



Ponce Control Systems

Spreader Control System Instruction Manual

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1.0 Overview

Congratulations on purchasing Ponce Control Systems Spreader Pro™ hydraulic control system. This system provides a complete interface between the operator and the hydraulic valves used to control the spreader system including the spinner and auger. This manual is intended to provide the operator with all information necessary to use the Spreader Pro™ under normal conditions. It should NOT be used to service or repair the Spreader Pro™. **The Spreader Control and the associated hydraulic and mechanical systems must be properly installed before attempting to use this instruction manual.**

2.0 Operation Modes

Control Panel functions:

- 1. Power switch:** Red LED illuminates when power is on.
- 2. Manual button:** Press to turn on or turn off manual mode. Adjacent yellow LED illuminates when Manual mode is selected.
- 3. Auto button:** Press to turn on or turn off automatic mode. Adjacent green LED illuminates when Automatic mode is selected.
- 4. Spinner (Up) button:** Press to increase speed of the spinner.
- 5. Spinner (Down) button:** Press to decrease speed of the spinner.

6. **Spinner Digit:** Indicates speed at which the spinner is rotating.
7. **Auger (Up) button:** Press to increase speed of the auger.
8. **Auger (Down) button:** Press to decrease speed of the auger.
9. **Auger Digit:** Indicates speed at which the auger is rotating.
10. **Pause button:** Press to temporarily stop the auger and spinner from rotating. Press again to resume operation.
11. **Blast button:** Press to run auger at full speed for a short period of time.
12. **Reverse button:** Press to run auger in the reverse direction for a short period of time.

Operation Modes: The Spreader Control has two principle modes of operation: Manual and Automatic. Press the Manual button to select Manual mode, and the Auto button to select Automatic mode. To deactivate the spinner and auger, press the Manual button again if currently in Manual mode, or press the Auto button if in Automatic mode.

Manual Mode: This mode lets the user directly control the spinner and auger. Use the arrow buttons to adjust the speed of either device. The adjacent LED digits will indicate speed. Pressing the Pause button will temporarily halt both the spinner and auger until it is pressed again. While in pause mode, the LED digit display will flash on and off continuously. Pressing the blast button will run the auger at full speed for a set period of time. Pressing the Reverse button will run the auger in the reverse direction for a set period of time.

Automatic Mode: When the Spreader Control is in Automatic mode, the speed of the auger will increase proportionally as the truck increases speed from rest to a maximum specified speed. This maximum speed can be adjusted as described below. Both the auger and spinner will stop if the truck is not in motion.

When automatic mode is selected you may increase or decrease the auger max speed using the arrow buttons. The speed displayed on the level indicator when you push the arrow buttons is the maximum speed the auger will attain while the truck is moving. If the auger up/down buttons are not pressed, the display will show the current speed of the auger.

The auger may also be set to Blast or Reverse, as in Manual mode. Spinner speed is also adjusted as described under Manual mode. To temporarily halt the spinner and auger, press pause. Pressing pause again will resume spinner and auger operation.

Example using Automatic mode:

Assume the maximum truck speed setting is 20mph. While at a stop, the auger up/down buttons are used to adjust the maximum auger speed to 50%. Now since the truck is at rest, the auger is stopped. If the truck were to begin driving at 10mph, the auger speed would be 25%. If the truck then accelerated to 35mph, the auger would increase to 50% speed and remain there until the truck speed again dropped below 20mph.

Setting the Maximum Truck Speed - Calibration:

- A. Press and hold the Auto button until the Auto LED flashes.
- B. Drive truck at the maximum speed that will be used during normal spreading operation.
- C. Once this speed is reached, press the blast button. The Maximum Truck Speed parameter will now be set and the unit will return to normal operation mode.

- D. To exit Max Truck Speed Setting mode without setting a max speed press the Auto button again or simply switch off power.

3.0 Settings

3.0.1 Setting the Backlighting Brightness

To adjust the display brightness, exit from Manual or Automatic mode, if the Spreader Control is in either. Simultaneously press the Spinner Up and Spinner Down buttons, and hold them for several seconds until the display flashes. After it flashes, use the Spinner Up or Spinner Down button to increase or decrease brightness. After the adjustment is made, do not press any buttons for several seconds. The display will then flash to indicate that the adjustment was saved

3.0.2 System Setup

The Spreader Pro will be configured at the time of installation for the specific hydraulic, lighting, and timing requirements of the truck. Any further adjustments necessary should be done only by qualified personnel.

4.0 Spreader Pro™ Specifications

Electrical Information

Power Supply:	+10 to +15 VDC
PWM Outputs (current control):	0-2.5A
PWM Frequency:	40-400Hz
Ramp (all PWM's, up & down)	0.5-4.0 sec
Output Status:	On-board LED display
Standard Protections:	output short circuit, (PWM & auxiliaries) reverse polarity, load dumps, overvoltage

NOTE: These specifications are for demonstration purposes only. They are not intended for installation or operation and are subject to change without notice.

Mechanical Information

Operating Temperature:	-30°C to 70°C
Connectors:	

Programmable Settings

Programming Interface:	PC software
Adjustable Performance Parameters	
PWM max current:	0.5-2.5A
Frequency:	40-400Hz
Ramp Up:	0.5-4 sec, 0.5 sec intervals
Ramp Down:	0.5-4 sec, 0.5 sec intervals
PWM Threshold:	0-100%
Hi-end:	Thresh-100%

5.0 Replacement Parts

4500189 Rocker switch with indicator light

6.0 Warranty

PCS warrants this product to be free of manufacturing defects for a period of 2 winters, consisting of any part of a first winter through the last snow of a 2nd winter to a maximum of 20 months. The following items are specifically not covered under warranty.

- The warranty does not cover misuse or abuse that includes using the product in ways for which it was not intended. This includes aggressive use of the joystick.
- The warranty does not cover damage due to exposure to corrosive materials or water damage.
- The warranty does not cover damage to the product due to incorrect installation, configuration or operation.
- The warranty does not cover damage to this or other products that results from information that was incorrectly supplied to PCS from the purchaser.
- The warranty is void if any physical changes are made to the product by anyone but an PCS authorized service representative, including any holes drilled in the enclosure.
- PCS will repair or replace the unit at its discretion. PCS is not responsible for any consequential damages.

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Manufactured by:

All Traffic Solutions

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