



TECH NOTE:	10-008
TITLE:	Configure <i>SpreadSmart Rx</i>™ to display hydraulic pressure
DATE:	05/3/10
REVISION:	2.0

This document describes how to configure the *SpreadSmart Rx*™ to allow it to display hydraulic system pressure. This function is only available with the VFD or TFT display (not the LCD).

Components Required: SpreadSmart Rx Mini-Tiger, HYD0925 (Pressure Transducer, cable and MDM module).

Configuration Procedure: Material Detection Module™ (MDM)

MDM is a “plug in” accessory module to accommodate digital and/ or analog sensor inputs that will integrate in any *SpreadSmart*™ product. The module includes additional inputs to support future sensors as they become available.

Pressure Sensor Display: when installed with the optional Large Format display, the *SpreadSmart*™ system displays a hydraulic pressure reading from a pressure sensor installed in the hydraulic system.

Installation: the MDM is designed to be installed in the cab of the truck in close proximity to the *SpreadSmart*™ CPU.



1) Connect all cables:

DC 1000 - Multi-plex input cable; connect to MDM 400 module;

- | | |
|------------------------------|--------------------|
| a) Hopper sensor | mplex connector 1; |
| b) Gate Height sensor | mplex connector 2; |
| c) Material Flow sensor | mplex connector 3; |
| d) Hydraulic pressure sensor | mplex connector 4; |

DC 1001 – connect between pressure transducer (on valve assembly) and Mplex connector #4;

HH1001 -Cirrus Bus Cable; connect to Bus port on MDM 400 and on *SpreadSmart*™ CPU;

MK 1003 – Power cable, connect to 12v supply, ignition hot and battery ground;

Configuration: Turn on *SpreadSmart™* and enter the configuration menu as before.

Configuration		Trims/Calibration	
Setup Wizard	Advanced	Auger	Speedo
System Setup	Set Clock	Spinner	→ MDM Module
+ Trim/Cal	Reset All	Prewet	
Materials	Save and Exit	Anti-Ice	
<BLAST>=done <SPIN+/->=sel <PASS>=next		<BLAST>=done <SPIN+/->=sel <PASS>=next	

Select Trim/Cal and select MDM Module:

Enable the MDM module and the specific sensors installed in the truck using “anti-ice +/-” key to choose yes or no.

MDM Module Setup		Page 1/3
→ MDM Module Present:	Yes	
Hopper Sensor:	Yes	
Invert Hopper Signal:	No	
Material Flow Sensor:	Yes	
Invert Flow Signal:	No	
<SPIN+/->=sel <CON+/->=adj <BLAST>=done		

a) Calibrate the Pressure Transducer

* **Pressure Sensor:** use “anti-ice” key to raise or lower sensor low and high values using the specified values supplied with the sensor chosen.

MDM Module Setup		Page 2/3
Pressure Sensor:	Yes	
Sensor Low Voltage (Vlo):	0.5	
Pressure at Vlo:	0	
Sensor High Voltage (Vhi):	5.5	
→ Pressure at Vhi:	1600	
<SPIN+/->=sel <CON+/->=adj <BLAST>=done		

These values must match the values for the pressure transducer installed in the valve.

Default values for the transducer supplied by Cirus Controls are as follows:

Sensor Low Voltage (Vlo)	=	0
Pressure at Vlo	=	0
Sensor at High Voltage (Vhi)	=	10
Pressure at Vhi	=	3625

b) Use blast key to return to menu screen and save changes;

c) Cycle the power on *SpreadSmart Rx™* and the pressure should now display on the screen. Operate system to verify proper pressure display on the display. Independent verification of pressure can be accomplished by reading a gauge installed on the valve assembly and comparing it to the pressure on the *SpreadSmart Rx™* display.