

**Installation Instructions**

## Air Drill Blockage Monitor

### Used with:

- NTA3510 and NTA3010
- CTA4000
- ADI334 and ADI345



*When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!*

## General Information

These instructions explain how to install the blockage monitor. The blockage monitors work with the system monitor to alter the operator when a seed-delivery hose is plugged. When a monitored hose is plugged, the system sounds an alarm and identifies the location of the plugged hose.

These instructions apply to:

<b>168-256A</b>	<b>NTA3510 55-Row Blockage Monitor</b>
<b>168-257A</b>	<b>NTA3510 40-Row Blockage Monitor</b>
<b>168-260A</b>	<b>NTA3010 48-Row Blockage Monitor</b>
<b>168-261A</b>	<b>NTA3010 36-Row Blockage Monitor</b>
<b>168-267A</b>	<b>ADI345 75-Row Blockage Monitor</b>
<b>168-318A</b>	<b>CTA4000 80-Row Blockage Monitor</b>
<b>168-319A</b>	<b>CTA4000 65-Row Blockage Monitor</b>
<b>168-320A</b>	<b>CTA4000 50-Row Blockage Monitor</b>

## Manual Update

Refer to air drill cart operator's manual for detailed information on safely operating, adjusting, troubleshooting and maintaining the blockage monitors. Refer to the parts manual for part identification.

- ADC1150 Air Drill Cart Operator's Manual . . . . . 167-101M
- ADC1150 Air Drill Cart Parts Manual . . . . . 167-101P
- ADC2220 Air Drill Cart Operator's Manual . . . . . 167-073M
- ADC2220 Air Drill Cart Parts Manual . . . . . 167-073P

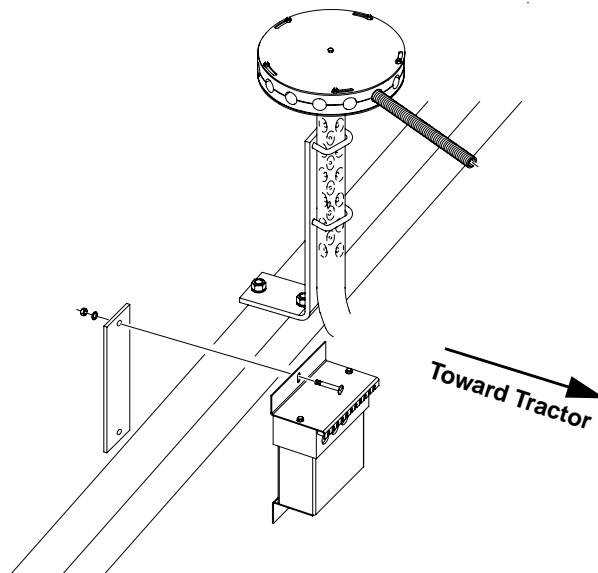
## Before You Start

Starting on page 6 are detailed listings of parts included in the blockage monitor packages. Use these lists to inventory parts received.

## Assembly Instructions

### Module and Sensor Installation

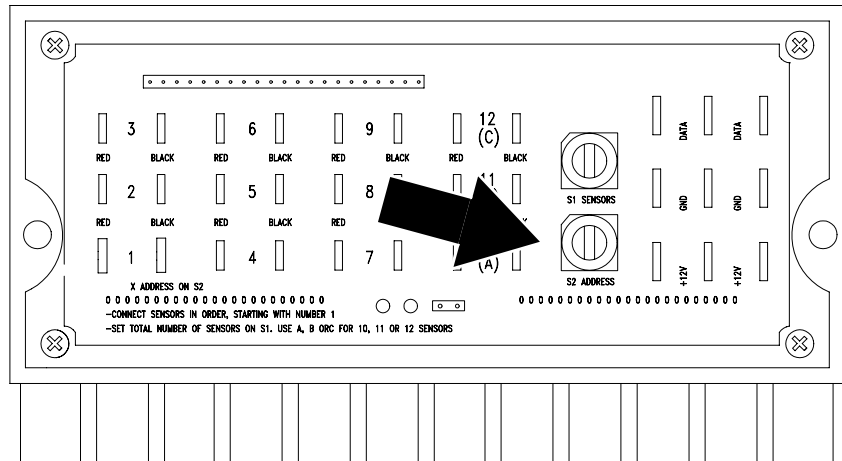
1. Mount each module on rear frame tube of implement near tower to be monitored. Clamp modules to frame so modules are to the inside of implement and connector panels face up.



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## Assembly

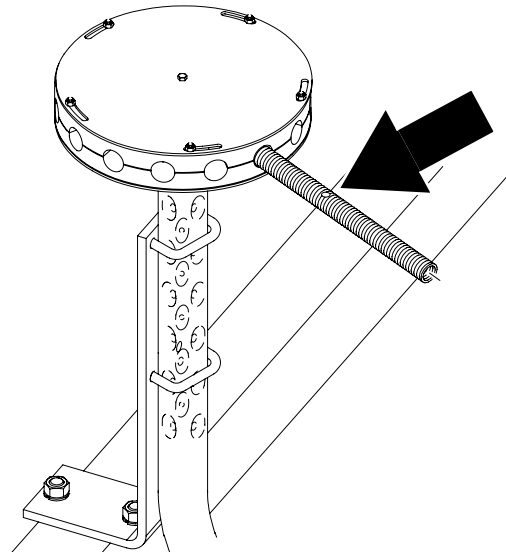
- On each module connector panel, set rotary switch marked S2 ADDRESS. Set rotary switch on far left module to 1, rotary switch on second module from left to 2 and so forth. Continue until each module is set to a unique address.



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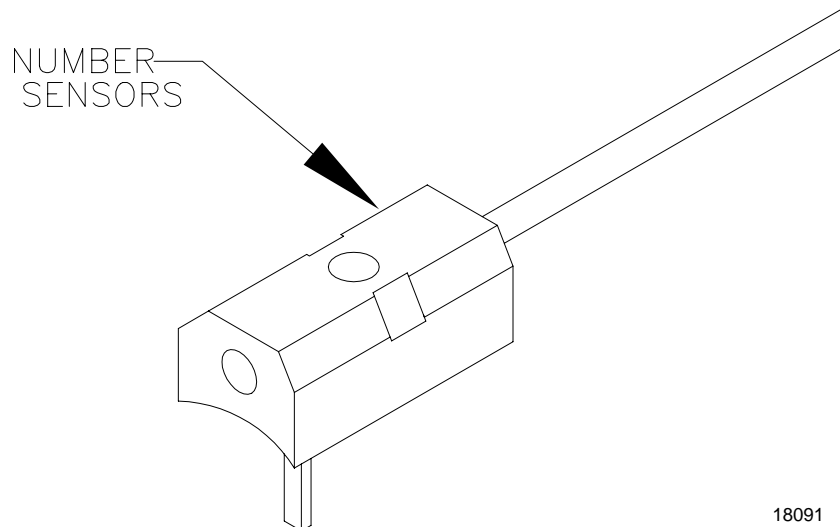
- In each secondary seed hose to be monitored, use a die grinder to make a 1/2-inch hole in top of hose near seed-distribution tower.

NOTE: Do not use a drill bit to make holes in secondary seed hoses. Using a drill bit will damage the seed hose.



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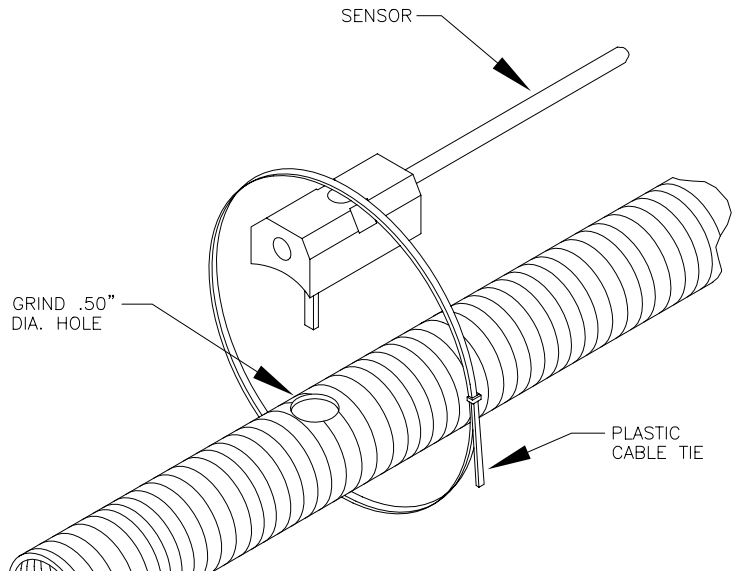
- Gather enough sensors for hoses to be monitored on far-left tower. Using marking chalk, number sensors in sequential order.



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# Assembly

- Install sensor number 1 on a secondary seed hose. To install, insert sensor pin into 1/2-inch hole and secure sensor body to secondary seed hose with a cable tie. Working clockwise around distribution tower, continue installing sensors into hoses until all sensors for tower are installed.

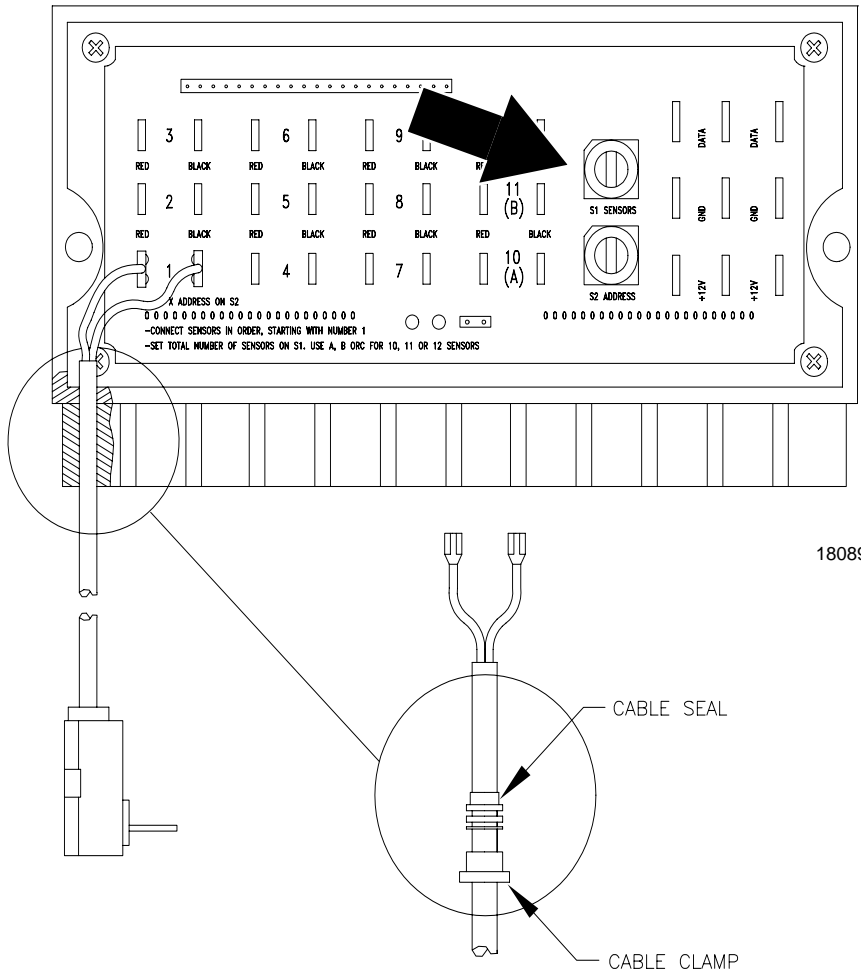


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- Connect sensors to modules. On connector panel, find numbered connector pins. Connect lead from sensor 1 to pins marked 1. Connect lead from sensor 2 to pins marked 2. Proceed until all sensors for tower are connected to module for that tower.
- After connecting sensors to module, set S1 SENSOR rotary switch on connector panel. Refer to the following table for proper switch setting

Number of sensors connected to module:	S1 SENSOR Setting
1	1
2	2
3	3
9	9
10	A
11	B
12	C

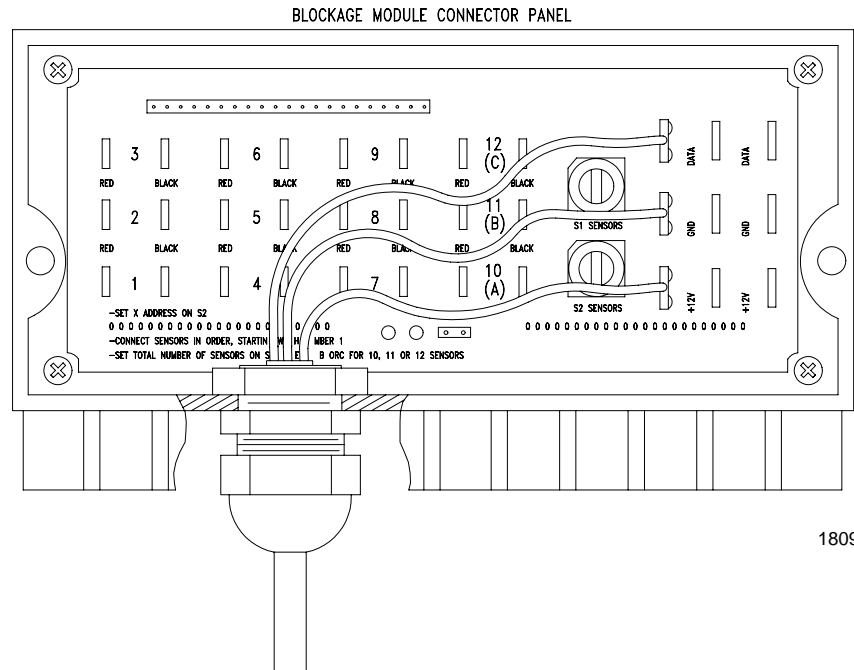
- Repeat steps 3 through 7 for each implement tower.



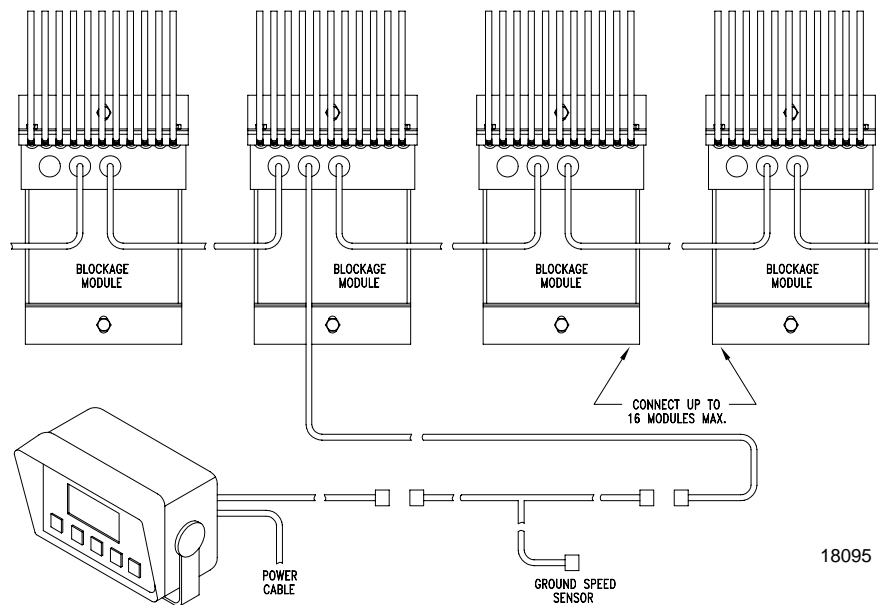
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## Assembly

9. Connect one module to monitor head. Connect three wires from monitor head to three pins on right-hand side of connector panel. Match data input/output, ground and +12 volt wires to DATA, GND and +12V pins.



10. Connect all other modules to each other, connecting the data, +12 volt and ground wires to the matching pins on each connector panel. Connection order between modules is not critical.



## Monitor Programming

For proper operation, you must program the system monitor to recognize the number of modules installed. You will need to complete this programming only during initial setup and when modules are added or removed.

To program the system:

1. Use arrow keys on monitor console until top readout on console displays FLOW.
2. Enter change-settings mode by holding down MODE key until system sounds one long beep and four short beeps. Now press and release MODE key and notice that the top readout cycles between three readings: BOXES, TYPE and SAVE Y.
3. Press and release MODE key until top readout displays BOXES. Notice that a number is displayed on the lower readout. Use arrow keys to change the lower readout until it matches the number of modules installed on the system.
4. Press and release MODE key until top readout displays TYPE. Use arrow keys to change the number on the lower readout to zero.
5. When satisfied with your settings, press and release MODE key until SAVE Y is displayed on the top readout. To save your settings, press and hold ACK key. The system will sound one long beep followed by four short beeps. Release ACK key.

**NOTE:** If you wish to exit change-settings mode without saving your settings, cycle to SAVE Y display, then press down key to change display to SAVE N. Press and hold ACK key until system finishes beeping.

## Listing of Parts

### 168-256A NTA3510, 55-Row, 7.5-Inch Blockage Monitor Package

Your Kit Includes:

Qty.	Part No.	Part Description
5	168-365D	BLOCKAGE MODULE MOUNTING BK
15	800-082C	CABLE TIE 21" LONG
100	800-112C	CABLE TIE.19X7.25 1.75D 50
10	802-389C	RHSNB 1/4-20X4 3/4 GR5
10	803-006C	NUT HEX 1/4-20 PLT
10	804-006C	WASHER LOCK SPRING 1/4 PLT
1	823-158C	VANSCO BLOCK PKG NTA55ROWS

### 168-257A NTA3510, 40-Row, 10-Inch Blockage Monitor Package

Your Kit Includes:

Qty.	Part No.	Part Description
5	168-365D	BLOCKAGE MODULE MOUNTING BK
15	800-082C	CABLE TIE 21" LONG
100	800-112C	CABLE TIE.19X7.25 1.75D 50
10	802-389C	RHSNB 1/4-20X4 3/4 GR5
10	803-006C	NUT HEX 1/4-20 PLT
10	804-006C	WASHER LOCK SPRING 1/4 PLT
1	823-159C	VANSCO BLOCK PKG NTA40ROWS

### 168-260A NTA3010 48-Row Blockage Monitor

Your Kit Includes:

Qty.	Part No.	Part Description
4	168-365D	BLOCKAGE MODULE MOUNTING BK
15	800-082C	CABLE TIE 21" LONG
100	800-112C	CABLE TIE.19X7.25 1.75D 50
8	802-389C	RHSNB 1/4-20X4 3/4 GR5
8	803-006C	NUT HEX 1/4-20 PLT
8	804-006C	WASHER LOCK SPRING 1/4 PLT
1	823-161C	VANSCO BLOCK PKG NTA3010 48

### 168-261A NTA3010 36-Row Blockage Monitor

Your Kit Includes:

Qty.	Part No.	Part Description
4	168-365D	BLOCKAGE MODULE MOUNTING BK
15	800-082C	CABLE TIE 21" LONG
100	800-112C	CABLE TIE.19X7.25 1.75D 50
8	802-389C	RHSNB 1/4-20X4 3/4 GR5
8	803-006C	NUT HEX 1/4-20 PLT
8	804-006C	WASHER LOCK SPRING 1/4 PLT
1	823-162C	VANSCO BLOCK PKG NTA3010 36

## Listing of Parts

### 168-267A ADI345 75-Row Blockage Monitor

Your Kit Includes:

Qty.	Part No.	Part Description
7	168-365D	BLOCKAGE MODULE MOUNTING BK
15	800-082C	CABLE TIE 21" LONG
140	800-112C	CABLE TIE.19X7.25 1.75D 50
14	802-289C	HHCS 1/2-13X8 GR5
14	803-006C	NUT HEX 1/4-20 PLT
14	804-006C	WASHER LOCK SPRING 1/4 PLT
1	823-168C	VANSCO BLK PKG ADI345-MUX 75

### 168-318A CTA4000 80-Row Blockage Monitor

Your Kit Includes:

Qty.	Part No.	Part Description
7	168-365D	BLOCKAGE MODULE MOUNTING BK
21	800-082C	CABLE TIE 21" LONG
100	800-112C	CABLE TIE.19X7.25 1.75D 50
14	802-389C	RHSNB 1/4-20X4 3/4 GR5
14	803-006C	NUT HEX 1/4-20 PLT
14	804-006C	WASHER LOCK SPRING 1/4 PLT
1	823-176C	VANSCO BLOCK PKG CTA4000 80

### 168-319A CTA4000 65-Row Blockage Monitor

Your Kit Includes:

Qty.	Part No.	Part Description
6	168-365D	BLOCKAGE MODULE MOUNTING BK
18	800-082C	CABLE TIE 21" LONG
100	800-112C	CABLE TIE.19X7.25 1.75D 50
12	802-389C	RHSNB 1/4-20X4 3/4 GR5
12	803-006C	NUT HEX 1/4-20 PLT
12	804-006C	WASHER LOCK SPRING 1/4 PLT
1	823-177C	VANSCO BLOCK PKG CTA4000 65

### 168-320A CTA4000 50-Row Blockage Monitor

Your Kit Includes:

Qty.	Part No.	Part Description
5	168-365D	BLOCKAGE MODULE MOUNTING BK
15	800-082C	CABLE TIE 21" LONG
100	800-112C	CABLE TIE.19X7.25 1.75D 50
10	802-389C	RHSNB 1/4-20X4 3/4 GR5
10	803-006C	NUT HEX 1/4-20 PLT
10	804-006C	WASHER LOCK SPRING 1/4 PLT
1	823-178C	VANSCO BLOCK PKG CTA4000 50