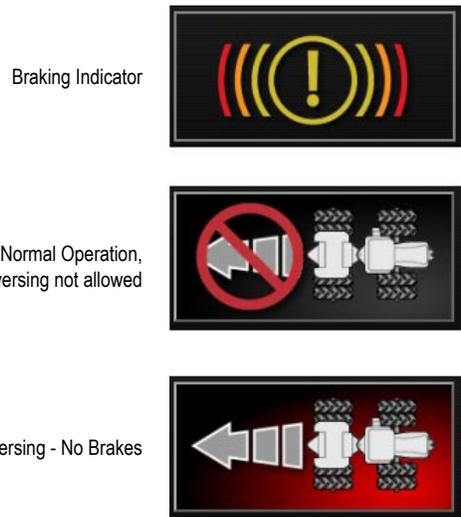


Figure 13.19 - Brake Icons

state disables the brakes so they do not apply while reversing.

- b. If you travel too long with the brake reverse switch in the disabled state (red icon) there will be an alarm triggered to warn the operator.

Note

There is a manual override to disable the surge brake on the brake manifold located on the front hitch of the unit. This has to be in the active state for the brakes to be able to engage when required.