



TECH NOTE:	08-011
TITLE:	Iowa DOT Set-Up SpreadSmart PreWet for Gravity Fed PreWet – Ground Speed Oriented
DATE:	12/9/08

Overview: This document describes a method used to set up a SpreadSmart Rx controller and use its Pre-Wet control channel to open and close a 12v ball valve on gravity fed pre-wet system with ground speed triggering of the open/close function;

Background: A number of current plow trucks at Iowa DOT have existing gravity fed pre-wet systems whose controllers are being replaced by SpreadSmart Rx systems. To make the controller switch and retain or improve the existing functionality, the system must be determined and configured in the following way:

Using Existing Raven Wiring Harness from the cab to the rear of the truck:

- 1) Install SpreadSmart Rx and conversion cable TS-4003 Rev B (for Gravity Pre-Wet Only);
- 2) Verify that current Raven wiring harness connects the “Pre-wet ball valve enable” to pin 6 on Harness J6.
- 3) Setup and trim SpreadSmart Rx as normal, except:
 - a. When you set up the Pre-Wet channel follow these steps:

WARNING		<p>Potential for injury due to unexpected operation of liquid spray system.</p> <p>High-pressure liquid spray will cause severe eye injury, with possible permanent loss of vision.</p> <p>During initial startup and testing, the liquid system may start without warning.</p> <p>Wear face and eye protection when working with active high-pressure spray systems.</p>
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VERIFY THAT FLUID IS PRESENT IN TANKS B/4 BEGINNING OPERATION.

- 1) With Power on, press the Menu switch and then press and hold the auger and pre-wet paddles **down** simultaneously to enter the configuration menu. Enter the password, then, select trim/cal and select pre-wet.

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Configuration
Enter Password:
      [*000]
      <SPINNER +/-> to change
<BLAST>=back      <PASS>=next/done
  
```

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Configuration
Setup Wizard      Advanced
System Setup      Set Clock
+ Trim/Cal        Reset All
Materials         Save and Exit
<BLAST>=done      <SPIN+/->=sel <PASS>=next
  
```

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Trims/Calibration
Auger             Speedo
Spinner           MDM Module
+ Prewet
Anti-Ice
<BLAST>=done      <SPIN+/->=sel <PASS>=next
  
```

The screen will now display the pre-wet settings. Use anti-ice toggle to change settings.

- a. Prewet Present: choose Yes;
- b. Sensor Present: choose No;
- c. Minimum Trim: use Anti-Ice paddle to raise min trim to 60000.
- d. Maximum Trim: use Anti-Ice paddle to raise max trim to 64000.
- e. Pulses per Gallon: leave set as default value;
- f. Pump max. Gal/minute: leave set as default value;

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Prewet Setup          Page 1/2
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Prewet Present:      Yes
Sensor Present:      No
→ Minimum Trim:      64000
Maximum Trim:        64000
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<SPIN+/->=sel <ICE+/->=adj <BLAST>=done

```

Use the Blast key to return to the main menu and save the new configuration. The SpreadSmart Rx Pre-wet Channel is now set to output a 12v signal whenever the vehicle is moving. This setting will turn on a 12v ball valve (3 amp max rating) whenever the truck is moving and turn it off when the truck stops..

(Using this method, the ball valve will open when the vehicle starts moving and close when it stops).