



Blockage Monitor Kits Air Drills

Used with:

- 3N-4010HDA
- CTA4000 and CT4000HD
- NTA3010 and NTA3510

General Information

Blockage monitor kits upgrade the existing DICKEY-john Intelli-ag Air Cart Control system, adding the capability to detect extreme variations in seed flow to individual rows.

These instructions explain how to install any of the following Blockage Monitor Kits:

Kit	Kit Description
168-404A	NTA30-4875 DICKEY JOHN BLOCKAG
168-405A	NTA30-3610 DICKEY JOHN BLOCKAG
168-406A	NTA35-5575 DICKEY JOHN BLOCKAG
168-407A	NTA35-4010 DICKEY JOHN BLOCKAG
168-408A	CTA40-8006 DICKEY JOHN BLOCKAG
168-409A	CTA40-6575 DICKEY JOHN BLOCKAG
168-410A	CTA40-5010 DICKEY JOHN BLOCKAG
168-411A	3N40HD-6675 DICKEY JOHN BLOCK
168-412A	3N40HD-4810 DICKEY JOHN BLOCK

If installation is being done on a new 3N-4010HDA, use the instructions in the 196-444Q Pre-Delivery manual. The instructions in this manual (168-414M) presume a drill originally delivered and setup without blockage.

Each kit updates one drill. Kits are specific to drill models and row spacings:

Air Drill Models	Use Kit	Pages
3N4010HDA-4810	168-412A	2-9, 29
3N4010HDA-6675	168-411A	
CTA4000-5010	168-410A	2-3, 10-16, 29
CTA4000HD-5010	168-410A	
CTA4000-6575	168-409A	
CTA4000HD-6575	168-409A	
CTA4000-8006	168-408A	
CTA4000HD-8006	168-408A	
NTA3010-3610	168-405A	2-3, 17-22, 29
NTA3010-4875	168-404A	
NTA3510-4010	168-407A	2-3, 23-29
NTA3510-5575	168-406A	

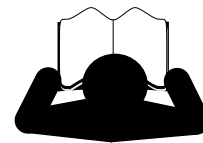


Figure 1
Existing Intelli-ag Console

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Note: The air drill must already be equipped with a DICKEY-john Intelli-ag Air Cart Control system, which includes a 5in or 10in LCD console (shown above) for the tractor cab. This system is standard with the ADC2350 and ADC2350B air drill carts.

Air drills using ADC1150, ADC2220 and ADC2250 carts, and equipped with Loup monitor systems, cannot use these blockage kits.



Before You Start

Review these instructions, with the following objectives:

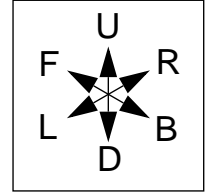
- **Compatibility:** make sure the correct kit has been ordered, and the air drill has the necessary DICKEY-john Intelli-ag Air Cart Control system.
- **Inventory:** make sure all parts are present.
- **Comprehension:** make sure the installers understand where each part is installed, and what tools are required for the task.

Tools Required

- Current Operator manual:
3N4010HDA 196-444M
CTA4000 160-269M-A
CTA4000HD 160-037M
NTA3010 160-219M-A
NTA3510 160-219M-A
- Updated Parts manual:
3N4010HDA 196-444P
CTA4000 160-269P
CTA4000HD 160-037P
NTA3010 160-219P
NTA3510 160-219P
- tractor or hydraulic power source, and;
- basic hand tools, including a power drill and $1\frac{1}{16}$ to $\frac{3}{4}$ in (17-19mm) hole saw.

Notations and Conventions

“Left” and “Right” are facing in the direction of machine travel. An orientation rose in the line art illustrations shows the directions of Left, Right, Front, Back, Up, Down.



Call-Outs

- ① to ⑨, a to z Single-character callouts identify components in the currently referenced Figure or Figures. These numbers may be reused for different items from page to page.
- ⑪ to ④① Two-digit callouts in the range 11 to 40 reference new parts from the new parts list on page 40. The descriptions match those on the parts, bags or cartons, and in your updated Parts Manual.
- ⑨① to ⑨⑧ Two-digit callouts in the range 91 to 98 reference existing parts from the list on page 41. The descriptions match those your Parts Manual.

Mount and WSMB^a Orientation

Refer to Figure 2

The kit includes a mounting plate ⑫ and WSMB ③⑨ for each tower.

The plate attaches to the tower mount ①, at an existing U-bolt ② located just above the bend in the tower tube, and under the existing washer ③ and nut ④. The plate orientation (left, right, front or back) is described in the detailed steps.

The WSMB ③⑨ mounts to the tower side of the plate, with mount ears flat against the plate, and connectors facing down.

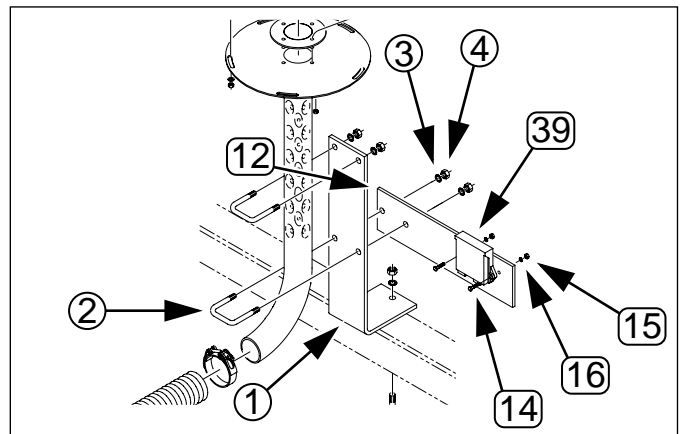


Figure 2
Typical Module Mount

27058

a. WSMB: DICKY-john Working Set MemBer module

Pre-Assembly Preparation

Work Location

1. Move the drill to a location with:
 - room to unfold it,
 - adequate illumination, and;
 - a clear surface beneath for recovery of any dropped parts.

Prepare Drill

2. Position the drill at the work location.
3. Unfold the drill.
4. Lower the row units.
5. Set tractor hydraulic remotes to Float, to relieve pressure in the lines.

Port Numbering

Tower Ports are numbered Clockwise from mount center (Port 1) to the last port number, which is the same for all towers on the same drill.

As an aid to installation, mark the port numbers after checking Port 1. If the tower weldment has shifted position since initial delivery, Port 1 may not be exactly at the mount.

Refer to Figure 3

6. Verify Port 1. Consult the **Port Assignments** table for the drill and row spacing (found in the Appendix of this manual). The first Opener entry in the table is Port 1. Openers are numbered from 1 at drill left. Follow the seed hose from that opener to the tower. This is Port 1.

7. Mark the Port numbers on the tower cap, moving clockwise (looking down on the cap) from Port 1.

8. Turn to pages for your drill:

3N-4010HDA Installationpage 4

CTA-4000 and 4000HD Installationpage 10

NTA-3010 Installationpage 17

NTA-3510 Installationpage 23

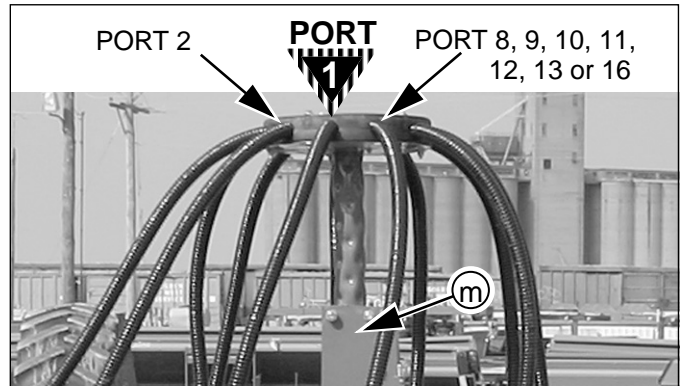


Figure 3
Tower Port Numbering
Facing Tower At Mount [®]

28185

3N-4010HDA Installation

This installation requires one of the following kits:

168-411A	3N4010HDA-6675 (66 row, 7.5in)
168-412A	3N4010HDA-4810 (48 row, 10in)

If installation is being done on a new 3N-4010HDA, use the instructions in the 196-444Q Pre-Delivery manual. The instructions in this manual (168-414M) presume a drill originally delivered and setup without blockage.

Additional installation information is found in the DICKY-john IntelliAg Air Cart Control Operator's manual.

Note: The DICKY-john manual has only general harness routing for the Great Plains air drills, and some cable part numbers are slightly different from those in the kits.

Refer to Figure 4 and Figure 5

9. Select six (6):

⑫ 168-465D DIST TOWER MODULE MOUNT PLATE

At each tower, remove the nuts ① and lock washers ② at the lower U-Bolt ③, and mount the plate ⑫.

Plate orientation is small holes to top, and:
on Towers 1 & 6: extension to drill center
on Towers 2 & 5: extension away from drill center
on Towers 3 & 4: extension to drill rear

3N: Install WSMBs

Start with the left tower (Tower 1).

Refer to Figure 4 and Figure 5

10. Select one:

③⑨ 467981100S1 INTAG WSMB/FLW MNTR MODULE 18R and two sets:

⑭ 802-224C HHCS 1/4-20X1 1/4 GR5

⑮ 804-006C WASHER LOCK SPRING 1/4 PLT

⑮ 803-006C NUT HEX 1/4-20 PLT

Mount the WSMB ③⑨ on the front of the plate ⑫, with the connector ports down.

11. Repeat step 10 for the remaining towers.

The WSMB orientation is:

on Wing towers (*Figure 4*):
connectors down, module to front

on Center towers (*Figure 5*):
connectors down, module to center

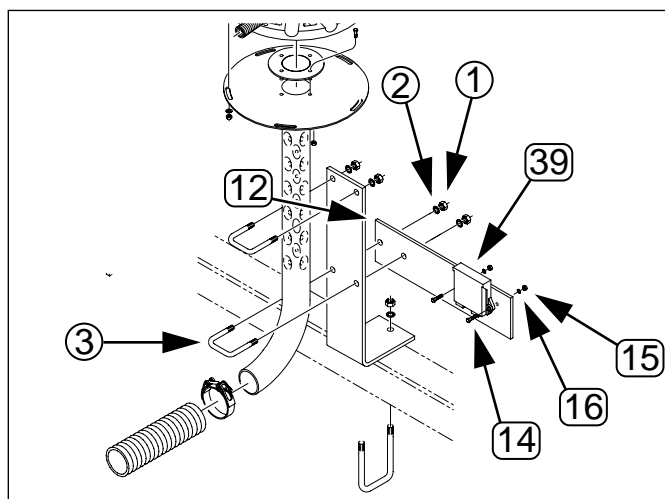
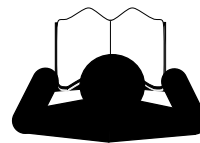


Figure 4: 3N:
Tower 2 Module Mount

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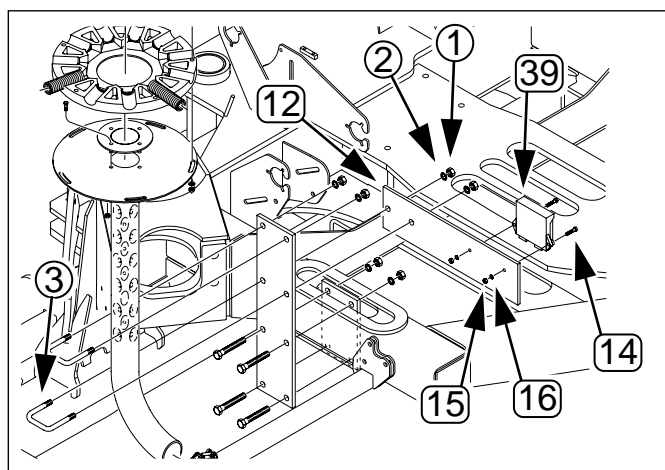


Figure 5: 3N
Tower 3 Module Mount

28182

3N: Prepare Hoses for Sensors

Refer to Figure 6

DICKEY-john Recon-II blockage sensors **30** require a hole in the hose for the detectors **1**. The sensor has flexible flaps which are tie-wrapped around the seed hose. The long flap **2** goes over the short flap **3**.

Note: Use a hole saw to make the hole. Use a high speed drill (to minimize rough edges), and cut slowly (to minimize risk of drill-through).

Using a drill bit is likely to damage the hose.

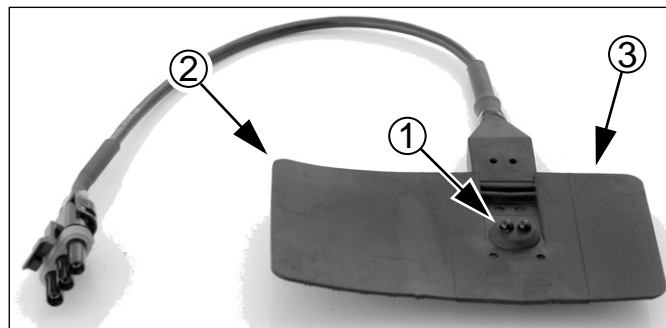


Figure 6: 3N
Blockage Sensor **30**

28197

Refer to Figure 7 (showing hole on top)

12. Drill one hole in each secondary seed hose at each tower. Check the first hole for sensor fit before drilling the remaining holes.

The hole location is approximately:

- 4** 13in (33cm)
from where the hose enters the tower.

The hole diameter is:

- 5** $1\frac{1}{16}$ to $\frac{3}{4}$ in (17-19mm)

Make the hole on the underside of the hose (toward center of tower), or rotate the hose to hole-under after drilling or installing sensor.

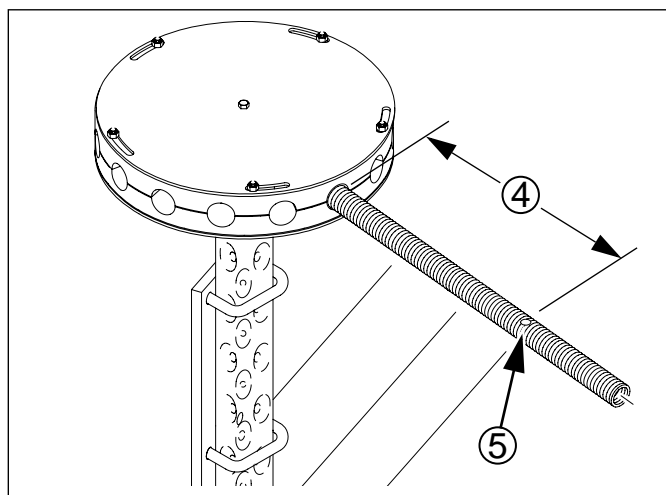


Figure 7: 3N:
Sensor Hole Location

28194

3N: Install Blockage Sensors

Refer to Figure 8 and Figure 6

13. Select one:
 - 30** 467420352S1 RECON II
14. Orient sensor **30** with signal lead toward opener. Insert the detector head **1** in the hose hole. Wrap the short flap **3** around the hose. Wrap the long flap **2** over the short flap.

Check that the long flap overlaps by at least $\frac{1}{4}$ in (6mm), but by no more than 1in (25mm). If the flap is too long, cut off any excess. Re-check overlap.

15. Select two ties from either:
 - 26** 110110050 TY WRAP BUNDLE 50-14"
 - 27** 110110099 TY WRAP BUNDLE 100-14"

Secure the sensor to the hose with ties.

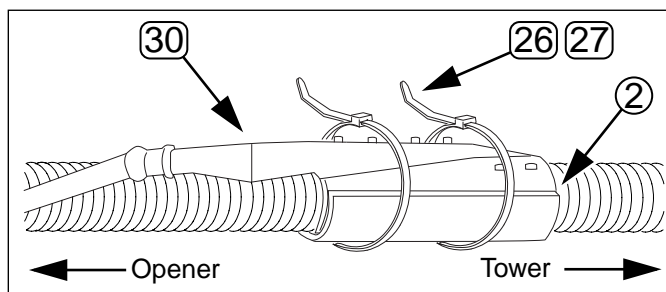


Figure 8: 3N:
Mount Sensor

28195

6 | Blockage Monitor Kits

3N: Mount Row Harnesses

Start with Tower 1 (left wing, left tower).

Refer to Figure 9

16. Select one:

③① 467751320S1 12 ROW HARNESS

Observe that the assembly has:

- ① one large connector (for the WSMB);
- ② a sealed weather-cap module; and,
- 12 row sensor connectors, numbered "ROW 1" through "ROW 12"

Note: Connector numbering matches harness-to-row only on Tower 1. At connection step 19, see "**Port Assignment**" table on page 31 or page 32.

Note: There are more sensor leads than drills rows.

- ③ "ROW 12" is unused on 3N-4010HDA-6675.
- ④ "ROW 9" through "ROW 12" are unused on 3N-4010HDA-4810.

Refer to Figure 10

17. Select one:

⑬ 800-082C CABLE TIE .31X21.5 6DIA 120LB

At the tower, position the weather-cap module ②:

- lead bundle down,
- just under the upper U-bolt ③, and;
- on the same side as the WSMB ③⑨.

Secure the module with tie ⑬ around the tower weldment and mounting plate.

18. Repeat step 16 and step 17 for Tower 2 through 6.

3N: Sensors to Harnesses

Start with opener 1 (left opener, left wing).

Refer to Figure 11

19. Using the table on page 31 or 32, determine the Harness lead ("ROW") to tower Port assignment. Isolate each lead from the bundle, and plug the assigned harness lead and sensor cable together.

20. Select one tie from either:

②⑥ 110110050 TY WRAP BUNDLE 50-14"

②⑦ 110110099 TY WRAP BUNDLE 100-14"

Tie the harness lead to the same seed hose as its assigned sensor. Tie about 1in (2.5cm) behind the cable sheath

21. Repeat step 19 and step 20 for each port on the tower, and then for each tower. One or four leads per tower are not connected. Excess cable is tie-wrapped at step 25.

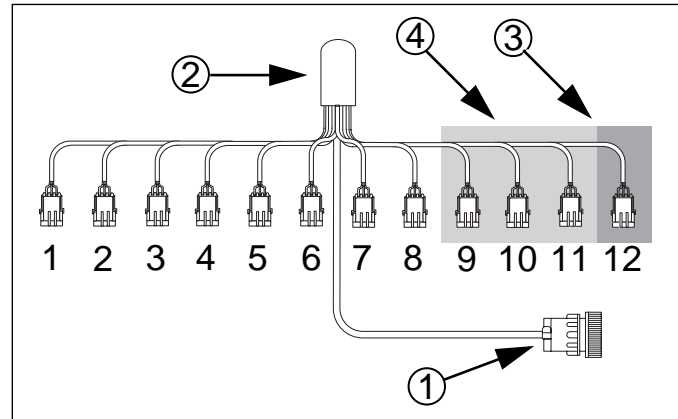


Figure 9: 3N:
Row Harness ③①

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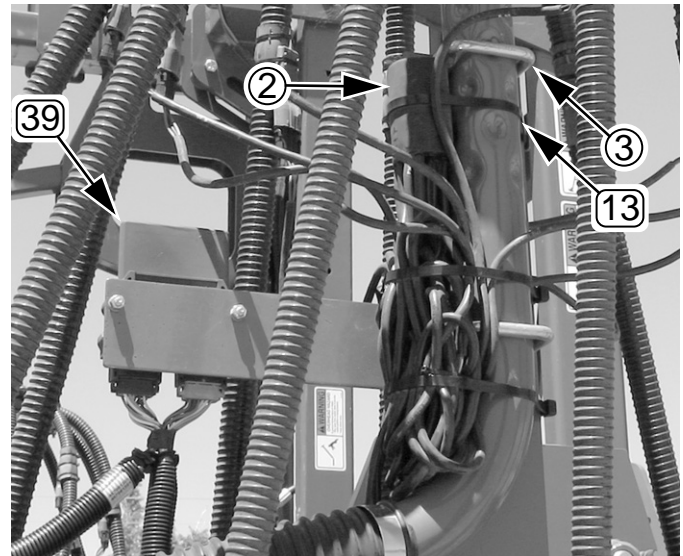


Figure 10: 3N:
Install Row Harness ③①

28199

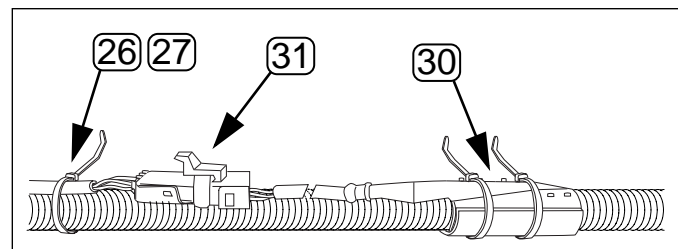


Figure 11: 3N:
Row Harness to Sensor

28196

3N: Salvage Harness

Refer to Figure 12

The existing monitor harness on the drill simply routes the bus from front to rear hitch, and consists of three cable assemblies. The blockage sensor system “splices” into the harness. Two existing cables are re-positioned.

22. Remove and save:
 (93) 467980141 10' EXT HARNESS
23. Locate cable:
 (92) 467980130 40' HITCH HARNESS

Leave it secured to the tongue, but release it from straps or ties on the drill frame.

Note: The rear hitch cable:

- (94) 467980360 3' REAR HITCH HARNESS
 is left in place.

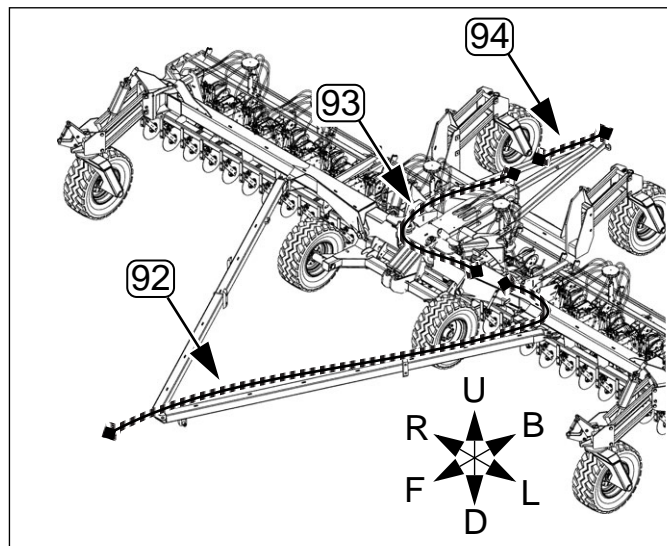


Figure 12: 3N:
 Harness Route (w/o Blockage)

28443

3N: Install WSMB Harnesses

Start with Tower 1 (left wing, left tower)

Refer to Figure 13

24. Select one:
 (40) 467981201 INT AG HARNESS, WSMB MODULE

Join the row harness connector (1) to the mating connector on the row harness (31).

Plug the WSMB connectors (2) into the WSMB (39). These connectors are not interchangeable, and are keyed to ensure correct insertion.

Refer to Figure 10 on page 6

25. Select two:
 (13) 800-082C CABLE TIE .31X21.5 6DIA 120LB

Coil up excess row harness leads and tie the bundle to the tower, above and below the lower U-bolt.

26. Repeat step 24 and step 25 for each tower.

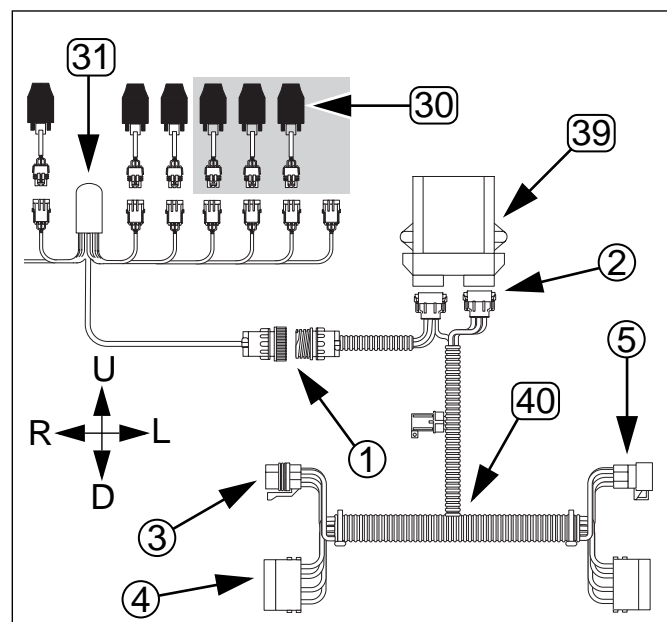


Figure 13: 3N:
 WSMB Harness (40)

28200

3N: Interconnect WSMBs

Start with the left wing.

Refer to Figure 14

27. At the left wing WSMB harnesses (40), interconnect
 ③ the female (receptacle) of left (outer) CAN bus
 with
 ⑤ the male (plug) end of the mid-wing CAN bus.
 Also connect the
 ④ power receptacle and plug

Note: The unconnected mid-wing CAN bus connector, at right (near drill center) must be a receptacle.

28. At drill center, interconnect the center WSMB harnesses as shown in Figure 14, so that the free end of the CAN bus at right is a receptacle ③.
29. At the right wing, interconnect the wing WSMB harnesses as shown in Figure 14, so that the free end of the CAN bus at right is a receptacle ③.

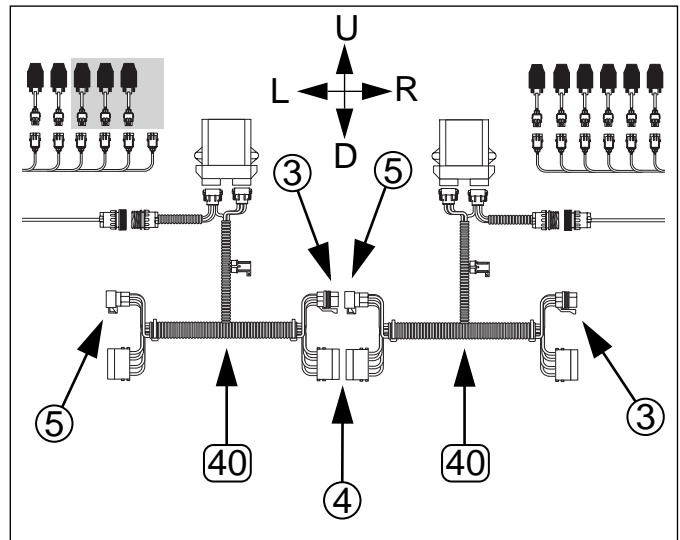


Figure 14: 3N:
Left Wing Interconnect

28201

3N: Route Drill Harness

When routing harness extensions, allow slack at towers for raising and lowering.

3N: Route Front Hitch Harness

Refer to Figure 15 and Figure 16 on page 9

30. Locate the rear end of:
 ⑨2 467980130 40' HITCH HARNESS
 released at step 23.

Route the free rear end of this cable to Tower 1 (T1),
 and connect it to the Tower 1 WSMB harness (40).

Secure hitch harness and Tower 1 WSMB harness
 with ties.

3N: Route Wing Harnesses

31. Select one saved and one new:
 ⑨3 467980141 10' EXT HARNESS
 ③5 467980141 10' EXT HARNESS

Plug cables together. Connect plug end of the
 assembly to WSMB harness at Tower 2 (T2) (left mid-
 wing). Route the harness through the hoop at the
 left wing pivot. Connect the receptacle end to the
 WSMB harness at Tower 3 (T3) (left side of center).

32. Select one new:
 ③4 467980140 DJ 20' HARNESS EXT

Connect the plug end of the extension (34) to the
 WSMB harness at Tower 4 (T4) (right center). Route
 the harness through the hoop at the right wing pivot.
 Connect the receptacle end to the WSMB harness
 at Tower 5 (T5) (right mid-wing).

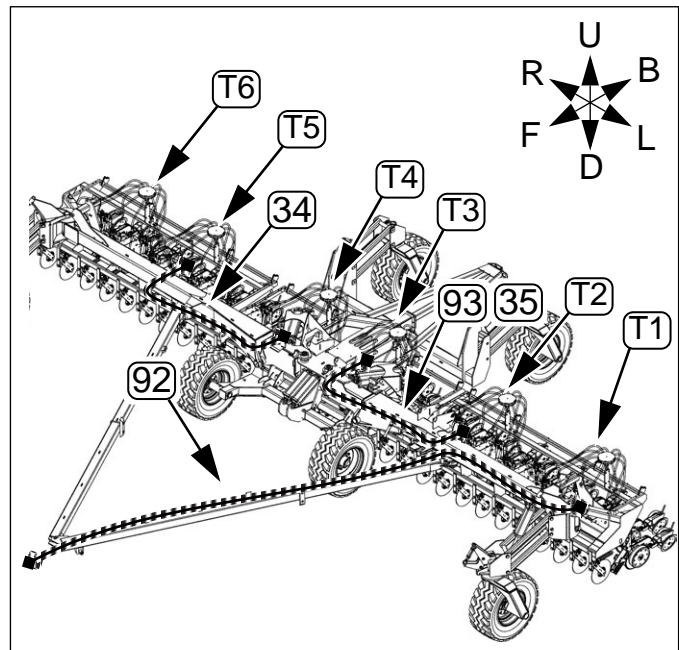


Figure 15
Blockage Harness Route (1 of 2)

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3N-4010HDA Blockage Harness Diagram

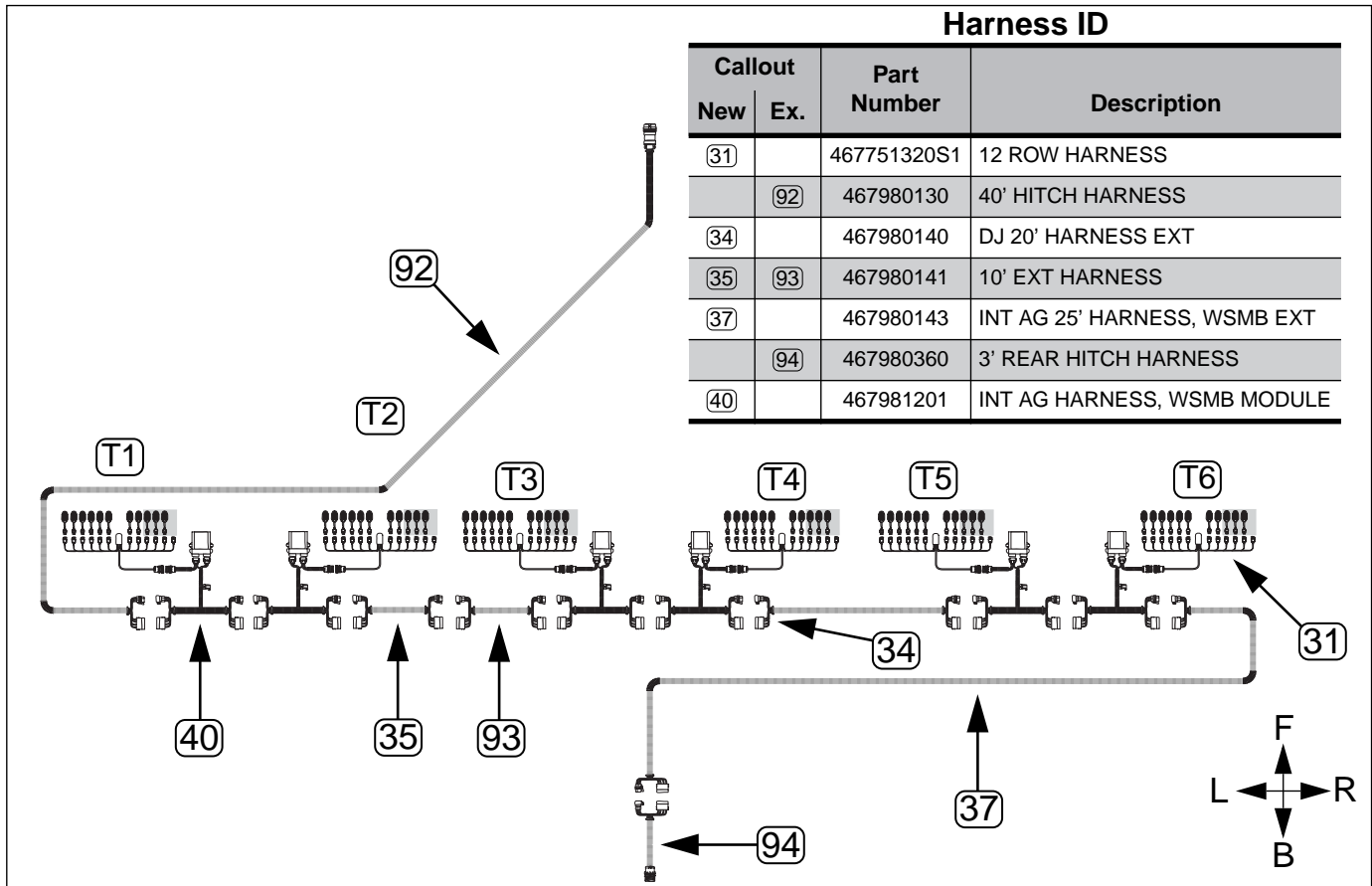


Figure 16
3N-4010HDA Harness Block Diagram

28439

3N: Install Right-Rear Extension

Refer to Figure 16 and Figure 17

33. Select one new:

(37) 467980143 INT AG 25' HARNESS, WSMB EXT

Connect the plug end of extension (37) to the WSMB harness at Tower 6 (right wing, right end). Route the harness through the hoop at the right wing pivot.

Route it down the center section to the rear hitch and connect it to existing rear hitch harness (94). Secure with ties.

34. Skip to "Close-Out" on page 29.

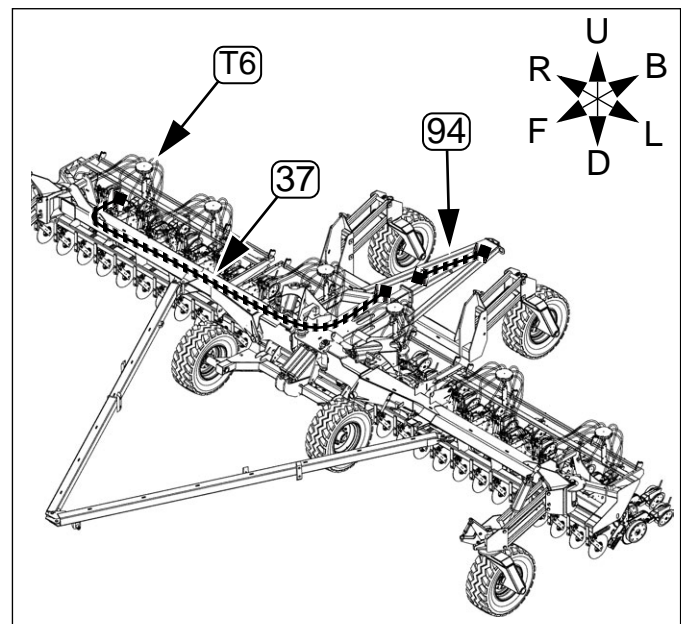


Figure 17
Blockage Harness Route (2 of 2)

28443

CTA-4000 and 4000HD Installation

This installation requires one of the following kits:

168-408A	CTA4000/HD-8006 (80 row, 6in)
168-409A	CTA4000/HD-6575 (65 row, 7.5in)
168-410A	CTA4000/HD-5010 (50 row, 10in)

Additional installation information is found in the DICKY-john IntelliAg Air Cart Control Operator's manual.

Note: The DICKY-john manual has only general harness routing for the Great Plains air drills, and some cable part numbers are slightly different from those in the kits.

Continuing from step 8 on page 3.

Refer to Figure 18 and Figure 19

9. Select five (5):

⑫ 168-465D DIST TOWER MODULE MOUNT PLATE

At each tower, remove the nuts ① and lock washers ② at the lower U-Bolt ③, and mount the plate ⑫.

Plate orientation is small holes to top, and:
 on Towers 1 & 5: extension to drill center
 on Towers 2 & 4: extension to drill rear
 on Tower 3: extension to left

CTA: Install WSMBs

Start with the left tower (Tower 1).

10. Select one:

③⑨ 467981100S1 INTAG WSMB/FLW MNTR MODULE 18R and two sets:

⑭ 802-224C HHCS 1/4-20X1 1/4 GR5

⑮ 804-006C WASHER LOCK SPRING 1/4 PLT

⑮ 803-006C NUT HEX 1/4-20 PLT

Mount the WSMB ③⑨ on the tower side of the plate ⑫, with the mounting ears flush against the plate and the connector ports facing down.

11. Repeat step 10 for the remaining towers

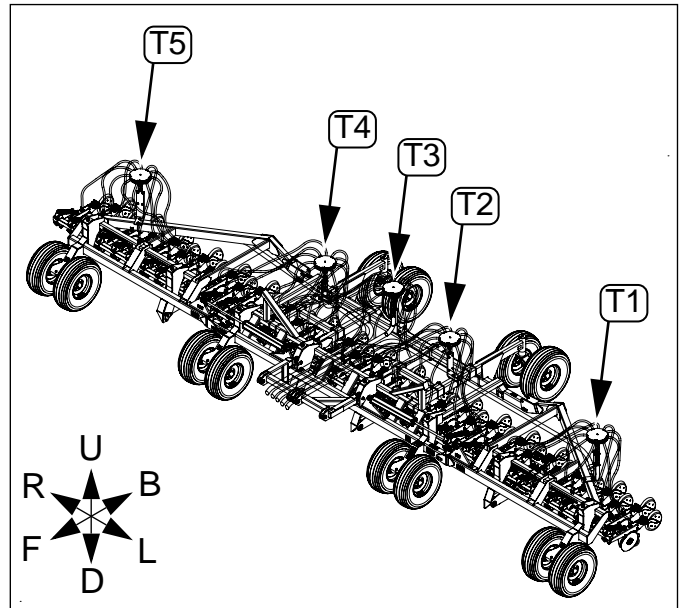


Figure 18: CTA:
CTA4000 Tower Arrangement

17186

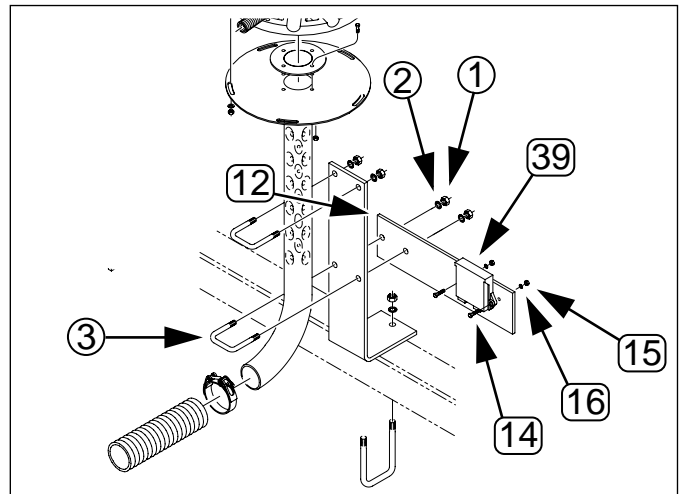


Figure 19: CTA:
Module Mount

27058

CTA: Prepare Hoses for Sensors

Refer to Figure 20

DICKEY-john Recon-II blockage sensors **30** require a hole in the hose for the detectors **1**. The sensor has flexible flaps which are tie-wrapped around the seed hose. The long flap **2** goes over the short flap **3**.

Note: Use a hole saw to make the hole. Use a high speed drill (to minimize rough edges), and cut slowly (to minimize risk of drill-through).

Using a drill bit is likely to damage the hose.

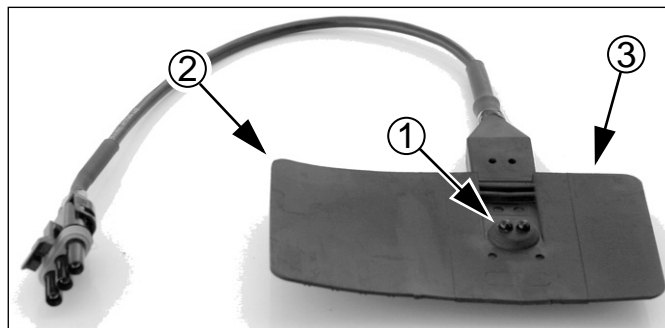


Figure 20: CTA:
Blockage Sensor **30**

28197

Refer to Figure 21 (showing hole on top)

12. Drill one hole in each secondary seed hose at each tower. Check the first hole for sensor fit before drilling the remaining holes.

The hole location is approximately:

4 13in (33cm)
from where the hose enters the tower.

The hole diameter is:

5 $1\frac{1}{16}$ to $\frac{3}{4}$ in (17-19mm)

Make the hole on the underside of the hose (toward center of tower), or rotate the hose to hole-under after drilling or installing sensor.

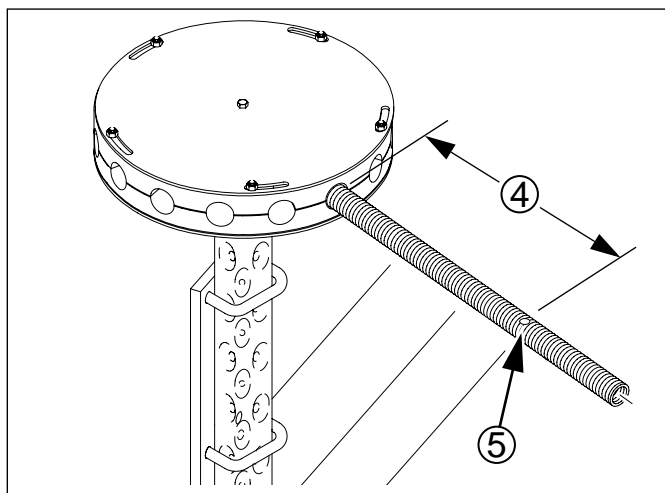


Figure 21: CTA:
Sensor Hole Location

28194

CTA: Install Blockage Sensors

Refer to Figure 22 and Figure 20

13. Select one:
30 467420352S1 RECON II
14. Orient sensor **30** with signal lead toward opener. Insert the detector head **1** in the hose hole. Wrap the short flap **3** around the hose. Wrap the long flap **2** over the short flap.

Check that the long flap overlaps by at least $\frac{1}{4}$ in (6mm), but by no more than 1in (25mm). If the flap is too long, cut off any excess. Re-check overlap.

15. Select two ties from either:
26 110110050 TY WRAP BUNDLE 50-14"
27 110110099 TY WRAP BUNDLE 100-14"

Secure the sensor to the hose with ties.

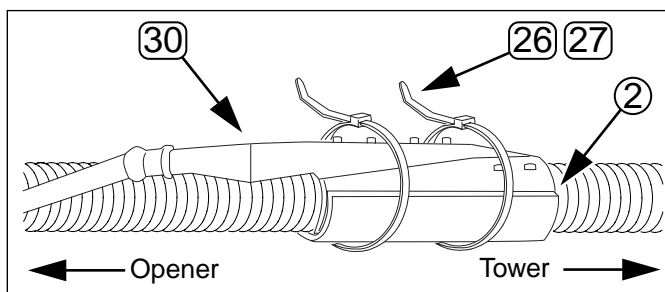


Figure 22: CTA:
Mount Sensor

28195

CTA Mount Row Harnesses

Start with Tower 1 (left wing, left tower).

Refer to Figure 23

16. Select one of:

③① 467751320S1 12 ROW HARNESS, or

③② 467751330S1 16 ROW HARNESS

Observe that the assembly has:

- ① one large connector (for the WSMB);
- ② a sealed weather-cap module; and,
- 12 or 16 row sensor connectors, numbered “ROW 1” through “ROW 12” or “ROW 16”.

Note: There may be more sensor leads than drills rows.

④ “ROW 11” and “ROW 12” are unused on CTA4000/HD-5010

④ “ROW 14” through “ROW 16” are unused on CTA4000/HD-6575

All leads are used on CTA4000/HD-8006.

Note: Connector numbering matches harness-to-row only on Tower 1. At connection step 19, see “**Port Assignment**” table on page 33, 34 or 35.

Refer to Figure 24

17. Select one:

⑬ 800-082C CABLE TIE .31X21.5 6DIA 120LB

At the tower, position the weather-cap module ②:

- lead bundle down,
- just under the upper U-bolt ③, and;
- on the same side as the WSMB ③⑨.

Secure the module with tie ⑬ around the tower weldment and mounting plate.

18. Repeat step 16 and 17 for Tower 2 through Tower 5.

CTA: Sensors to Harnesses

Start with opener 1 (left opener, left wing).

Refer to Figure 25

19. Using the table on pages 33 to 35, determine the Harness lead (“ROW”) to tower Port assignment. Isolate each lead from the bundle, and plug the assigned harness lead and sensor cable together.

20. Select one tie from either:

②⑥ 110110050 TY WRAP BUNDLE 50-14"

②⑦ 110110099 TY WRAP BUNDLE 100-14"

Tie the harness lead to the same seed hose as its assigned sensor. Tie about 1in (2.5cm) behind the cable sheath

21. Repeat step 19 and step 20 for each port on the tower, and then for each tower. One or four leads per tower are not connected. Excess cable is tie-wrapped at step 23.

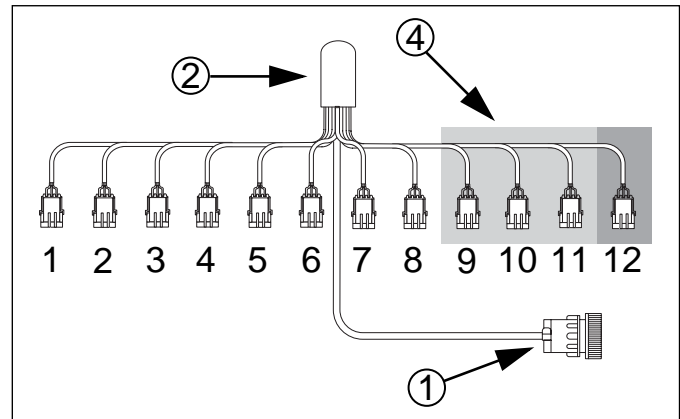


Figure 23: CTA:
Row Harness ③①

28198

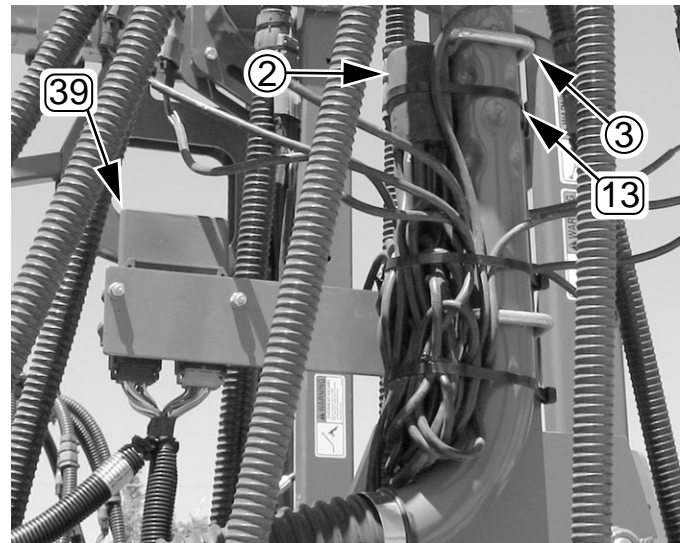


Figure 24: CTA:
Install Row Harness ③①

28199

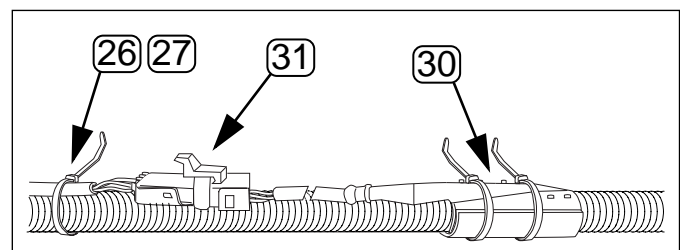


Figure 25: CTA:
Row Harness to Sensor

28196

CTA: Install WSMB Harnesses

Start with Tower 1 (left wing, left tower)

Refer to Figure 26

22. Select one:

④⑩ 467981201 INT AG HARNESS, WSMB MODULE

Join the row harness connector ① to the mating connector on the row harness ③①.

Plug the WSMB connectors ② into the WSMB ③⑨. These connectors are not interchangeable, and are keyed to ensure correct insertion.

Refer to Figure 24 on page 12

23. Select two:

①③ 800-082C CABLE TIE .31X21.5 6DIA 120LB

Coil up excess row harness leads and tie the bundle to the tower, above and below the lower U-bolt.

24. Repeat step 22 and step 23 for each tower.

CTA: Extend Cart Harness

Refer to Figure 27

25. Locate the existing cart WSMT:

⑨⑤ 467980817S1 WSMTII GP AIR CART MODULE and the harness connected to it:

⑨⑥ 467980856 GP WSMTII AIR CART HARNESS

Refer to Figure 28 and Figure 32 on page 15

26. Remove and save the CAN bus terminator:

⑨① 467980126 MINI CAN TERMINATOR

27. At Tower 5, plug the saved CAN bus terminator into the WSMB harness ④⑩.

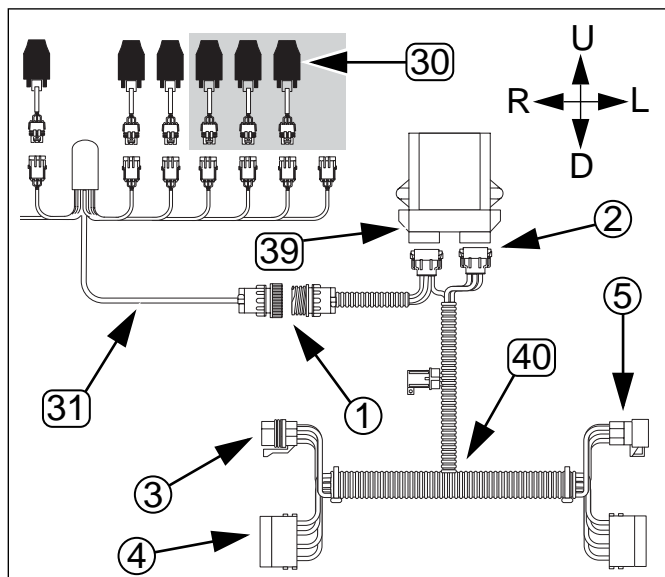


Figure 26: CTA:
WSMB Harness ④⑩

28200

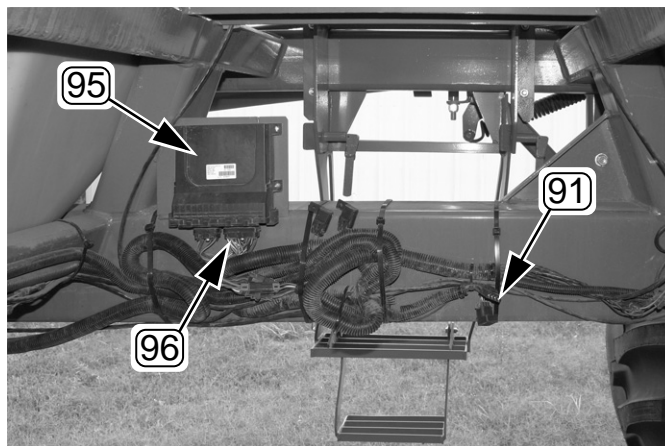


Figure 27: CTA:
Cart Harness ⑨⑥ Location

28430

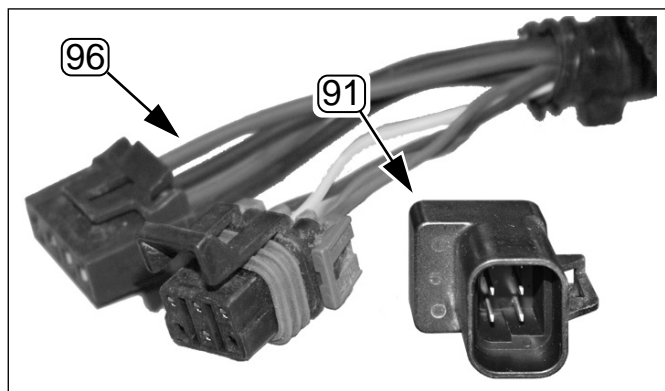


Figure 28: CTA:
CAN Terminator ⑨①

28429

14 | Blockage Monitor Kits

Refer to Figure 29

28. Select one each:
 (35) 467980141 10' EXT HARNESS
 (38) 467980360 3' REAR HITCH HARNESS
 Interconnect these cables.
29. Connect the new cable assembly ((35)+(38)) to the existing cart WSMT harness (96).

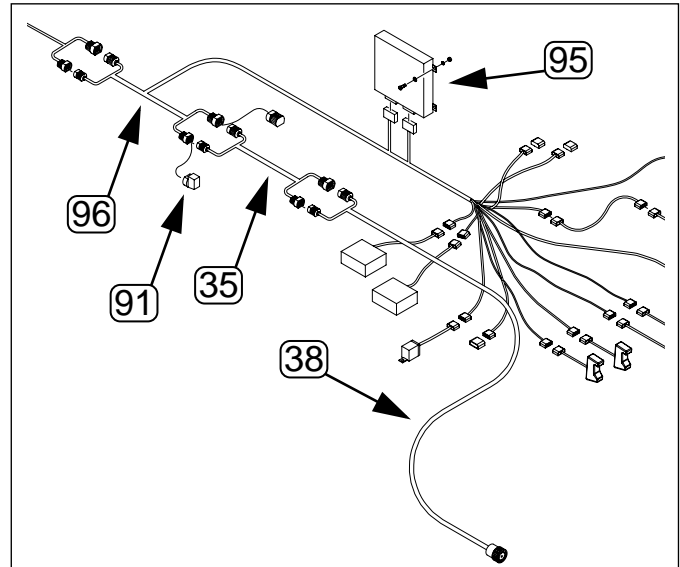


Figure 29: CTA:
Extend Cart Harness

26400

Refer to Figure 30

30. Route the extended cart harness along the right lower frame tube, up the right rear angled corner tube, and left across the upper rear tube.

Mount the receptacle end of the harness in the available large hole ① at the inside (electrical) bulkhead at the left rear of the cart.

Secure the harness with ties.

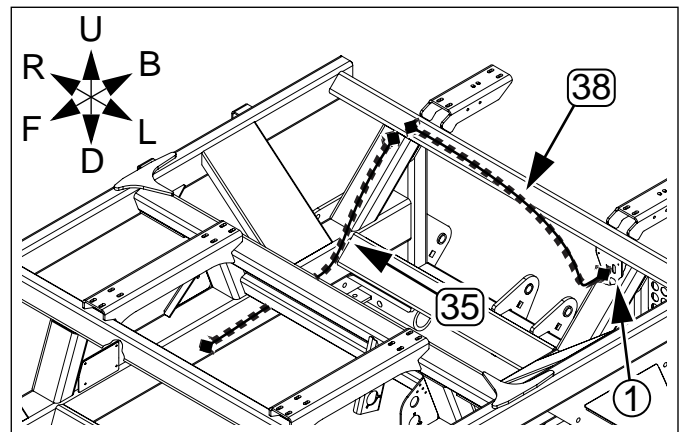


Figure 30: CTA:
Cart Harness Extension Routing

28432

CTA: Complete Drill Harness

Refer to Figure 31 and Figure 32 on page 15

31. Select one new:
 (33) 467980131 20' HITCH HARNESS

Route the single-connector end from the cart electrical bulkhead ①. Leave ample slack for hitch movement.

Follow the left wing hydraulic hoses to the Tower 1 WSMB harness. Leave ample slack near the wing pivots for folding.

Join the two-connector end to the WSMB harness (40) at Tower 1. Secure hitch harness with ties.

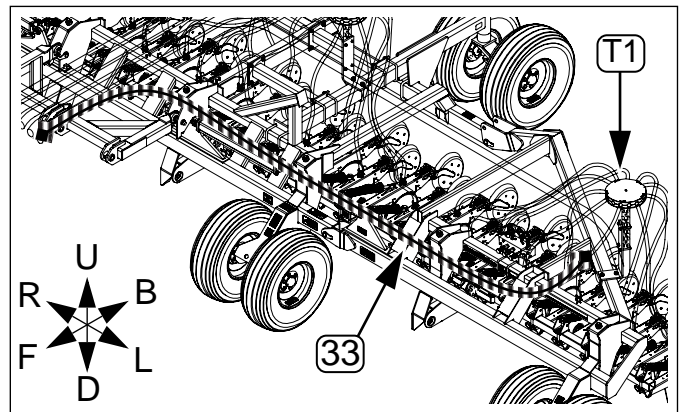


Figure 31: CTA:
Hitch Harness Routing

17186

CTA Blockage Harness Diagram

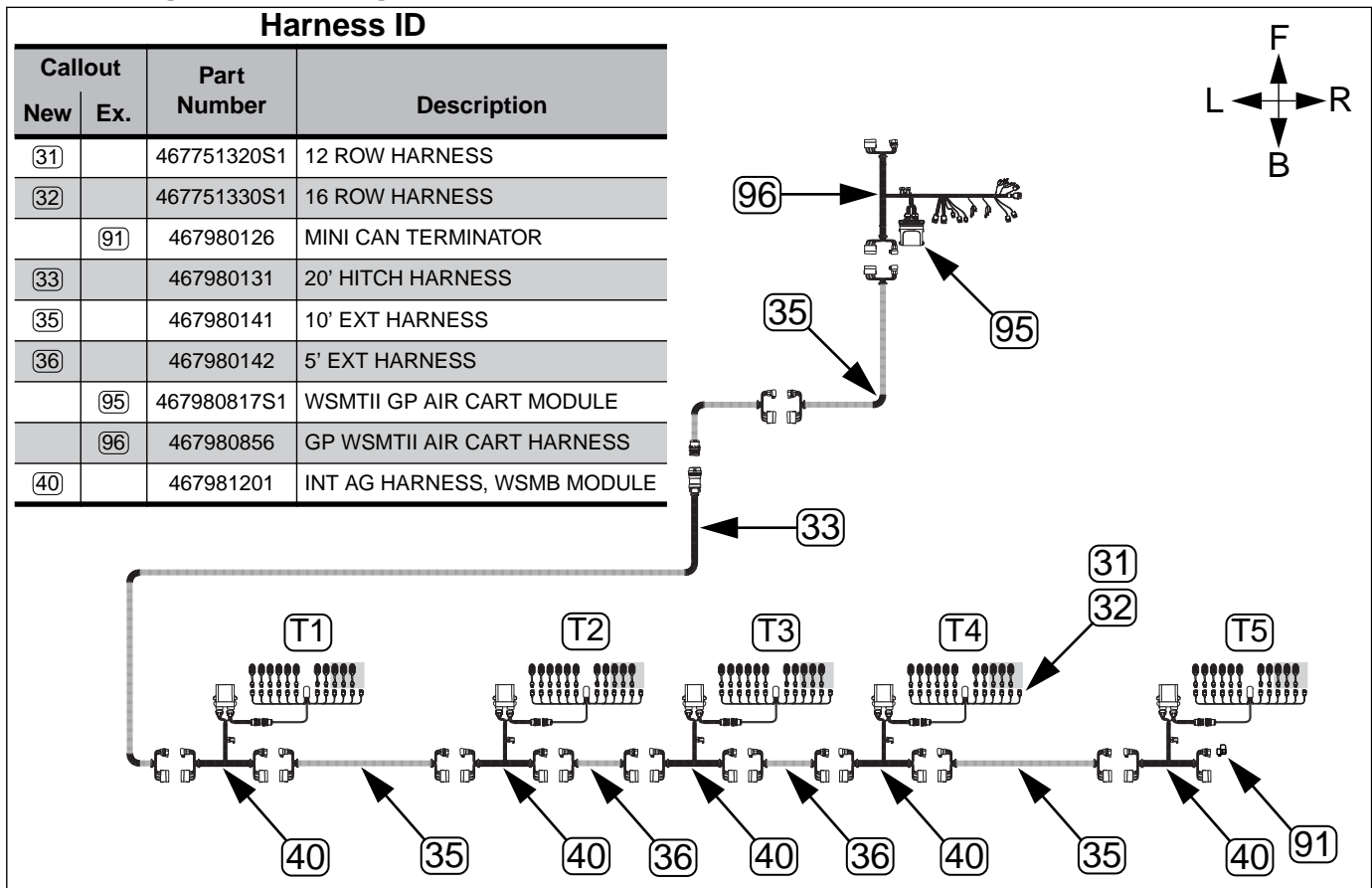


Figure 32
CTA-4000/HD Harness Block Diagram

28431

Refer to Figure 32 and Figure 33

32. Select one new:
35 467980141 10' EXT HARNESS
- Connect one end to the WSMB harness 40 at Tower 1.
- Route the harness 35 to Tower 2, following the large seed inlet hose.
- Connect extension 35 to WSMB harness at Tower 2. Secure extension with ties.
33. Select one new:
36 467980142 5' EXT HARNESS
- Connect one end to the WSMB harness 40 at Tower 2.
- Route the harness 36 to Tower 3, following the nearest cross-tube.
- Connect extension 36 to WSMB harness at Tower 3. Secure extension with ties.

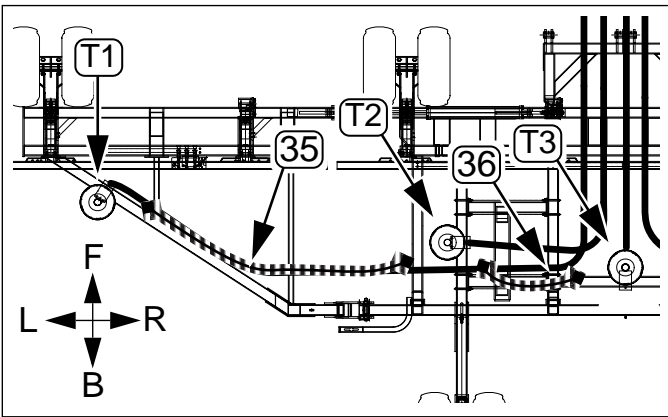


Figure 33: CTA:
Tower 1 to Towers 2 and 3

28436

Refer to Figure 34 and Figure 32 on page 15

34. Select one new:

③⑥ 467980142 5' EXT HARNESS

Connect one end to the WSMB harness ④⑩ at Tower 3.

Route the harness ③⑥ to Tower 4, following the nearest cross-tube.

Connect extension ③⑥ to WSMB harness at Tower 4. Secure extension with ties.

35. Select one new:

③⑤ 467980141 10' EXT HARNESS

Connect one end to the WSMB harness ④⑩ at Tower 4.

Route the harness ③⑤ to Tower 5, following the large seed inlet hose.

Connect extension ③⑤ to WSMB harness at Tower 2. Secure extension with ties.

36. Skip to "Close-Out" on page 29.

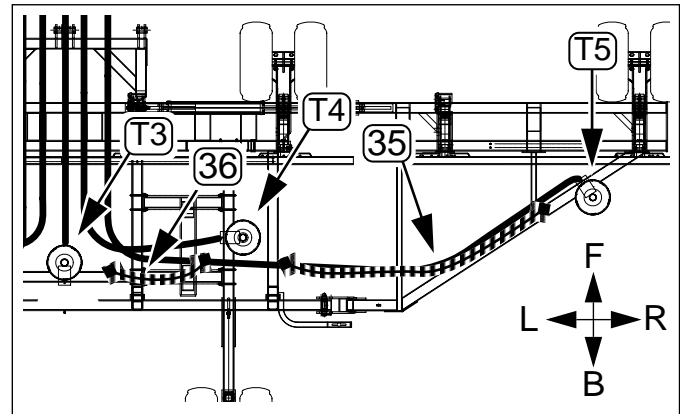


Figure 34: CTA:
Tower 3 to Towers 4 and 5

28436

NTA-3010 Installation

This installation requires one of the following kits:

168-404A NTA3010-4875 (48 row, 7.5in)
 168-405A NTA3010-3610 (36 row, 10in)

Additional installation information is found in the DICKY-john IntelliAg Air Cart Control Operator's manual.

Note: The DICKY-john manual has only general harness routing for the Great Plains air drills, and some cable part numbers are slightly different from those in the kits.

Continuing from step 8 on page 3.

Refer to Figure 35 and Figure 36

9. Select four (4):

⑫ 168-465D DIST TOWER MODULE MOUNT PLATE

At each tower, remove the nuts ① and lock washers ② at the lower U-Bolt ③, and mount the plate ⑫.

Plate orientation is small holes to top, and extensions to drill center.

NTA30: Install WSMBs

Start with the left tower (Tower 1).

10. Select one:

③⑨ 467981100S1 INTAG WSMB/FLW MNTR MODULE 18R and two sets:

⑭ 802-224C HHCS 1/4-20X1 1/4 GR5

⑮ 804-006C WASHER LOCK SPRING 1/4 PLT

⑮ 803-006C NUT HEX 1/4-20 PLT

Mount the WSMB ③⑨ on the tower side of the plate ⑫, with the mounting ears flush against the plate and the connector ports facing down.

11. Repeat step 10 for the remaining towers

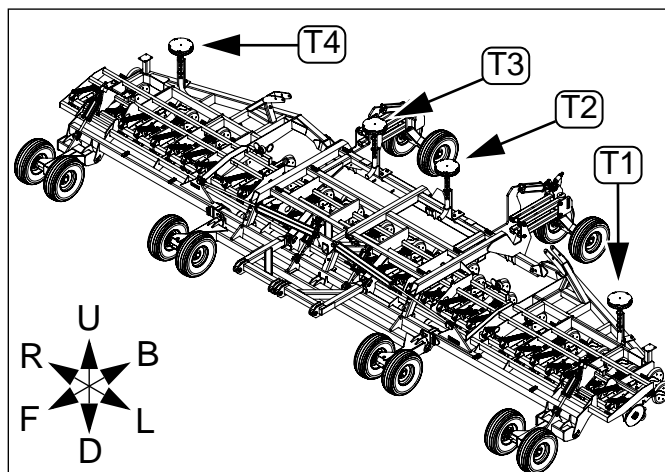


Figure 35
NTA3010 Tower Arrangement

28437

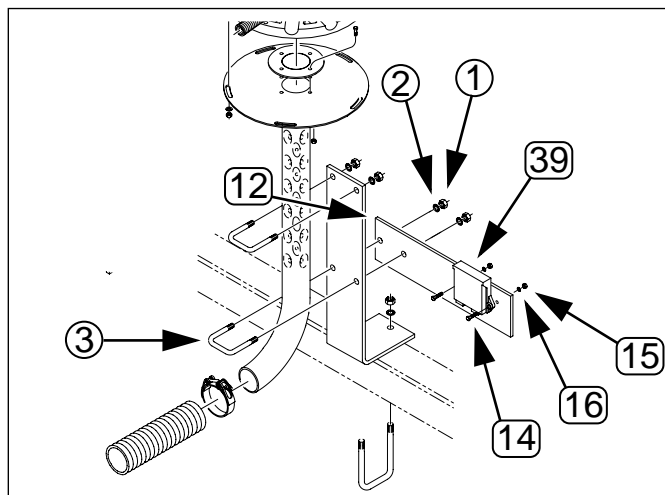


Figure 36: NTA30:
Module Mount

27058

NTA30: Prepare Hoses for Sensors

Refer to Figure 37

DICKEY-john Recon-II blockage sensors **30** require a hole in the hose for the detectors **1**. The sensor has flexible flaps which are tie-wrapped around the seed hose. The long flap **2** goes over the short flap **3**.

Note: Use a hole saw to make the hole. Use a high speed drill (to minimize rough edges), and cut slowly (to minimize risk of drill-through).

Using a drill bit is likely to damage the hose.

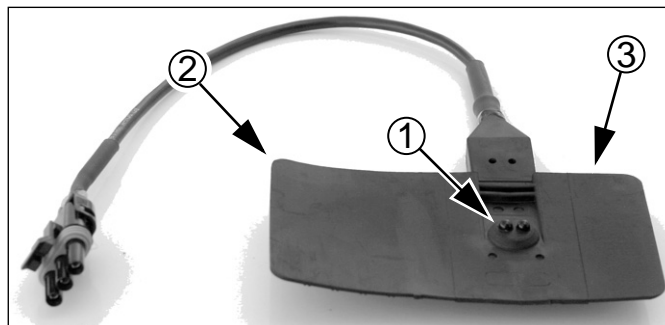


Figure 37: NTA30:
Blockage Sensor **30**

28197

Refer to Figure 38 (showing hole on top)

12. Drill one hole in each secondary seed hose at each tower. Check the first hole for sensor fit before drilling the remaining holes.

The hole location is approximately:

- 4** 13in (33cm)
from where the hose enters the tower.

The hole diameter is:

- 5** $1\frac{1}{16}$ to $\frac{3}{4}$ in (17-19mm)

Make the hole on the underside of the hose (toward center of tower), or rotate the hose to hole-under after drilling or installing sensor.

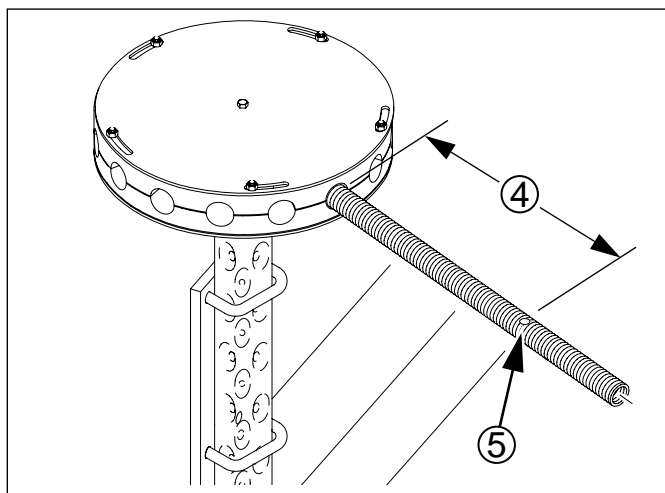


Figure 38: NTA30:
Sensor Hole Location

28194

NTA30: Install Blockage Sensors

Refer to Figure 39 and Figure 37

13. Select one:
30 467420352S1 RECON II
14. Orient sensor **30** with signal lead toward opener. Insert the detector head **1** in the hose hole. Wrap the short flap **3** around the hose. Wrap the long flap **2** over the short flap.

Check that the long flap overlaps by at least $\frac{1}{4}$ in (6mm), but by no more than 1in (25mm). If the flap is too long, cut off any excess. Re-check overlap.

15. Select two ties from either:
26 110110050 TY WRAP BUNDLE 50-14"
27 110110099 TY WRAP BUNDLE 100-14"

Secure the sensor to the hose with ties.

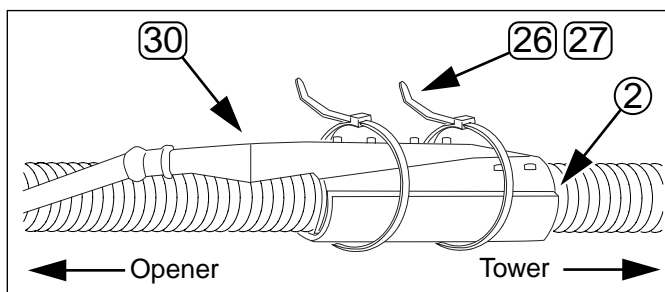


Figure 39: NTA30:
Mount Sensor

28195

NTA30 Mount Row Harnesses

Start with Tower 1 (left wing, left tower).

Refer to Figure 40

16. Select one of:

- ③① 467751320S1 12 ROW HARNESS, or
- ③② 467751330S1 16 ROW HARNESS

Observe that the assembly has:

- ① one large connector (for the WSMB);
- ② a sealed weather-cap module; and,
- 12 or 16 row sensor connectors, numbered "ROW 1" through "ROW 12".

Note: There may be more sensor leads than drills rows.

④ "ROW 10" through "ROW 12" are unused on NTA3010-3610

All leads are used on NTA3010-4875.

Note: Connector numbering matches harness-to-row only on Tower 1. At connection step 19, see "**Port Assignment**" table on page 36 or 37.

Refer to Figure 41

17. Select one:

- ⑬ 800-082C CABLE TIE .31X21.5 6DIA 120LB

At the tower, position the weather-cap module ②:

- lead bundle down,
- just under the upper U-bolt ③, and;
- on the same side as the WSMB ③⑨.

Secure the module with tie ⑬ around the tower weldment and mounting plate.

18. Repeat step 16 and step 17 for Tower 2 through Tower 4.

NTA30: Sensors to Harnesses

Start with opener 1 (left opener, left wing).

Refer to Figure 42

19. Using the table on pages 36 or 37, determine the Harness lead ("ROW") to tower Port assignment. Isolate each lead from the bundle, and plug the assigned harness lead and sensor cable together.

20. Select one tie from either:

- ②⑥ 110110050 TY WRAP BUNDLE 50-14"
- ②⑦ 110110099 TY WRAP BUNDLE 100-14"

Tie the harness lead to the same seed hose as its assigned sensor. Tie about 1in (2.5cm) behind the cable sheath

21. Repeat step 19 and step 20 for each port on the tower, and then for each tower. One or four leads per tower are not connected. Excess cable is tie-wrapped at step 23.

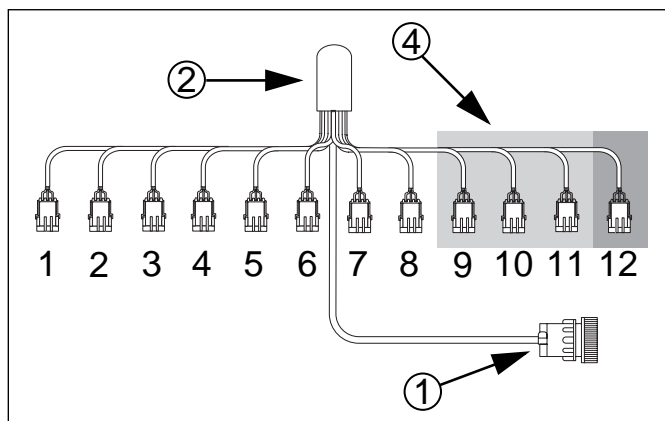


Figure 40: NTA30:
Row Harness ③① or ③②

28198

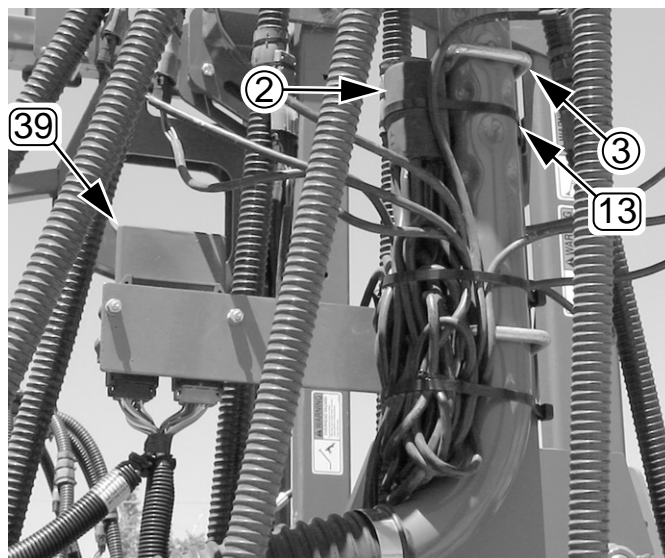


Figure 41: NTA30:
Install Row Harness ③①

28199

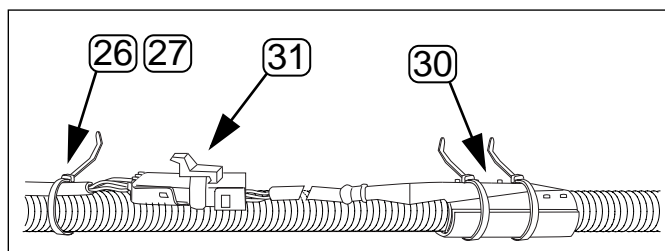


Figure 42: NTA30:
Row Harness to Sensor

28196

NTA30: Install WSMB Harnesses

Start with Tower 1 (left wing, left tower)

Refer to Figure 43

22. Select one:

④① 467981201 INT AG HARNESS, WSMB MODULE

Join the row harness connector ① to the mating connector on the row harness ③①.

Plug the WSMB connectors ② into the WSMB ③⑨. These connectors are not interchangeable, and are keyed to ensure correct insertion.

Refer to Figure 41 on page 19

23. Select two:

①③ 800-082C CABLE TIE .31X21.5 6DIA 120LB

Coil up excess row harness leads and tie the bundle to the tower, above and below the lower U-bolt.

24. Repeat step 22 and step 23 for each tower.

Refer to Figure 44, 45 and Figure 46 on page 21

25. Select one new:

③④ 467980140 DJ 20' HARNESS EXT

26. At the front center of the drill, locate the existing implement WSMB:

⑨⑦ 467982000S1 PLNTR CNTRL OUTPUT MODULE(POM)

At the WSMB connectors, follow harness:

⑨⑧ 467983502 DJ 2SOL YP24LIFT/HITCH FCM HRN

Locate the CAN bus terminator:

⑨① 467980126 MINI CAN TERMINATOR

27. Remove and save the terminator ⑨①.

Connect the 20ft harness extension ③④ in its place (two connectors).

Refer to Figure 45 and Figure 46 on page 21

28. At Tower 4, plug the saved CAN bus terminator ⑨① into the WSMB harness ④①.

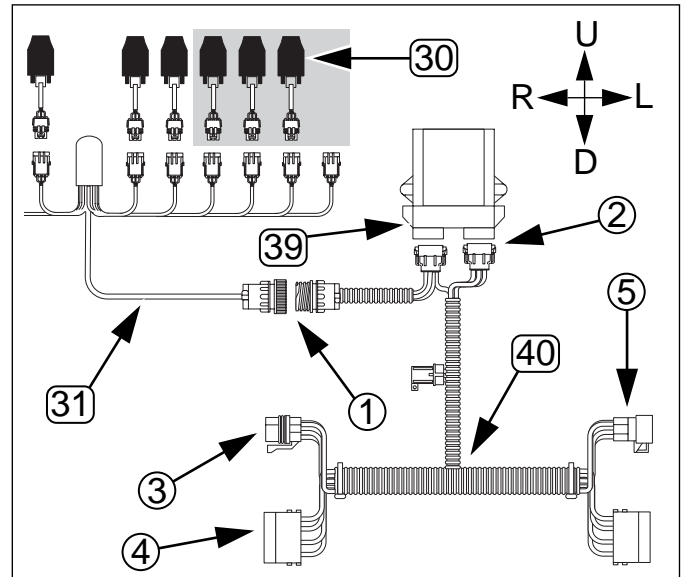


Figure 43: NTA30:
WSMB Harness ④①

28200

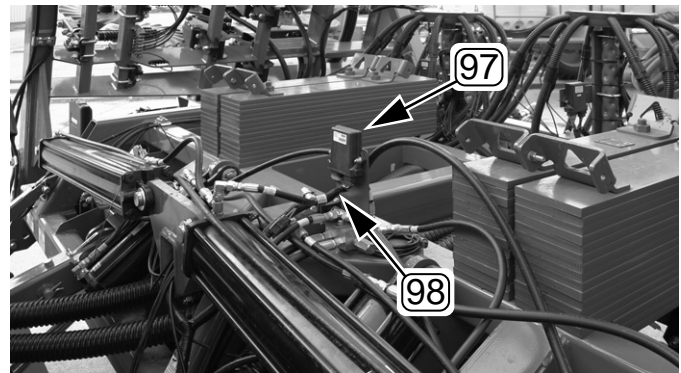


Figure 44: NTA30:
Existing WSMB ⑨⑦ Location

28438

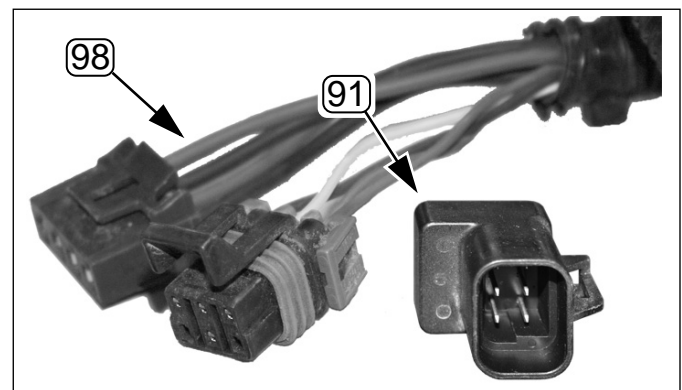


Figure 45: NTA30:
CAN Terminator ⑨①

28429

NTA30 Blockage Harness Diagram

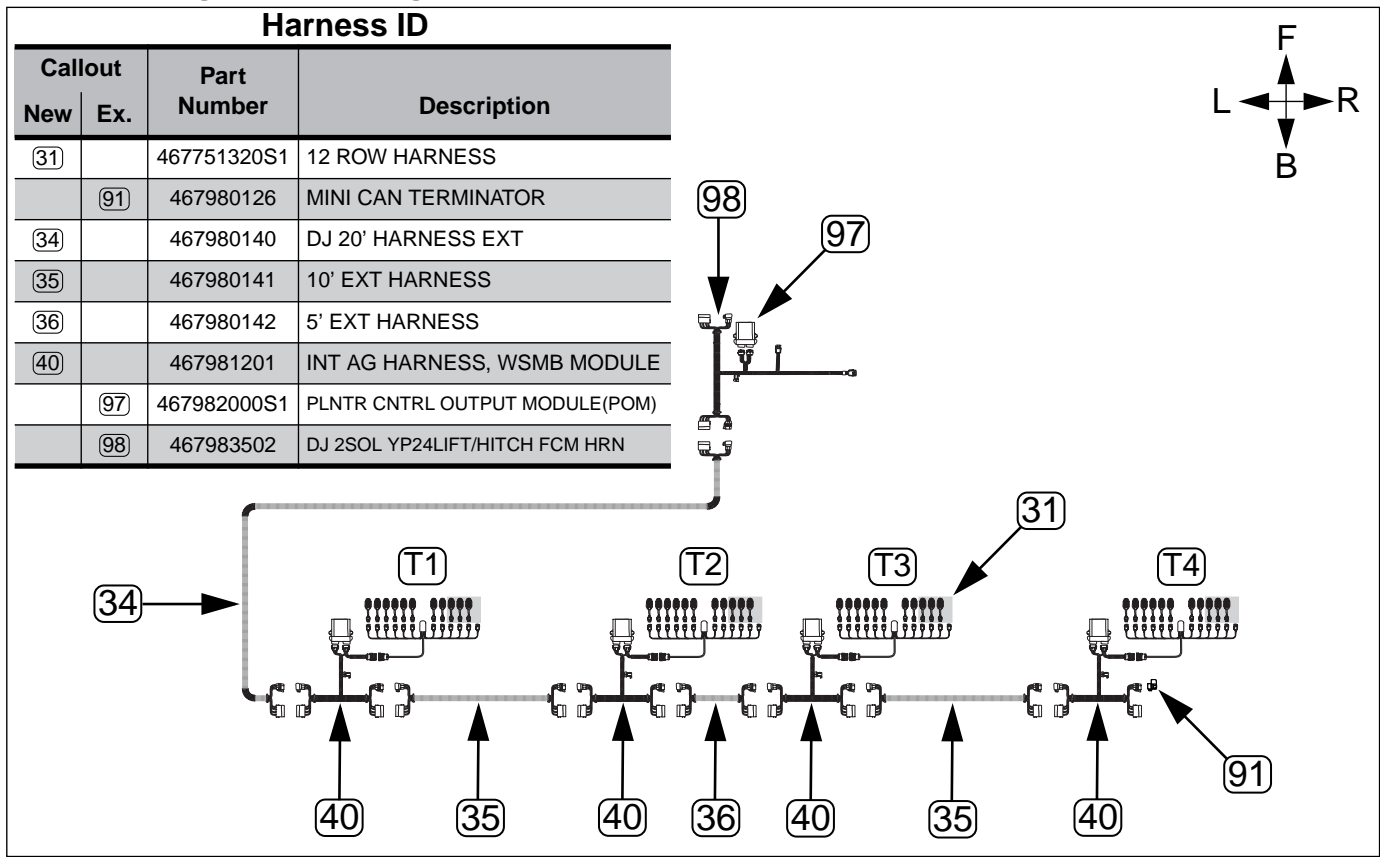


Figure 46
NTA-3010 Harness Block Diagram

28440

Refer to Figure 46 and Figure 47

29. Following the large inlet seed tube to Tower 1, route 20ft extension harness (34) to the WSMB at Tower one. Connect it to the WSMB harness (40). Do not secure harness with ties until the next step.

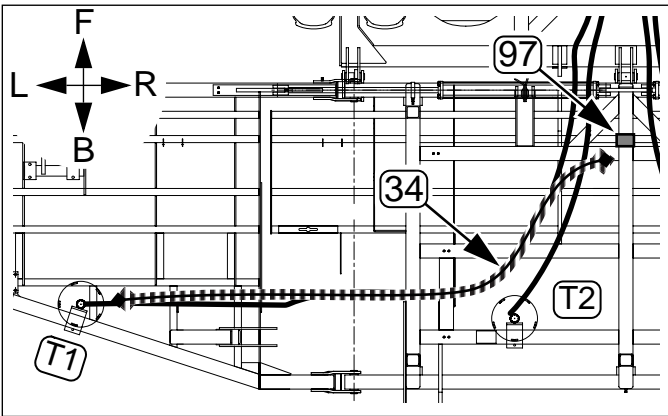


Figure 47: NTA30:
Implement WSMB to Tower 1

16899

22 | Blockage Monitor Kits

Refer to Figure 48 and Figure 46 on page 21

30. Select one new:

③⑤ 467980141 10' EXT HARNESS

Following the Tower 1 inlet seed tube again, route this extension between the WSMB harness at Tower 1 and the WSMB harness at Tower 2. Connect both ends of the extension.

Allowing slack for wing folding, secure harnesses ③④ and ③⑤ with cable ties.

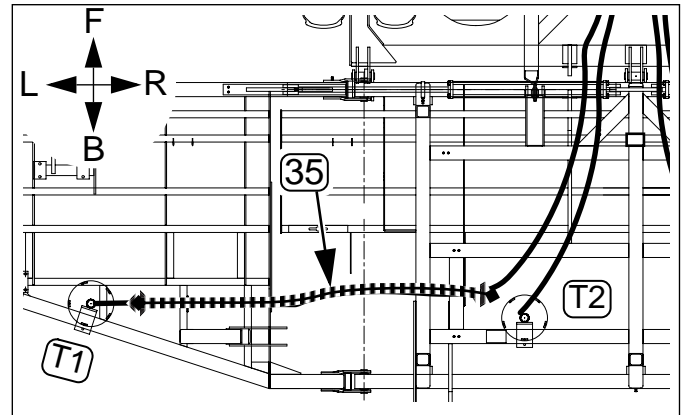


Figure 48: NTA30:
Tower 1 to Tower 2

16899

Refer to Figure 49 and Figure 46 on page 21

31. Select one new:

③⑥ 467980142 5' EXT HARNESS

Route this extension between the WSMB harness at Tower 2 and the WSMB harness at Tower 3. Connect both ends of the extension.

Secure harness ③⑥ to the cross-tube with cable ties.

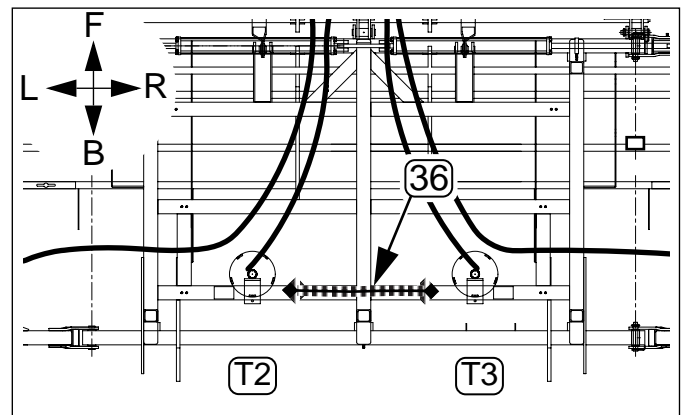


Figure 49: NTA30:
Tower 2 to Tower 3

16899

Refer to Figure 50 and Figure 46 on page 21

32. Select one new:

③⑤ 467980141 10' EXT HARNESS

Following the inlet seed hose for Tower 4, route this extension between the WSMB harness at Tower 3 and the WSMB harness at Tower 4. Connect both ends of the extension.

Allowing slack for wing folding, secure harness ③⑤ with cable ties.

33. Skip to "Close-Out" on page 29.

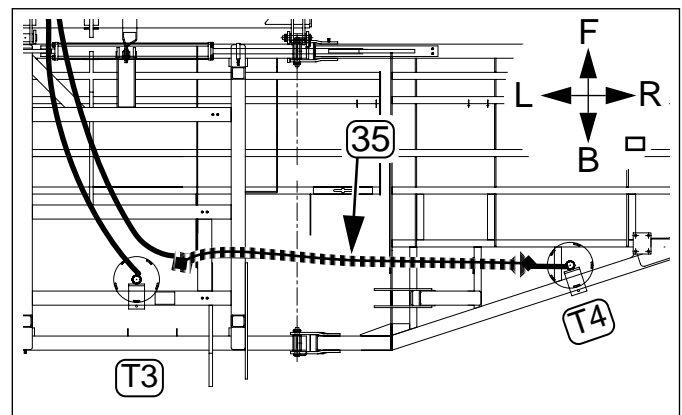


Figure 50: NTA30:
Tower 3 to Tower 4

16899

NTA-3510 Installation

This installation requires one of the following kits:

168-406A NTA3510-5575 (55 row, 7.5in)
168-407A NTA3510-4010 (40 row, 10in)

Additional installation information is found in the DICKY-john IntelliAg Air Cart Control Operator's manual.

Note: The DICKY-john manual has only general harness routing for the Great Plains air drills, and some cable part numbers are slightly different from those in the kits.

Continuing from step 8 on page 3.

Refer to Figure 51 and Figure 52

9. Select five (5):

⑫ 168-465D DIST TOWER MODULE MOUNT PLATE

At each tower, remove the nuts ① and lock washers ② at the lower U-Bolt ③, and mount the plate ⑫.

Plate orientation is small holes to top, and

①, ⑤: plate to drill center,

②, ④: plate to drill center,

③: plate to drill rear.

NTA35: Install WSMBs

Start with the left tower (Tower 1).

10. Select one:

③⑨ 467981100S1 INTAG WSMB/FLW MNTR MODULE 18R
and two sets:

⑭ 802-224C HHCS 1/4-20X1 1/4 GR5

⑮ 804-006C WASHER LOCK SPRING 1/4 PLT

⑮ 803-006C NUT HEX 1/4-20 PLT

Mount the WSMB ③⑨ on the tower side of the plate ⑫, with the mounting ears flush against the plate and the connector ports facing down.

11. Repeat step 10 for the remaining towers

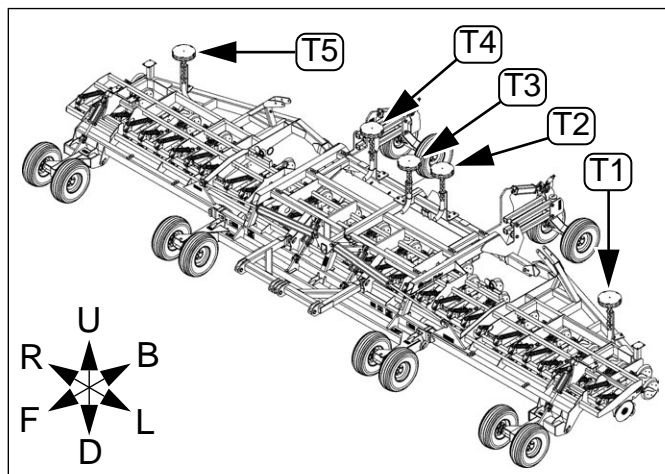


Figure 51
NTA 3510 Tower Arrangement

29020

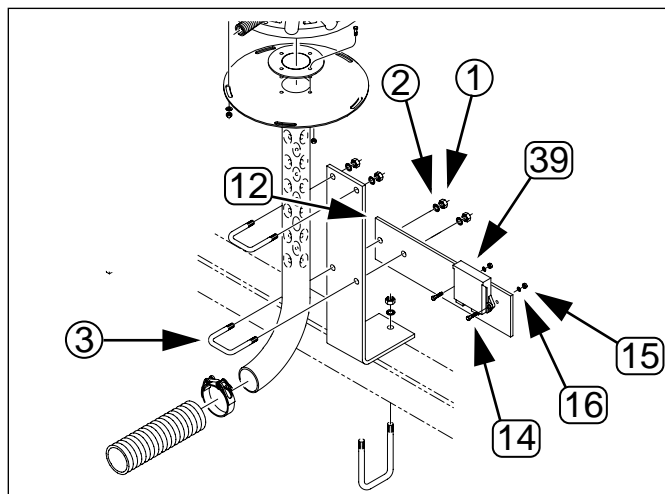


Figure 52: NTA35:
Module Mount

27058

NTA35: Prepare Hoses for Sensors

Refer to Figure 53

DICKEY-john Recon-II blockage sensors **30** require a hole in the hose for the detectors **1**. The sensor has flexible flaps which are tie-wrapped around the seed hose. The long flap **2** goes over the short flap **3**.

Note: Use a hole saw to make the hole. Use a high speed drill (to minimize rough edges), and cut slowly (to minimize risk of drill-through).

Using a drill bit is likely to damage the hose.

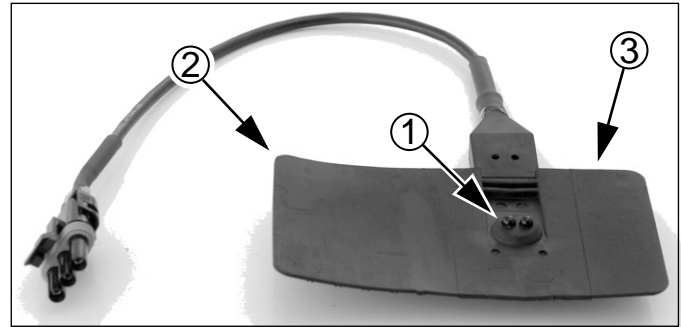


Figure 53: NTA35:
Blockage Sensor **30**

28197

Refer to Figure 54 (showing hole on top)

12. Drill one hole in each secondary seed hose at each tower. Check the first hole for sensor fit before drilling the remaining holes.

The hole location is approximately:

- ④ 13in (33cm)
from where the hose enters the tower.

The hole diameter is:

- ⑤ $1\frac{1}{16}$ to $\frac{3}{4}$ in (17-19mm)

Make the hole on the underside of the hose (toward center of tower), or rotate the hose to hole-under after drilling or installing sensor.

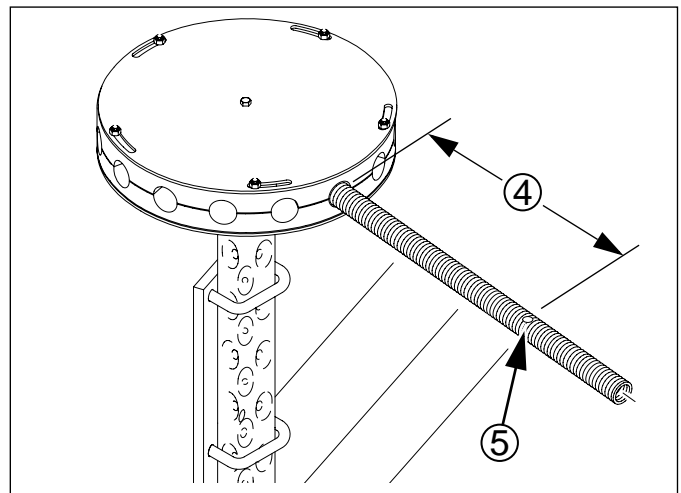


Figure 54: NTA35:
Sensor Hole Location

28194

NTA35: Install Blockage Sensors

Refer to Figure 55 and Figure 53

13. Select one:
 - 30** 467420352S1 RECON II
14. Orient sensor **30** with signal lead toward opener. Insert the detector head **1** in the hose hole. Wrap the short flap **3** around the hose. Wrap the long flap **2** over the short flap.

Check that the long flap overlaps by at least $\frac{1}{4}$ in (6mm), but by no more than 1in (25mm). If the flap is too long, cut off any excess. Re-check overlap.

15. Select two ties from either:
 - 26** 110110050 TY WRAP BUNDLE 50-14"
 - 27** 110110099 TY WRAP BUNDLE 100-14"

Secure the sensor to the hose with ties.

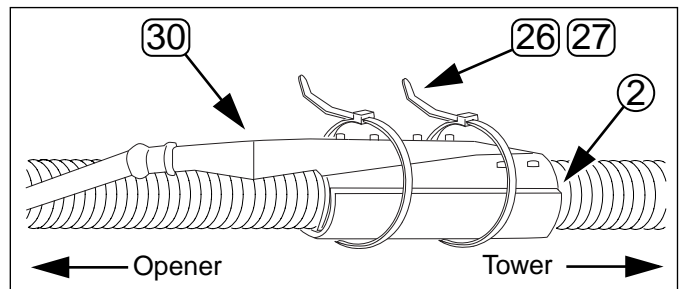


Figure 55: NTA35:
Mount Sensor

28195

NTA35 Mount Row Harnesses

Start with Tower 1 (left wing, left tower).

Refer to Figure 56

16. Select one new:

③① 467751320S1 12 ROW HARNESS

Observe that the assembly has:

- ① one large connector (for the WSMB);
- ② a sealed weather-cap module; and,
- 12 or 16 row sensor connectors, numbered “ROW 1” through “ROW 12”.

Note: There may be more sensor leads than drills rows.

④ “ROW 9” through “ROW 12” are unused on NTA3510-4010

All leads are used on NTA3510-5575.

Note: Connector numbering matches harness-to-row only on Tower 1. At connection step 19, see “**Port Assignment**” table on page 36 or 37.

Refer to Figure 57

17. Select one:

⑬③ 800-082C CABLE TIE .31X21.5 6DIA 120LB

At the tower, position the weather-cap module ②:

- lead bundle down,
- just under the upper U-bolt ③, and;
- on the same side as the WSMB ③⑨.

Secure the module with tie ⑬ around the tower weldment and mounting plate.

18. Repeat step 16 and step 17 for Tower 2 through Tower 5.

NTA35: Sensors to Harnesses

Start with opener 1 (left opener, left wing).

Refer to Figure 58

19. Using the table on pages 38 or 39, determine the Harness lead (“ROW”) to tower Port assignment. Isolate each lead from the bundle, and plug the assigned harness lead and sensor cable together.

20. Select one tie from either:

②⑥ 110110050 TY WRAP BUNDLE 50-14"

②⑦ 110110099 TY WRAP BUNDLE 100-14"

Tie the harness lead to the same seed hose as its assigned sensor. Tie about 1in (2.5cm) behind the cable sheath

21. Repeat step 19 and step 20 for each port on the tower, and then for each tower. One or four leads per tower are not connected. Excess cable is tie-wrapped at step 23.

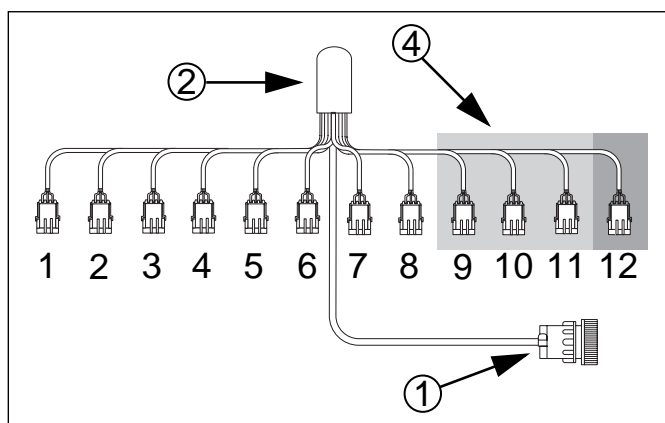


Figure 56: NTA35:
Row Harness ③①

28198

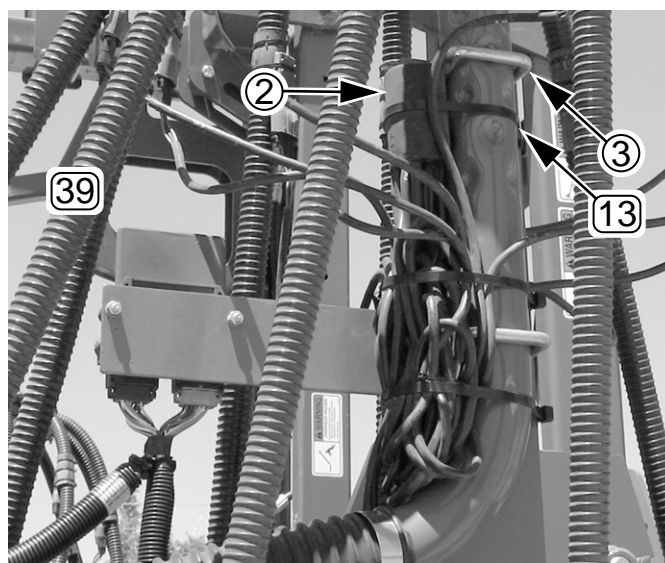


Figure 57: NTA35:
Install Row Harness ③①

28199

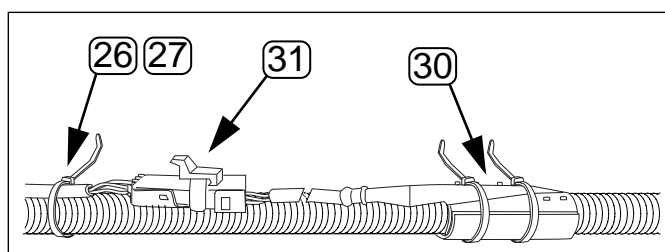


Figure 58: NTA35:
Row Harness to Sensor

28196

NTA35: Install WSMB Harnesses

Start with Tower 1 (left wing, left tower)

Refer to Figure 59

22. Select one:

④ 467981201 INT AG HARNESS, WSMB MODULE

Join the row harness connector ① to the mating connector on the row harness ③①.

Plug the WSMB connectors ② into the WSMB ③⑨. These connectors are not interchangeable, and are keyed to ensure correct insertion.

Refer to Figure 57 on page 25

23. Select two:

⑬ 800-082C CABLE TIE .31X21.5 6DIA 120LB

Coil up excess row harness leads and tie the bundle to the tower, above and below the lower U-bolt.

24. Repeat step 22 and step 23 for each tower.

NTA35: Interconnect Center WSMBs

The center section Towers 2, 3 and 4 are close enough that their WSMB harnesses are directly interconnected.

Refer to Figure 60

25. At the center section WSMB harnesses ④⑩ for Tower 2 and Tower 3, interconnect
- ③ the female (receptacle) of left (outer) CAN bus with
 - ⑤ the male (plug) end of the mid-wing CAN bus.
- Also connect the
- ④ power receptacle and plug

Note: The unconnected Tower 3 CAN bus connector (at drill center) must be a receptacle.

26. Interconnect the WSMB harnesses ④⑩ for Tower 3 and Tower 4.

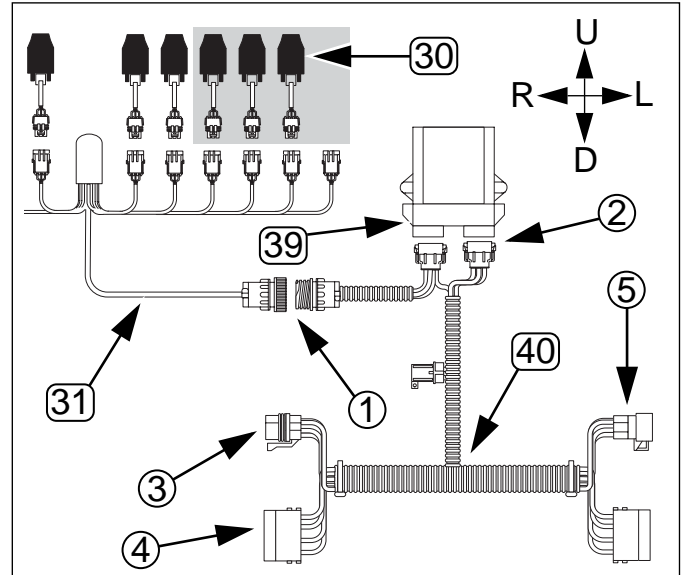


Figure 59: NTA35:
WSMB Harness ④⑩

28200

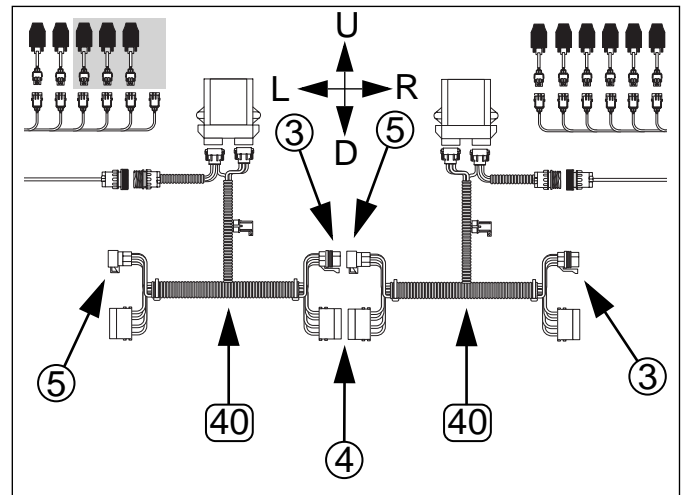


Figure 60: NTA35:
Center Towers Interconnect

28201

Refer to Figure 61, and Figure 62 and 63 on page 27

27. Select one new:

③④ 467980140 DJ 20' HARNESS EXT

28. At the front center of the drill, locate the existing implement WSMB:

⑨⑦ 467982000S1 PLNTR CNTRL OUTPUT MODULE(POM)

At the WSMB connectors, follow harness:

⑨⑧ 467983502 DJ 2SOL YP24LIFT/HITCH FCM HRN

Locate the CAN bus terminator:

⑨① 467980126 MINI CAN TERMINATOR

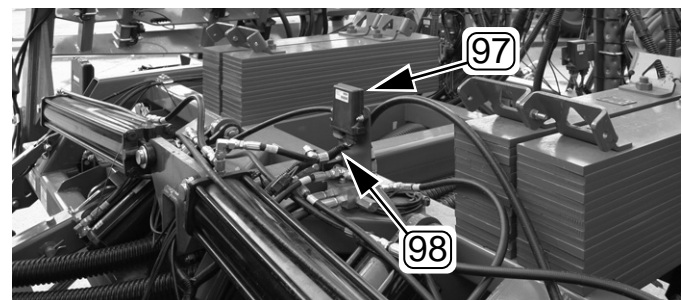


Figure 61: NTA35:
Existing WSMB ⑨⑦ Location

28438

29. Remove and save the terminator (91).
- Connect the 20ft harness extension (34) in its place (two connectors).
- Refer to Figure 62 and Figure 63*
30. At Tower 5, plug the saved CAN bus terminator (91) into the WSMB harness (40).

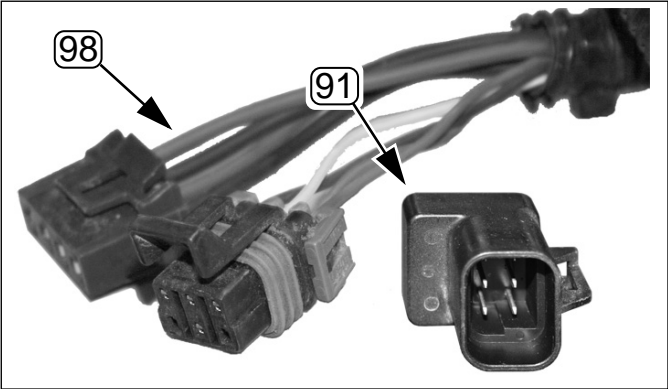


Figure 62: NTA35:
CAN Terminator (98)

NTA35 Blockage Harness Diagram

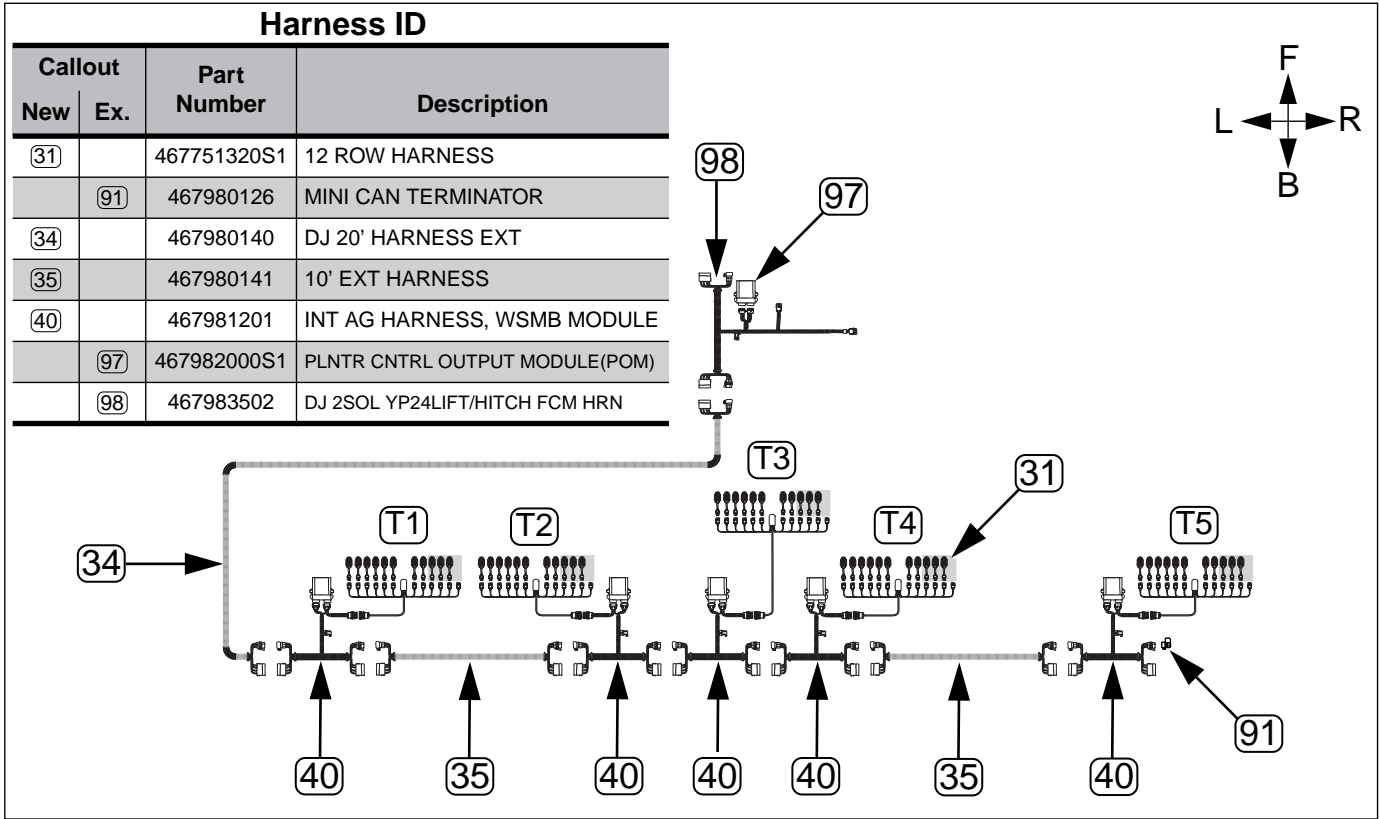


Figure 63
NTA-3510 Harness Block Diagram

Refer to Figure 63 on page 27 and Figure 64

31. Following the large inlet seed tube to Tower 1, route 20ft extension harness (34) to the WSMB at Tower one. Connect it to the WSMB harness (40). Do not secure harness with ties until the next step.

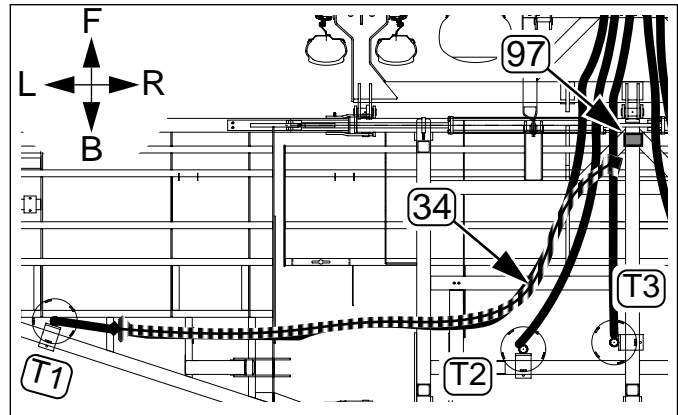


Figure 64: NTA35:
Implement WSMB to Tower 1

16201

Refer to Figure 65 and Figure 63 on page 27

32. Select one new:

(35) 467980141 10' EXT HARNESS

Following the Tower 1 inlet seed tube again, route this extension between the WSMB harness at Tower 1 and the WSMB harness at Tower 2. Connect both ends of the extension.

Allowing slack for wing folding, secure harnesses (34) and (35) with cable ties.

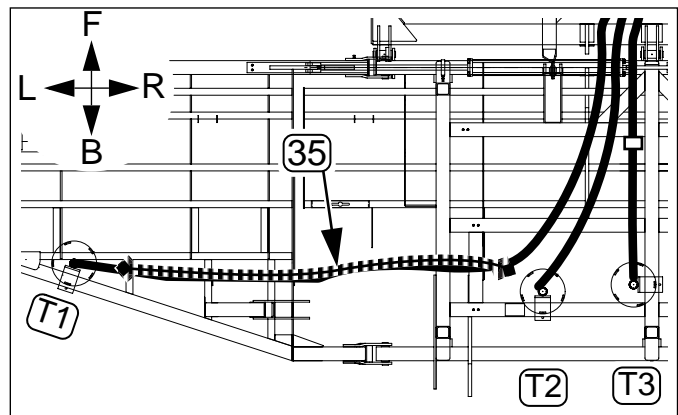


Figure 65: NTA35:
Tower 1 to Tower 2

16201

Refer to Figure 66 and Figure 63 on page 27

33. Select one new:

(35) 467980141 10' EXT HARNESS

Following the inlet seed hose for Tower 5, route this extension between the WSMB harness at Tower 4 and the WSMB harness at Tower 5. Connect both ends of the extension.

Allowing slack for wing folding, secure harness (35) with cable ties.

34. Skip to "Close-Out" on page 29.

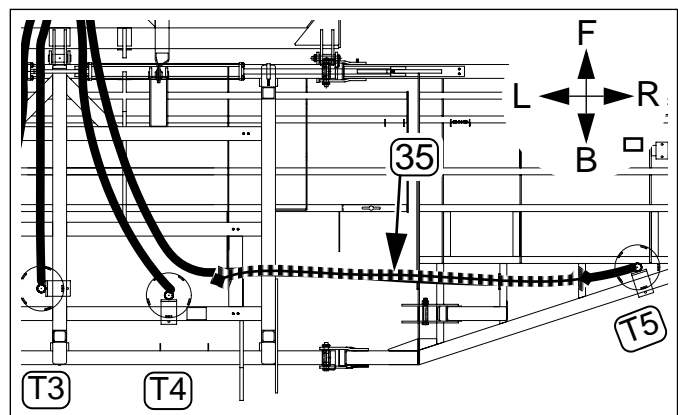


Figure 66: NTA35:
Tower 4 to Tower 5

16201

Close-Out

Refer to Figure 67

37. Select all of:
 (29) 464211090 DUST PLUG

Insert these at all unused row sensor leads on row harnesses.

38. Select all remaining cable ties. Use them to further secure all harnesses.

Check Operation

39. Hitch to suitable tractor.
40. Power-up seed monitor. Consult DICKEY-john Air Cart Control operator manual and run Auto Configuration.
41. Fold, unfold, raise and lower drill while checking that hoses and sensor lines remain clear of moving parts and retain some slack at all times.
42. Fold the drill. Move it to a suitable parking location.

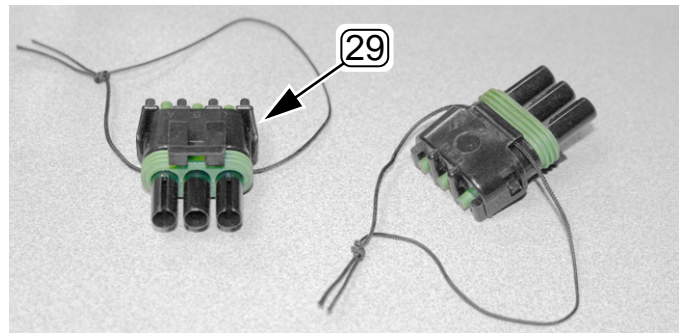








Figure 67
Dust Plugs (29)

28442

Appendix

Torque Chart

Bolt Size	Bolt Head Identification						Bolt Size	Bolt Head Identification					
													
	Grade 2		Grade 5		Grade 8			Class 5.8		Class 8.8		Class 10.9	
in-tpi ¹	N-m ²	ft-lb ³	N-m	ft-lb	N-m	ft-lb	mm x pitch ⁴	N-m	ft-lb	N-m	ft-lb	N-m	ft-lb
¹ / ₄ -20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
¹ / ₄ -28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
⁵ / ₁₆ -18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
⁵ / ₁₆ -24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
³ / ₈ -16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
³ / ₈ -24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
⁷ / ₁₆ -14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
⁷ / ₁₆ -20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
¹ / ₂ -13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
¹ / ₂ -20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
⁹ / ₁₆ -12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
⁹ / ₁₆ -18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
⁵ / ₈ -11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
⁵ / ₈ -18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
³ / ₄ -10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
³ / ₄ -16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
⁷ / ₈ -9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
⁷ / ₈ -14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1-8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1-12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1 ¹ / ₈ -7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1 ¹ / ₈ -12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1 ¹ / ₄ -7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
1 ¹ / ₄ -12	750	555	1680	1240	2730	2010							
1 ³ / ₈ -6	890	655	1990	1470	3230	2380							
1 ³ / ₈ -12	1010	745	2270	1670	3680	2710							
1 ¹ / ₂ -6	1180	870	2640	1950	4290	3160							
1 ¹ / ₂ -12	1330	980	2970	2190	4820	3560							

1. in-tpi = nominal thread diameter in inches-threads per inch

2. N·m = newton-meters

3. ft-lb = foot pounds

4. mm x pitch = nominal thread diameter in millimeters x thread pitch

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

1. in-tpi = nominal thread diameter in inches-threads per inch
2. N·m = newton-meters
3. ft-lb = foot pounds
4. mm x pitch = nominal thread diameter in millimeters x thread pitch

25199

3N4010HDA Port Assignments, 10in (25.4cm) Drill

Drill Model: 3N-4010HDA-4810

Towers are numbered from drill left (Tower 1).

Harness connectors are numbered on the cable: "Row 1" through "Row 12" (some are not connected [n/c]).

Tower Ports are numbered Clockwise from mount center (Port 1) to Port 8.

Openers are numbered from drill left (Row 1).

Tower	Harness	Port	Opener
Tower 1	ROW 3	Port 1	3
	ROW 1	Port 2	1
	ROW 2	Port 3	2
	ROW 4	Port 4	4
	ROW 6	Port 5	6
	ROW 8	Port 6	8
	ROW 7	Port 7	7
	ROW 5	Port 8	5
	ROW 9-12	n/c	-
Tower 2	ROW 3	Port 1	11
	ROW 1	Port 2	9
	ROW 2	Port 3	10
	ROW 4	Port 4	12
	ROW 6	Port 5	14
	ROW 8	Port 6	16
	ROW 7	Port 7	15
	ROW 5	Port 8	13
	ROW 9-12	n/c	-
Tower 3	ROW 7	Port 1	23
	ROW 5	Port 2	21
	ROW 3	Port 3	19
	ROW 1	Port 4	17
	ROW 2	Port 5	18
	ROW 4	Port 6	20
	ROW 6	Port 7	22
	ROW 8	Port 8	24
	ROW 9-12	n/c	

Tower	Harness	Port	Opener
Tower 4	ROW 2	Port 1	26
	ROW 4	Port 2	28
	ROW 6	Port 3	30
	ROW 8	Port 4	32
	ROW 7	Port 5	31
	ROW 5	Port 6	29
	ROW 3	Port 7	27
	ROW 1	Port 8	25
	ROW 9-12	n/c	-
Tower 5	ROW 5	Port 1	37
	ROW 3	Port 2	35
	ROW 1	Port 3	33
	ROW 2	Port 4	34
	ROW 4	Port 5	36
	ROW 6	Port 6	38
	ROW 8	Port 7	40
	ROW 7	Port 8	39
	ROW 9-12	n/c	-
Tower 6	ROW 3	Port 1	43
	ROW 1	Port 2	41
	ROW 2	Port 3	42
	ROW 4	Port 4	44
	ROW 6	Port 5	46
	ROW 8	Port 6	48
	ROW 7	Port 7	47
	ROW 5	Port 8	45
	ROW 9-12	n/c	

3N4010HDA Port Assignments, 7.5in (19.2cm) Drill

Drill Model: 3N-4010HDA-6675

Towers are numbered from drill left (Tower 1).

Harness connectors are numbered on the cable: "ROW 1" through "ROW 12" (some are not connected [n/c]).

Ports are numbered Clockwise from mount center (Port 1) to Port 11.

Openers are numbered from drill left (Row 1).

Tower	Harness	Port	Opener
Tower 1	ROW 6	Port 1	6
	ROW 4	Port 2	4
	ROW 2	Port 3	2
	ROW 1	Port 4	1
	ROW 3	Port 5	3
	ROW 5	Port 6	5
	ROW 7	Port 7	7
	ROW 9	Port 8	9
	ROW 11	Port 9	11
	ROW 10	Port 10	10
	ROW 8	Port 11	8
	ROW 12	n/c	-
Tower 2	ROW 5	Port 1	16
	ROW 3	Port 2	14
	ROW 1	Port 3	12
	ROW 2	Port 4	13
	ROW 4	Port 5	15
	ROW 6	Port 6	17
	ROW 8	Port 7	19
	ROW 10	Port 8	21
	ROW 11	Port 9	22
	ROW 9	Port 10	20
	ROW 7	Port 11	18
	ROW 12	n/c	-
Tower 3	ROW 11	Port 1	33
	ROW 10	Port 2	32
	ROW 8	Port 3	30
	ROW 6	Port 4	28
	ROW 4	Port 5	26
	ROW 2	Port 6	24
	ROW 1	Port 7	23
	ROW 3	Port 8	25
	ROW 5	Port 9	27
	ROW 7	Port 10	29
	ROW 9	Port 11	31
	ROW 12	n/c	-

Tower	Harness	Port	Opener
Tower 4	ROW 2	Port 1	35
	ROW 4	Port 2	37
	ROW 6	Port 3	39
	ROW 8	Port 4	41
	ROW 10	Port 5	43
	ROW 11	Port 6	44
	ROW 9	Port 7	42
	ROW 7	Port 8	40
	ROW 5	Port 9	38
	ROW 3	Port 10	36
	ROW 1	Port 11	34
	ROW 12	n/c	-
Tower 5	ROW 6	Port 1	50
	ROW 4	Port 2	48
	ROW 2	Port 3	46
	ROW 1	Port 4	45
	ROW 3	Port 5	47
	ROW 5	Port 6	49
	ROW 7	Port 7	51
	ROW 9	Port 8	53
	ROW 11	Port 9	55
	ROW 10	Port 10	54
	ROW 8	Port 11	52
	ROW 12	n/c	-
Tower 6	ROW 5	Port 1	60
	ROW 3	Port 2	58
	ROW 1	Port 3	56
	ROW 2	Port 4	57
	ROW 4	Port 5	59
	ROW 6	Port 6	61
	ROW 8	Port 7	63
	ROW 10	Port 8	65
	ROW 11	Port 9	66
	ROW 9	Port 10	64
	ROW 7	Port 11	62
	ROW 12	n/c	-

CTA4000/HD Port Assignments, 10in (25.4cm) Drill

Drill Model: CTA4000-5010, CTA4000HD-5010

Towers are numbered from drill left (Tower 1).

Harness connectors are numbered on the cable: "Row 1" through "Row 12" (some are not connected [n/c]).

Tower Ports are numbered Clockwise from mount center (Port 1) to Port 10.

Openers are numbered from drill left (Row 1).

Tower	Harness	Port	Opener
Tower 1	ROW 7	Port 1	7
	ROW 9	Port 2	9
	ROW 10	Port 3	10
	ROW 8	Port 4	8
	ROW 6	Port 5	6
	ROW 4	Port 6	4
	ROW 2	Port 7	2
	ROW 1	Port 8	1
	ROW 3	Port 9	3
	ROW 5	Port 10	5
	ROW 11-12	n/c	-
Tower 2	ROW 10	Port 1	20
	ROW 8	Port 2	18
	ROW 6	Port 3	16
	ROW 4	Port 4	14
	ROW 2	Port 5	12
	ROW 1	Port 6	11
	ROW 3	Port 7	13
	ROW 5	Port 8	15
	ROW 7	Port 9	17
	ROW 9	Port 10	19
	ROW 11-12	n/c	-
Tower 3	ROW 4	Port 1	24
	ROW 2	Port 2	22
	ROW 1	Port 3	21
	ROW 3	Port 4	23
	ROW 5	Port 5	25
	ROW 7	Port 6	27
	ROW 9	Port 7	29
	ROW 10	Port 8	30
	ROW 8	Port 9	28
	ROW 6	Port 10	26
	ROW 11-12	n/c	-

Tower	Harness	Port	Opener
Tower 4	ROW 1	Port 1	31
	ROW 2	Port 2	32
	ROW 5	Port 3	35
	ROW 7	Port 4	37
	ROW 9	Port 5	39
	ROW 10	Port 6	40
	ROW 8	Port 7	38
	ROW 6	Port 8	36
	ROW 4	Port 9	34
	ROW 2	Port 10	32
	ROW 11-12	n/c	-
Tower 5	ROW 5	Port 1	45
	ROW 7	Port 2	47
	ROW 9	Port 3	49
	ROW 10	Port 4	50
	ROW 8	Port 5	48
	ROW 6	Port 6	46
	ROW 4	Port 7	44
	ROW 2	Port 8	42
	ROW 1	Port 9	41
	ROW 3	Port 10	43
	ROW 11-12	n/c	-

CTA4000/HD Port Assignments, 7.5in (19.2cm) Drill

Drill Model: CTA4000-6575, CTA4000HD-6575

Towers are numbered from drill left (Tower 1).

Harness connectors are numbered on the cable: "ROW 1" through "ROW 16" (some are not connected [n/c]).

Ports are numbered Clockwise from mount center (Port 1) to Port 13.

Openers are numbered from drill left (Row 1).

Tower	Harness	Port	Opener
Tower 1	ROW 8	Port 1	8
	ROW 10	Port 2	10
	ROW 13	Port 3	13
	ROW 12	Port 4	12
	ROW 11	Port 5	11
	ROW 9	Port 6	9
	ROW 7	Port 7	7
	ROW 6	Port 8	6
	ROW 5	Port 9	5
	ROW 2	Port 10	2
	ROW 1	Port 11	1
	ROW 3	Port 12	3
	ROW 4	Port 13	4
Tower 2	ROW 14-16	n/c	-
	ROW 13	Port 1	26
	ROW 11	Port 2	24
	ROW 9	Port 3	22
	ROW 7	Port 4	20
	ROW 5	Port 5	18
	ROW 3	Port 6	16
	ROW 1	Port 7	14
	ROW 2	Port 8	15
	ROW 4	Port 9	17
	ROW 6	Port 10	19
	ROW 8	Port 11	21
	ROW 10	Port 12	23
	ROW 12	Port 13	25
	ROW 14-16	n/c	-
Tower 3	ROW 8	Port 1	34
	ROW 6	Port 2	32
	ROW 4	Port 3	30
	ROW 2	Port 4	28
	ROW 1	Port 5	27
	ROW 3	Port 6	29
	ROW 5	Port 7	31
	ROW 7	Port 8	33
	ROW 9	Port 9	35
	ROW 11	Port 10	37
	ROW 13	Port 11	39
	ROW 12	Port 12	38
	ROW 10	Port 13	36
	ROW 14-16	n/c	-

Tower	Harness	Port	Opener
Tower 4	ROW 2	Port 1	41
	ROW 4	Port 2	43
	ROW 6	Port 3	45
	ROW 8	Port 4	47
	ROW 10	Port 5	49
	ROW 12	Port 6	51
	ROW 13	Port 7	52
	ROW 11	Port 8	50
	ROW 9	Port 9	48
	ROW 7	Port 10	46
	ROW 5	Port 11	44
	ROW 3	Port 12	42
	ROW 1	Port 13	40
Tower 5	ROW 14-16	n/c	-
	ROW 5	Port 1	57
	ROW 7	Port 2	59
	ROW 9	Port 3	61
	ROW 11	Port 4	63
	ROW 13	Port 5	65
	ROW 12	Port 6	64
	ROW 10	Port 7	62
	ROW 8	Port 8	60
	ROW 6	Port 9	58
	ROW 4	Port 10	56
	ROW 2	Port 11	54
	ROW 1	Port 12	53
	ROW 3	Port 13	55
	ROW 14-16	n/c	-

CTA4000/HD Port Assignments, 6in (15.2cm) Drill

Drill Model: CTA4000-8006, CTA4000HD-8006

Towers are numbered from drill left (Tower 1).

Harness connectors are numbered on the cable: "ROW 1" through "ROW 16"

Ports are numbered Clockwise from mount center (Port 1) to Port 11.

Openers are numbered from drill left (Row 1).

Tower	Harness	Port	Opener
Tower 1	ROW 13	Port 1	13
	ROW 14	Port 2	14
	ROW 15	Port 3	15
	ROW 16	Port 4	16
	ROW 12	Port 5	12
	ROW 10	Port 6	10
	ROW 8	Port 7	8
	ROW 6	Port 8	6
	ROW 4	Port 9	4
	ROW 2	Port 10	2
	ROW 1	Port 11	1
	ROW 3	Port 12	3
	ROW 5	Port 13	5
	ROW 7	Port 14	7
	ROW 9	Port 15	9
	ROW 11	Port 16	11
Tower 2	ROW 14	Port 1	30
	ROW 12	Port 2	28
	ROW 10	Port 3	26
	ROW 16	Port 4	32
	ROW 6	Port 5	22
	ROW 4	Port 6	20
	ROW 2	Port 7	18
	ROW 1	Port 8	17
	ROW 3	Port 9	19
	ROW 5	Port 10	21
	ROW 7	Port 11	23
	ROW 8	Port 12	24
	ROW 9	Port 13	25
	ROW 11	Port 14	27
	ROW 13	Port 15	29
	ROW 15	Port 16	31
Tower 3	ROW 7	Port 1	39
	ROW 6	Port 2	38
	ROW 3	Port 3	35
	ROW 4	Port 4	36
	ROW 5	Port 5	37
	ROW 1	Port 6	33
	ROW 2	Port 7	34
	ROW 8	Port 8	40
	ROW 9	Port 9	41
	ROW 10	Port 10	42
	ROW 11	Port 11	43
	ROW 14	Port 12	46
	ROW 16	Port 13	48
	ROW 15	Port 14	47
	ROW 13	Port 15	45
	ROW 12	Port 16	44

Tower	Harness	Port	Opener
Tower 4	ROW 2	Port 1	50
	ROW 5	Port 2	53
	ROW 6	Port 3	54
	ROW 7	Port 4	55
	ROW 11	Port 5	59
	ROW 12	Port 6	60
	ROW 13	Port 7	61
	ROW 15	Port 8	63
	ROW 16	Port 9	64
	ROW 14	Port 10	62
	ROW 10	Port 11	58
	ROW 9	Port 12	57
	ROW 8	Port 13	56
	ROW 4	Port 14	52
	ROW 3	Port 15	51
	ROW 1	Port 16	49
Tower 5	ROW 5	Port 1	69
	ROW 7	Port 2	71
	ROW 11	Port 3	75
	ROW 13	Port 4	77
	ROW 15	Port 5	79
	ROW 16	Port 6	80
	ROW 14	Port 7	78
	ROW 12	Port 8	76
	ROW 10	Port 9	74
	ROW 9	Port 10	73
	ROW 8	Port 11	72
	ROW 6	Port 12	70
	ROW 4	Port 13	68
	ROW 2	Port 14	66
	ROW 1	Port 15	65
	ROW 3	Port 16	67

NTA-3010 Port Assignments, 10in (25.4cm) Drill

Drill Model: NTA3010-3610

Towers are numbered from drill left (Tower 1).

Harness connectors are numbered on the cable: "Row 1" through "Row 12" (some are not connected [n/c]).

Tower Ports are numbered Clockwise from mount center (Port 1) to Port 9.

Openers are numbered from drill left (Row 1).

Tower	Harness	Port	Opener
Tower 1	ROW 5	Port 1	5
	ROW 3	Port 2	3
	ROW 1	Port 3	1
	ROW 2	Port 4	2
	ROW 4	Port 5	4
	ROW 6	Port 6	6
	ROW 8	Port 7	8
	ROW 9	Port 8	9
	ROW 7	Port 9	7
	ROW 10-12	n/c	-
Tower 2	ROW 5	Port 1	14
	ROW 4	Port 2	13
	ROW 2	Port 3	11
	ROW 1	Port 4	10
	ROW 3	Port 5	12
	ROW 6	Port 6	15
	ROW 7	Port 7	16
	ROW 9	Port 8	18
	ROW 8	Port 9	17
	ROW 10-12	n/c	-

Tower	Harness	Port	Opener
Tower 3	ROW 5	Port 1	23
	ROW 3	Port 2	21
	ROW 1	Port 3	19
	ROW 2	Port 4	20
	ROW 4	Port 5	22
	ROW 6	Port 6	24
	ROW 7	Port 7	25
	ROW 9	Port 8	27
	ROW 8	Port 9	26
	ROW 10-12	n/c	-
Tower 4	ROW 6	Port 1	33
	ROW 4	Port 2	31
	ROW 2	Port 3	29
	ROW 1	Port 4	28
	ROW 3	Port 5	30
	ROW 5	Port 6	32
	ROW 7	Port 7	34
	ROW 9	Port 8	36
	ROW 8	Port 9	35
	ROW 10-12	n/c	-

NTA-3010 Port Assignments, 7.5in (19.2cm) Drill

Drill Model: NTA3010-4875

Towers are numbered from drill left (Tower 1).

Harness connectors are numbered on the cable: "Row 1" through "Row 12".

Tower Ports are numbered Clockwise from mount center (Port 1) to Port 12.

Openers are numbered from drill left (Row 1).

Tower	Harness	Port	Opener
Tower 1	ROW 5	Port 1	5
	ROW 4	Port 2	4
	ROW 3	Port 3	3
	ROW 1	Port 4	1
	ROW 2	Port 5	2
	ROW 6	Port 6	6
	ROW 8	Port 7	8
	ROW 10	Port 8	10
	ROW 12	Port 9	12
	ROW 11	Port 10	11
	ROW 9	Port 11	9
	ROW 7	Port 12	7
Tower 2	ROW 5	Port 1	17
	ROW 2	Port 2	15
	ROW 1	Port 3	13
	ROW 2	Port 4	14
	ROW 4	Port 5	16
	ROW 6	Port 6	18
	ROW 8	Port 7	20
	ROW 10	Port 8	22
	ROW 12	Port 9	24
	ROW 11	Port 10	23
	ROW 9	Port 11	21
	ROW 7	Port 12	19

Tower	Harness	Port	Opener
Tower 3	ROW 9	Port 1	33
	ROW 5	Port 2	29
	ROW 3	Port 3	27
	ROW 1	Port 4	25
	ROW 2	Port 5	26
	ROW 4	Port 6	28
	ROW 6	Port 7	30
	ROW 7	Port 8	31
	ROW 8	Port 9	32
	ROW 10	Port 10	34
	ROW 12	Port 11	36
	ROW 11	Port 12	35
Tower 4	ROW 4	Port 1	40
	ROW 7	Port 2	43
	ROW 5	Port 3	41
	ROW 2	Port 4	38
	ROW 1	Port 5	37
	ROW 3	Port 6	39
	ROW 6	Port 7	42
	ROW 8	Port 8	44
	ROW 9	Port 9	45
	ROW 10	Port 10	46
	ROW 12	Port 11	48
	ROW 11	Port 12	47

NTA-3510 Port Assignments, 10in (25.4cm) Drill

Drill Model: NTA3510-4010

Towers are numbered from drill left (Tower 1).

Harness connectors are numbered on the cable: "Row 1" through "Row 12" (some are not connected [n/c]).

Tower Ports are numbered Clockwise from mount center (Port 1) to Port 8.

Openers are numbered from drill left (Row 1).

Tower	Harness	Port	Opener
Tower 1	ROW 8	Port 1	8
	ROW 3	Port 2	3
	ROW 1	Port 3	1
	ROW 2	Port 4	2
	ROW 4	Port 5	4
	ROW 5	Port 6	5
	ROW 6	Port 7	6
	ROW 7	Port 8	7
	ROW 9-12	n/c	-
Tower 2	ROW 7	Port 1	15
	ROW 6	Port 2	14
	ROW 1	Port 3	9
	ROW 2	Port 4	10
	ROW 3	Port 5	11
	ROW 4	Port 6	12
	ROW 5	Port 7	13
	ROW 8	Port 8	16
	ROW 9-12	n/c	-
Tower 3	ROW 7	Port 1	23
	ROW 8	Port 2	24
	ROW 5	Port 3	21
	ROW 3	Port 4	19
	ROW 1	Port 5	17
	ROW 2	Port 6	18
	ROW 4	Port 7	20
	ROW 6	Port 8	22
	ROW 9-12	n/c	-

Tower	Harness	Port	Opener
Tower 4	ROW 2	Port 1	26
	ROW 1	Port 2	25
	ROW 4	Port 3	28
	ROW 5	Port 4	29
	ROW 6	Port 5	30
	ROW 7	Port 6	31
	ROW 8	Port 7	32
	ROW 3	Port 8	27
	ROW 9-12	n/c	-
Tower 5	ROW 6	Port 1	38
	ROW 1	Port 2	33
	ROW 2	Port 3	34
	ROW 3	Port 4	35
	ROW 4	Port 5	36
	ROW 5	Port 6	37
	ROW 7	Port 7	39
	ROW 8	Port 8	40
	ROW 9-12	n/c	-

NTA-3510 Port Assignments, 7.5in (25.4cm) Drill

Drill Model: NTA3510-5575

Towers are numbered from drill left (Tower 1).

Harness connectors are numbered on the cable: "Row 1" through "Row 12". Lead "ROW 12" is unused (n/c).

Tower Ports are numbered Clockwise from mount center (Port 1) to Port 11.

Openers are numbered from drill left (Row 1).

Tower	Harness	Port	Opener
Tower 1	ROW 10	Port 1	10
	ROW 4	Port 2	4
	ROW 2	Port 3	2
	ROW 1	Port 4	1
	ROW 3	Port 5	3
	ROW 5	Port 6	5
	ROW 6	Port 7	6
	ROW 7	Port 8	7
	ROW 8	Port 9	8
	ROW 9	Port 10	9
	ROW 11	Port 11	11
	ROW 12	n/c	-
Tower 2	ROW 7	Port 1	18
	ROW 6	Port 2	17
	ROW 5	Port 3	16
	ROW 3	Port 4	14
	ROW 1	Port 5	12
	ROW 2	Port 6	13
	ROW 4	Port 7	15
	ROW 8	Port 8	19
	ROW 10	Port 9	21
	ROW 11	Port 10	22
	ROW 9	Port 11	20
	ROW 12	n/c	-
Tower 3	ROW 10	Port 1	32
	ROW 8	Port 2	30
	ROW 6	Port 3	28
	ROW 2	Port 4	24
	ROW 1	Port 5	23
	ROW 3	Port 6	25
	ROW 4	Port 7	26
	ROW 5	Port 8	27
	ROW 7	Port 9	29
	ROW 9	Port 10	31
	ROW 11	Port 11	33
	ROW 12	n/c	-

Tower	Harness	Port	Opener
Tower 4	ROW 5	Port 1	38
	ROW 4	Port 2	37
	ROW 3	Port 3	36
	ROW 2	Port 4	35
	ROW 1	Port 5	34
	ROW 7	Port 6	40
	ROW 10	Port 7	43
	ROW 9	Port 8	42
	ROW 11	Port 9	44
	ROW 8	Port 10	41
	ROW 6	Port 11	39
	ROW 12	n/c	-
Tower 5	ROW 6	Port 1	50
	ROW 4	Port 2	48
	ROW 2	Port 3	46
	ROW 1	Port 4	45
	ROW 3	Port 5	47
	ROW 5	Port 6	49
	ROW 7	Port 7	51
	ROW 9	Port 8	53
	ROW 11	Port 9	55
	ROW 10	Port 10	54
	ROW 8	Port 11	52
	ROW 12	n/c	-

New Parts

Quantities are units ("ea").

Not all parts are in all kits.

Callout	Quantity in Kit 168-									Part Number	Part Description
	-404A	-405A	-406A	-407A	-408A	-409A	-410A	-411A	-412A		
(11)	1	1	1	1	1	1	1	1	1	168-414M	MANUAL IA BLOCK MONITOR INSTAL
(12)	5	5	5	5	5	5	5	6	6	168-465D	DIST TOWER MODULE MOUNT PLATE
(13)	30	30	30	30	30	30	30	30	30	800-082C	CABLE TIE .31X21.5 6DIA 120LB
(14)	10	10	10	10	10	10	10	12	12	802-224C	HHCS 1/4-20X1 1/4 GR5
(15)	10	10	10	10	10	10	10	12	12	803-006C	NUT HEX 1/4-20 PLT
(16)	10	10	10	10	10	10	10	12	12	804-006C	WASHER LOCK SPRING 1/4 PLT
(17)	0	0	0	0	1	0	0	0	0	823-275C	INTELLIAG CTA 80 ROW BLOCKAGE
(18)	0	0	0	0	0	1	0	0	0	823-276C	INTELLIAG CTA 65 ROW BLOCKAGE
(19)	0	0	0	0	0	0	1	0	0	823-277C	INTELLIAG CTA 50 ROW BLOCKAGE
(20)	0	0	1	0	0	0	0	0	0	823-278C	INTELLIAG NTA35 55 ROW BLOCKAG
(21)	0	0	0	1	0	0	0	0	0	823-279C	INTELLIAG NTA35 40 ROW BLOCKAG
(22)	1	0	0	0	0	0	0	0	0	823-280C	INTELLIAG NTA30 48 ROW BLOCKAG
(23)	0	1	0	0	0	0	0	0	0	823-281C	INTELLIAG NTA30 36 ROW BLOCKAG
(24)	0	0	0	0	0	0	0	1	0	823-282C	INTELLIAG 3N40HD 66 ROW BLOCKG
(25)	0	0	0	0	0	0	0	0	1	823-283C	INTELLIAG 3N40HD 48 ROW BLOCKG
	Quantity in Intelli-Ag Bundle 823-										
Callout	-280C	-281C	-278C	-279C	-275C	-276C	-277C	-282C	-283C	DICKEY-john Part Number	Part Description
(26)	3	0	1	3	1	0	3	0	3	110110050	TY WRAP BUNDLE 50-14"
(27)	0	1	1	0	2	2	0	2	0	110110099	TY WRAP BUNDLE 100-14"
(28)	1	1	1	1	1	1	1	1	1	110112820	TY WRAP BUNDLE 28-7" & 20-14"
(29)	0	12	5	20	0	15	10	6	24	464211090	DUST PLUG
(30)	48	36	55	40	80	65	50	66	48	467420352s1	RECON II
(31)	4	4	5	5	0	0	5	6	6	467751320s1	12 ROW HARNESS
(32)	0	0	0	0	5	5	0	0	0	467751330s1	16 ROW HARNESS
(33)	0	0	0	0	1	1	1	0	0	467980131	20' HITCH HARNESS
(34)	1	1	1	1	0	0	0	1	1	467980140	DJ 20' HARNESS EXT
(35)	2	2	2	2	3	3	3	1	1	467980141	10' EXT HARNESS
(36)	1	1	0	0	2	2	2	0	0	467980142	5' EXT HARNESS
(37)	0	0	0	0	0	0	0	1	1	467980143	INT AG 25' HARNESS, WSMB EXT
(38)	0	0	0	0	1	1	1	0	0	467980360	3' REAR HITCH HARNESS
(39)	4	4	5	5	5	5	5	6	6	467981100s1	INTAG WSMB/FLW MNTR MODULE 18R
(40)	4	4	5	5	5	5	5	6	6	467981201	INT AG HARNESS, WSMB MODULE

Existing Parts Affected

The following existing parts are involved in the kit installation.

The Disposition column indicates whether the part is left in place, moved or not re-used.

Callout	Part No.	Part Description	Part Disposition
⑨1	467980126	MINI CAN TERMINATOR	Moved to right-most Tower WSMB harness.
⑨2	467980130	40' HITCH HARNESS	Rear end repositioned
⑨3	467980141	10' EXT HARNESS	Entirely repositioned
⑨4	467980360	3' REAR HITCH HARNESS	Disconnected and reconnected
⑨5	467980817S1	WSMTII GP AIR CART MODULE	Landmark for locating harness ⑨6
⑨6	467980856	GP WSMTII AIR CART HARNESS	Extended to cart bulkhead (CTA & NTA only)
⑨7	467982000S1	PLNTR CNTRL OUTPUT MODULE(POM)	Landmark for locating harness ⑨8 (NTA)
⑨8	467983502	DJ 2SOL YP24LIFT/HITCH FCM HRN	Extended to Tower WSMBs (NTA)

Abbreviations

3N	Three Section No-Till
ACC	Air Cart Controller
ADC	Air Drill Cart
BLOCK	Blockage
BLOCKAG	Blockage
BLOCKG	Blockage
CAN	Controller Area Network
CNTRL	Control
CTA	Conventional Tillage Air drill
DIA	Diameter
DJ	DICKEY-john
EXT	Extension
FCM	Frame Control Module
FLW	Flow
GP	Great Plains

GR5	Grade 5
HDA	Heavy Duty Air drill
HEX	Hexagonal
HHCS	Hex Head Cap Screw (Bolt)
HRN	Harness
IA	Intelli-ag
INT AG	Intelli-ag
NTA	No-Till Air
PLT	Plated
POM	Planter Output Module
SOL	Solenoid
WSMB	Working Set MemBer module
WSMT	Working Set MasTer module
X	by
YP	Yield-Pro

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