

<i>NOTE: Indented items indicate parts included in an assembly listed above</i>		
Part Name/Description	Part Number	Quantity
Tile Plow Kit – Soil Max System	4100470	1
Hex head cap screw - M10 x 75mm	2002007-10075	2
Cable install kit	2000901-1	1
Flat washer - M10	2002070-10	4
Flat washer - M8	2002070-08	2
Hex nylock nut – 10mm	2002155-10	2
Hex nylock nut – 8mm	2002155-08	2
Cable - CAN/power with implement connection (3 FT)	4001979-3	1
Module - water management control	4003100	1
Intellislope - tiling unlock	4003323	1
Soil-Max Gen2 module mounting plate	4003329	1
Harness - Soilmax pitch control	4003415	1
Cable - wmc module gps breakout	4003459-1	1
Display kit – Ag Leader*		1
Display cable kit - Ethernet, 22ft. power cable *	4101323	1
Optional Items (Available From Dealer)		
Extension cable (6ft.)**	4000724-6	1
Extension cable (12ft.)**	4000724-12	1
Cable adapter – DIN valve to WP 2 PIN***	4003477	2
* These items are not included in the Tile Plow Kit (4100470) but they are required.		
* * One or the other required if supplied cable is too short.		
*** DIN connector required if older style proportional valves are present.		




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**Important
Notices**

Please carefully follow these step-by-step instructions. If you have questions, contact *Ag Leader Technology* at 515-232-5363 x 1.

Direction words (LEFT and RIGHT) are commonly used when describing an installation procedure. Interpret direction words as if standing behind equipment facing forward.

Signal words (**DANGER**, **WARNING**, **CAUTION** and *NOTE*) are provided to draw attention to information that is important for the safe/correct installation and operation of this product.

-  **DANGER** – Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death.
-  **WARNING** – Indicates a potentially hazardous situation that, if not avoided, could result in serious injury or death.
-  **CAUTION** – Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.
- **CAUTION** – Indicates practices that may result in property damage, but do not involve personal injury.
- **NOTE** – The preferred signal word to address practices not involving property damage, or personal injury.

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**Preliminary
Installation
Requirements**



- **Implement must be securely attached to the tractor on a stable and level surface and lowered to the ground before beginning installation. Do not rely on hydraulic system, support stands, or tongue jack alone to support implement. Hydraulics can fail – resulting in serious injury or death.**
- **Read these instructions completely before beginning installation.**

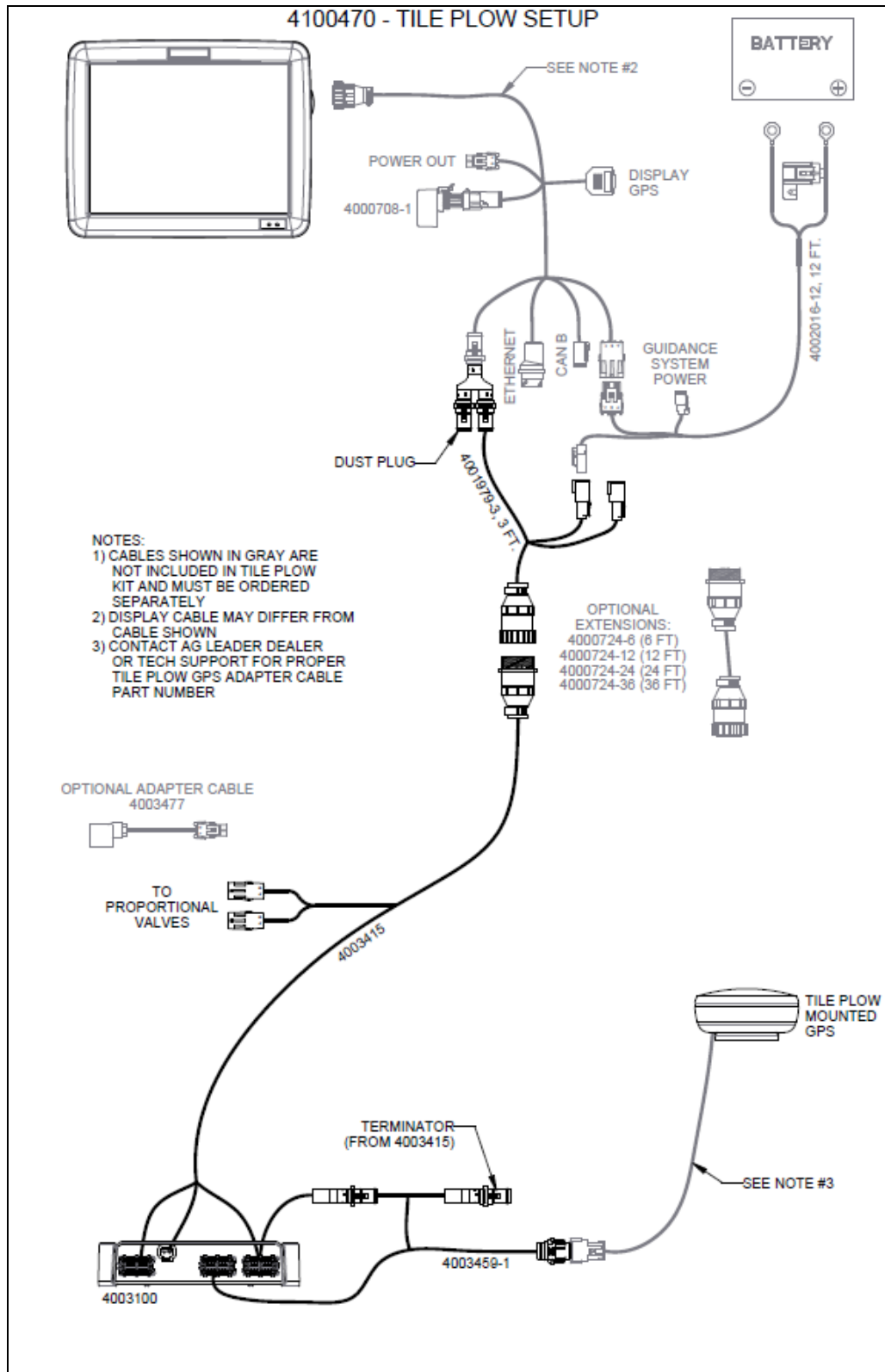


Figure 1. Line Art Drawing

NOTE – If your display and cabling is already present and a CAN/Power cable with an implement connection is present at the hitch of the tractor then proceed to page 11.

Installing Ag Leader Display	Required Parts:	Part Number:	Quantity:
	Ag Leader Display (indented items included)	*	1
	Hardware Kit	*	1
	RAM mount display base	*	1
	RAM mount arm	4000279	1
	RAM mount rectangular base	4000187	1
	USB Flash drive 4GB		1
	*Multiple options are available		

1. Install display using the following criteria:
 - a. Display must be installed in a location that is convenient for viewing and within arms reach.
 - b. Location of display must create minimal interference with windows, mirrors controls, and gauges.
2. Install display mounting base (**A**) to back side of display as shown in Figure 2. using provided pan head screws with split lock washers from hardware kit.
3. Install rectangular base (**C**) to suitable location in the tractor cab using self-tapping screws or other suitable hardware.
4. Install mounting arm (**B**) between base (**A**) and base (**C**) and insure that it is securely attached to each pivot ball. Release tensioning screw to allow the sockets to slip onto the pivot balls. Hold the display in the desired position and tighten tensioning screw until the display is securely locked in its desired position.

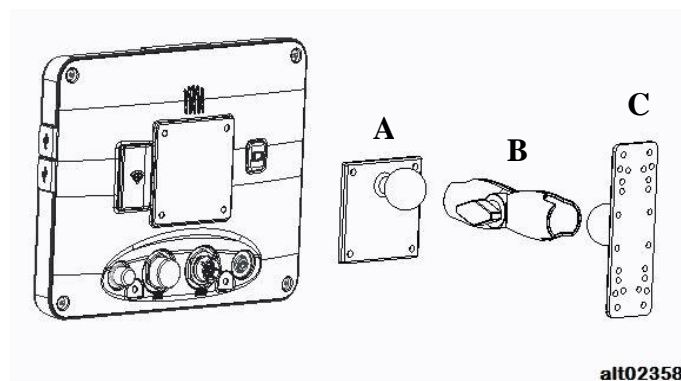


Figure 2. Display bracket installation

Display Cable and Power Cable Installation	Required Parts:	Part Number:	Quantity:
	Cable Installation Kit (indented items in kit)	2000901-1	1
	Alcohol swab pack	2002811	2
	Grey cable clamps	2002812	6
	Black cable tie (15in.)	2002817-15	20
	Black cable tie (6in.)	2002817-6	50
	Adhesive mounting base – 2way	2002821-2	6
	Rubber grommet 3/4in. ID x 1-7/16in.	2002825-75	1
	Display Cable Kit – Ethernet, 22ft. power cable	4101323	1
	Power cable (22ft.)	4002016-22	1
	Display cable (12ft.)	4004671-12	1
	Cable - CAN/power with implement connection (3ft.)	4001979-3	1

NOTE – Refer to Figure 1. for wiring and cable connections.

1. Attach display cable (P/N: 4004671-12) to the **MAIN** connector on the back of display as shown in Figure 3.



Figure 3. Display cable connection

2. Route the cable towards the rear of the tractor cab, and then use the power cable (P/N: 4002016-22) to connect to 12V battery power at power terminals in the cab or at the battery. Insure that the power cable terminals are connected to the appropriate battery connections as shown in Figure 4. Route the cable in a safe and secure location using the provided zip ties.

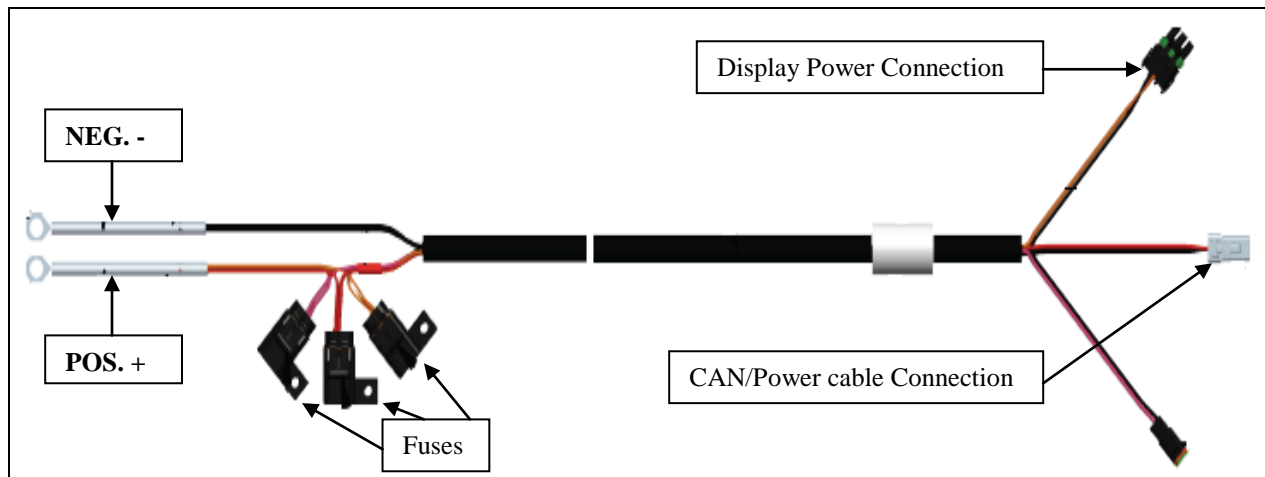


Figure 4. 22ft. power cable

3. The power cable needs to be able to connect to the display cable at the flat 3 pin connector shown in Figure 5. It also needs to be able to connect with the CAN/power cable (P/N: 4001979-3) at the primary (grey) connector shown in Figure 4.

CAUTION – Do not connect 12V power connectors at this time!

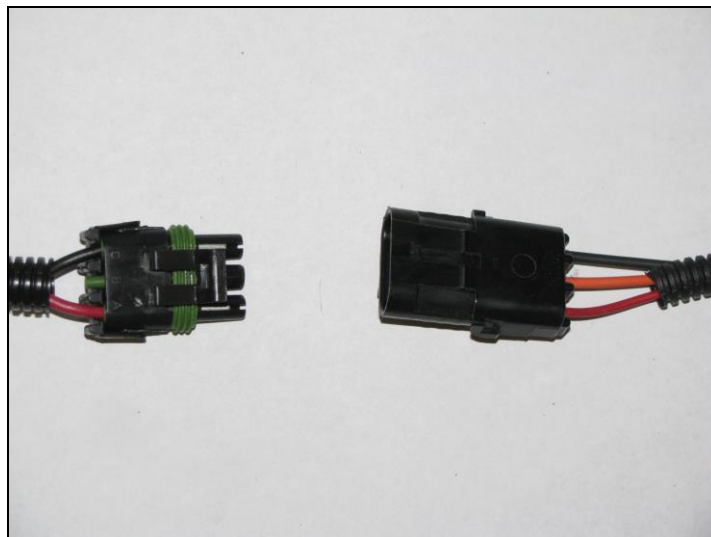


Figure 5. Power cable to display cable

4. Connect the CAN/power cable (P/N: 4001979-3) to the display cable (P/N: 4004671-12) with round 4 pin connector as shown in Figures 6. and 7. Route the CAN/ power cable (P/N: 4001979-3) out to the hitch area of the tile plow. Insure that the cable is routed in a manner that it will not be chafed or pinched during machine operation.

NOTE – This cable should be long enough to reach the plow harness for most front wheel assist tractors. If you have a 4-wheel drive tractor or additional length is needed, extension cables are available from your dealer in 6ft. (P/N: 4000724-6) and 12ft. (P/N: 4000724-12) lengths.

5. Use the supplied zip ties to secure the cable in a safe location.

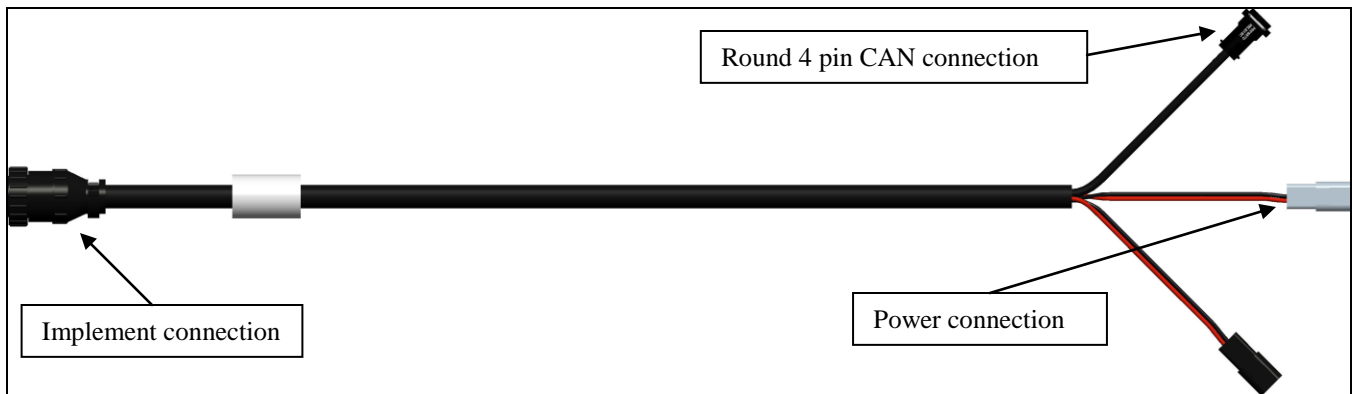


Figure 6. CAN/Power cable (P/N: 4001979-3)

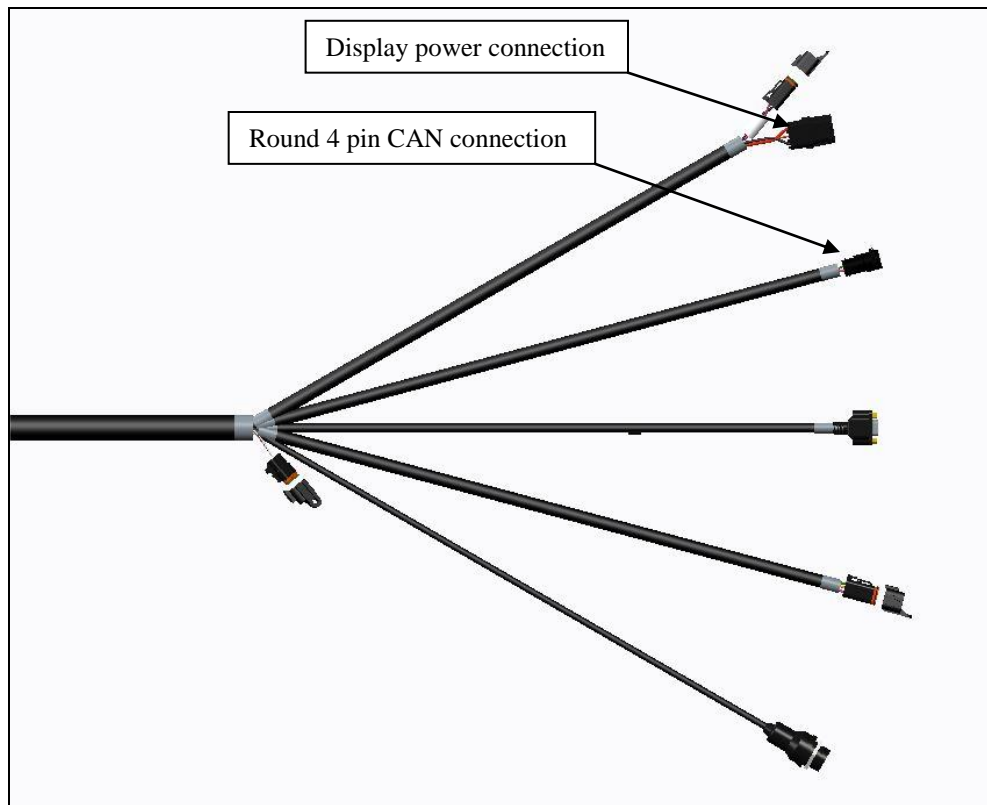


Figure 7. Display cable connections (P/N: 4004671-12)

Installing Plow Harness	Required Parts:	Part Number:	Quantity:
	Harness - Soilmax pitch control	4003415	1
	*Cable adapter – DIN valve to WP 2 PIN (This part only required with old style proportioning valve)	4003477	2

1. Start with the single round connector at the hitch of the tile plow as shown in Figure 8. Connect this to the single round connector of the CAN/power cable coming out of the tractor.

CAUTION – Insure that the cable is routed in a manner that it will not be damaged during turning and operation.



Tractor connection

Plow connection

Figure 8. CAN/Power connections

2. Route the plow harness (P/N: 4003415) along the frame as shown in Figure 9. to prevent harness damage. Use the zip ties to secure the cables along the frame.
3. Connect the black two pin connectors to the correct proportional valve as shown in Figure 10. (follow labels on cable)

NOTE – An adapter cable (P/N: 4003477) may be required if older style proportional valves are present. Cable is shown in Figure 11.

4. Continue to route and secure the cable as shown in Figure 9. until Water Management module location is reached.

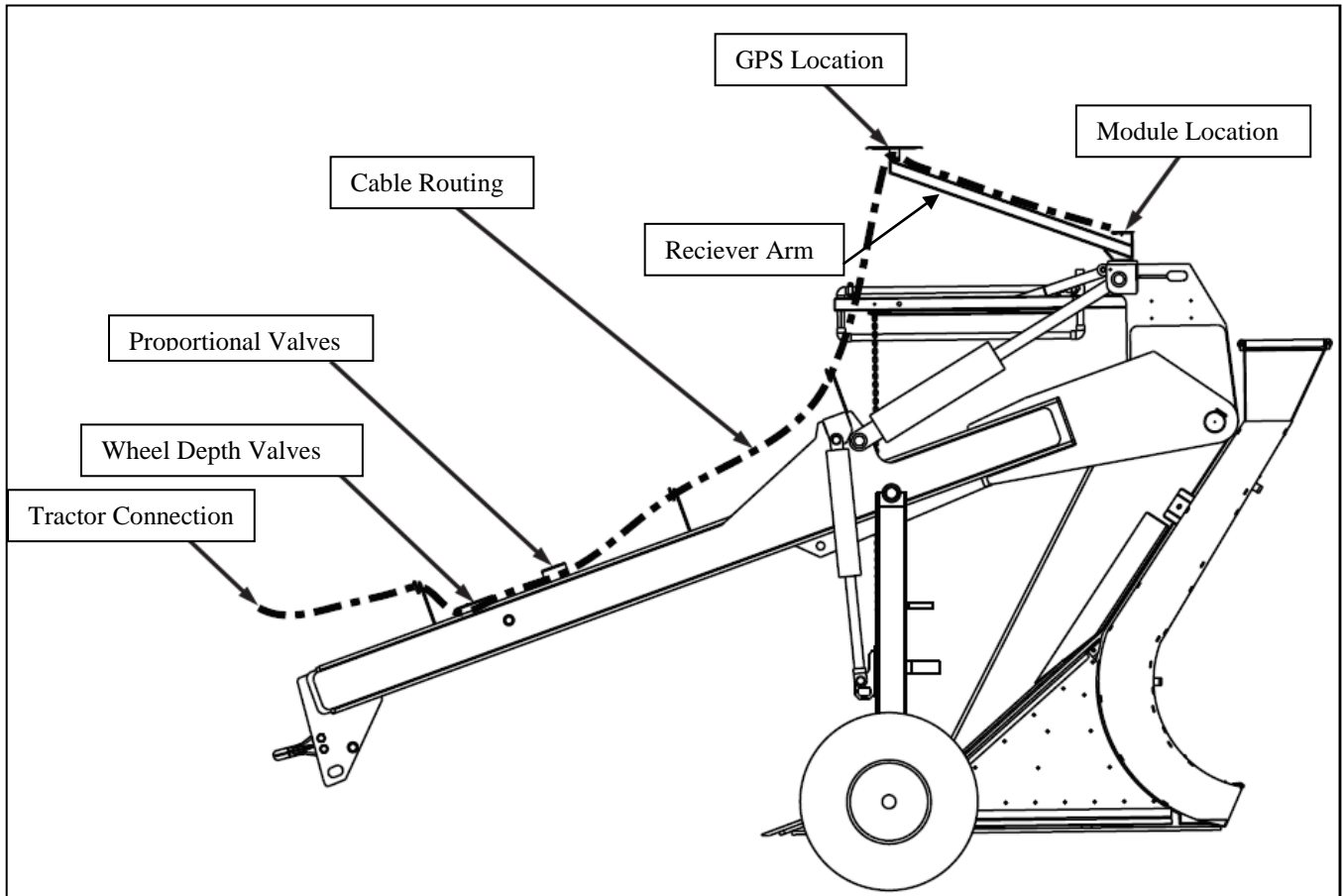


Figure 9. Plow harness and mounting locations



Figure 10. Proportional valve connections



Figure 11. DIN valve to WP2 PIN adapter (P/N: 4003477)

Water Management Module, Mounting Plate, and Breakout Cable Installation	Required Parts:	Part Number:	Quantity:
	Hex head cap screw - M10 x 75mm	2002007-10075	2
	Flat washer - M10	2002070-10	4
	Flat washer - M8	2002070-08	2
	Hex nylock nut – 10mm	2002155-10	2
	Hex nylock nut – 8mm	2002155-08	2
	Module - water management control	4003100	1
	Soil-Max Gen2 module mounting plate	4003329	1
	Cable - wmc module gps breakout	4003459-1	1

1. Install the module mounting plate (P/N: 4003329) at the base of the receiver arm as shown in Figure 9. Use 8mm hardware (hex nylock nut (P/N: 2002155-08) and flat washer (P/N: 2002070-08)) to attach mounting base to receiver arm.

NOTE – If your machine does not have a receiver arm one will need to be purchased.

2. Install Water Management Control Module (P/N: 4003100) to the mounting base with 10mm hardware (hex head cap screw (P/N: 2002007-10075), hex nylock nut (P/N: 2002155-10), and flat washer (P/N: 2002070-10)). Locate the module so that the cable connections are facing the tractor and the Ag Leader label is facing up as shown in Figure 12.



Figure 12. Module position

3. Once the module is secured to the mounting plate, connect the plow wiring harness to the module. The connectors are color coded so match up the appropriate connectors between the plow harness and the module. Press the connectors into module and use the slide lock to secure in place.
4. Install the GPS breakout cable (P/N: 4003459-1) into the brown module connector as shown in Figure 12. Press the connectors into module and use the slide lock to secure in place.

CAUTION – Do not force the connectors into the module. This can damage the pins and cause electrical issues!

5. Install the GPS receiver at the top of the receiver arm as shown in Figure 9. and use the appropriate cable to connect the GPS receiver to GPS breakout cable. Figure 13. shows an example of a receiver cable and Figure 14. shows the GPS breakout cable.

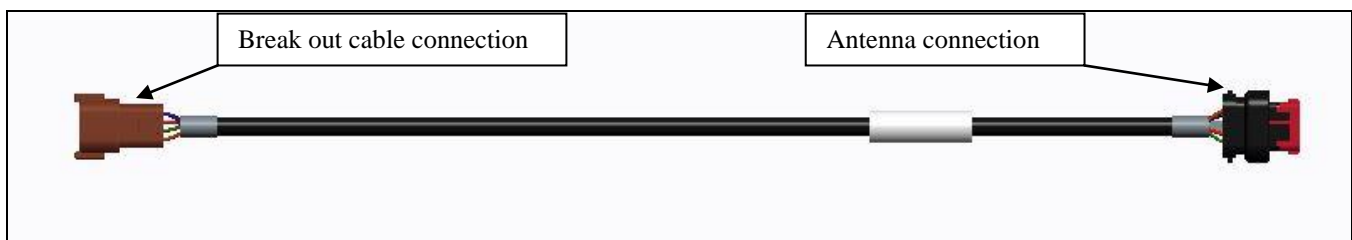


Figure 13. GPS adapter

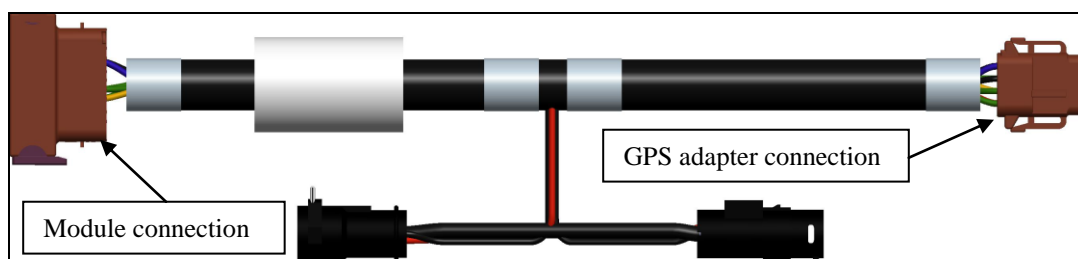


Figure 14. GPS breakout cable

Wrap Up

1. Insure that all connections are secure.
2. Insure that all cables are routed and secured away from areas they could be damaged.
3. Connect power cable to main harness.
4. System is ready to be powered up and configured. Figure 15. shows the diagnostic LED's present on the control module. These will be helpful during setup and operation to verify operation or to troubleshoot problems.

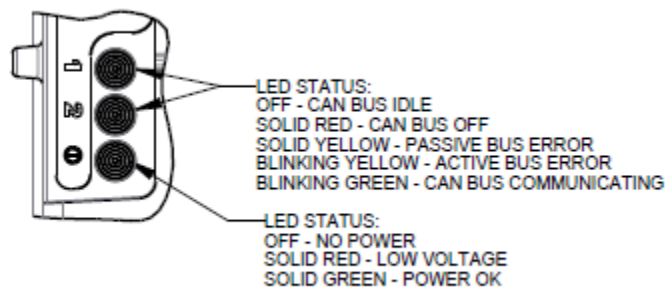


Figure 15. LED display

Revision History			
Date	Revision	Initials	Changes
11-8-12	A	BF	Composed
10-27-16	B	MW	Updated for Multiple Display Options