

PM 300 - 400 Planter Monitor

Troubleshooting & Connector Pin-Outs

[Click on problem for troubleshooting instructions](#)

- [Monitor will not power on](#)
- [Row failure or HI/LOW alarm when row is planting properly](#)
- [Hopper alarm does not sound when hopper is empty](#)
- [Hopper alarm sounds when hopper is full](#)
- [System voltage alarm](#)
- [Accessory alarm sounding when shaft, fan, or flow is working](#)
- [Ground speed alarm sounds with forward movement](#)
- [Ground speed high alarm sounding](#)
- [Self test alarm](#)

Connector Pin-outs

[Battery Pin-outs](#)

Implement Pin-outs – [PM 300 & 332](#), [PM 400](#)

[Ground Speed Pin Outs](#)

Other Troubleshooting

[FAQ's](#)

[Glossary of Symbols](#)

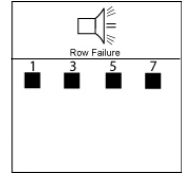
Monitor Will Not Power Up

PROBABLE CAUSE / CORRECTIVE ACTION

1. Blown Console Fuse
 - Check fuse (located near battery connection). If needed, replace with 7.5 A fuse maximum. If fuse blows again, check all harnesses for pinches or breaks that may cause power short to ground.
2. Poor Battery Connection
 - Be sure connections are clean and tight. Inspect harness for damage.
3. Low Battery Voltage
 - Console voltage must be at least 10v. If low, recharge or replace battery.
4. Defective Console
 - Console is damaged. Contact your dealer

[BACK TO TROUBLESHOOTING MENU](#)

Row Failure or HI/LOW Alarm When Row is Planting Properly



PROBABLE CAUSE / CORRECTIVE ACTION



Seed sensor coated with dirt

- Clean sensor using a dry bottle brush



Faulty sensor or harness

- Trigger sensor while observing troubleshooting LED. If sensor does not have LED, swap harness connection with adjacent sensor to determine if sensor or harness is damaged. Replace sensor or harness.

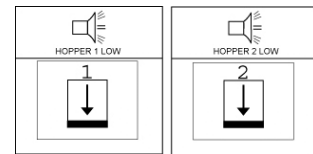


Defective console

- Console is damaged. Contact your dealer.

[BACK TO TROUBLE SHOOTING MENU](#)

Hopper Alarm Does Not Sound When Hopper is Empty



PROBABLE CAUSE / CORRECTIVE ACTION



Faulty sensor or harness open.

- Swap harness connection with another sensor to determine if sensor or harness is damaged. Use service screen if another sensor is not available. Replace sensor or repair harness.

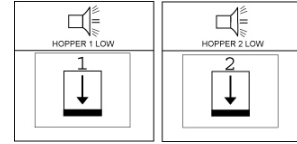


Defective console

- Console is damaged. Contact your dealer.

[BACK TO TROUBLE SHOOTING MENU](#)

Hopper Alarm Sounds When Hopper is Full



PROBABLE CAUSE / CORRECTIVE ACTION



Faulty sensor or harness open.

- Swap harness connection with another sensor to determine if sensor or harness is damaged. Use service screen if another sensor is not available. Replace sensor or repair harness.

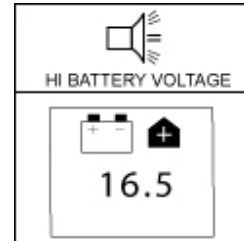


Defective console




- Console is damaged. Contact your dealer.

[BACK TO TROUBLE SHOOTING MENU](#)

System Voltage Alarm

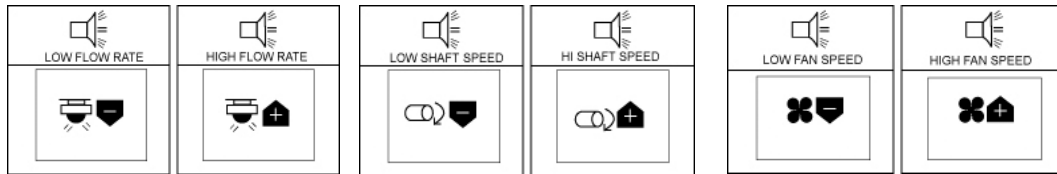


PROBABLE CAUSE / CORRECTIVE ACTION

-  **Low battery voltage**
 - Console voltage must be at least 10 V. If low, recharge or replace battery.
-  **Poor battery connection**
 - Be sure connections are clean and tight. Inspect harness for damage.
-  **Damaged harness**
 - Check all harnesses for pinches or breaks that may cause power or 8 V-sensor power short to ground.

[BACK TO TROUBLE SHOOTING MENU](#)

Accessory Alarm Sounding When Shaft, Fan, or Flow is Working



PROBABLE CAUSE / CORRECTIVE ACTION



Sensor failure

- Shaft, fan, or flow sensor not operation. Replace defective sensors.



Wrong calibration number

- Sensor calibration number is incorrect. Check calibration number in accessory setup screen.



Incorrect limits

- Sensor limits are incorrect. Check limits in accessory setup screen.

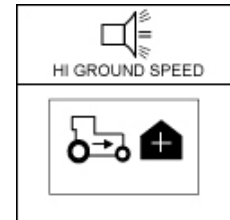


Defective console

- Console is damaged. Contact your dealer.

[BACK TO TROUBLE SHOOTING MENU](#)

Ground Speed Alarm Sounds With Forward Movement



PROBABLE CAUSE / CORRECTIVE ACTION



Ground speed sensor failure.

- No ground speed sensor is detected, or planting is detected on at least one row with no ground speed. Replace faulty ground speed sensor.

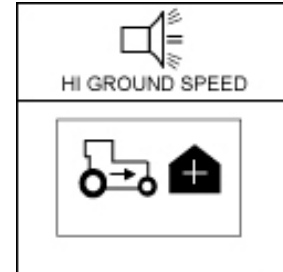


Console Failure

- Console is damaged. Contact your dealer.

[BACK TO TROUBLE SHOOTING MENU](#)

Ground Speed High Alarm Sounding



PROBABLE CAUSE / CORRECTIVE ACTION



Ground speed alarm set too low.

- Set ground speed alarm limit higher or to zero to disable.

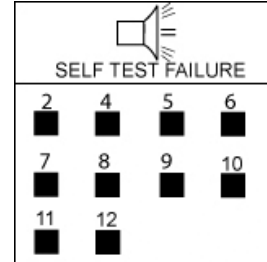


Incorrect ground speed constant

- Ground speed sensor has not been calibrated, RADAR sensor angle has changed, or incorrect sensor constant is entered. Use SPEED, AREA, DISTANCE mode to determine if speed is correct. If incorrect, recalibrate speed constant (Speed Setup Screen).

[BACK TO TROUBLE SHOOTING MENU](#)

Self Test Alarm



PROBABLE CAUSE / CORRECTIVE ACTION



Seed sensor coated with dirt.

- Clean sensor using dry bottle brush



Faulty sensor or harness

- Trigger sensor and observe troubleshooting LED. If sensor does not have LED, swap harness connection with adjacent sensor to determine if sensor or harness is damaged. Replace sensor or harness.



Console failure

- Console is damaged. Contact your dealer.

[BACK TO TROUBLE SHOOTING MENU](#)

Battery Pin Out

PIN LABEL	DESCRIPTION
Red Wire	Battery +12V
Black Wire	Battery Ground

[BACK TO TROUBLE SHOOTING MENU](#)

PM 300 Implement Harness

PM 300 Implement

PIN #	DESCRIPTION
1	Row 1 (green)
2	Row 2 (brown)
3	Row 3 (blue)
4	Row 4 (orange)
5	Row 5 (yellow)
6	Row 6 (violet)
7	Row 7 (gray)
8	Row 8 (pink)
9	Row 9 (tan)
10	Row 10 (wht/blk)
11	Row 11 (red/blk)
12	Row 12 (grn/blk)
13	Row 13 (org/blk)
14	Row 14 (blue/blk)
15	Row 15 (black / white)
16	Row 16 (red / white)

Continued

17-23	No connection
24	8V sensor power (red)
25	8V sensor power (red / blk/ wht)
26	Sensor return (black)
27	Sensor return (wht / blk / red)
28	No connection
29	Hopper 1 (green / white)
30	Hopper 2 (blue / white)
31	Shaft / fan / flow (black / red)
32	8V power (red)
33	12V switched power (wht/red)
34	12V return (black)
35	RS-232 Rx (blue / red)
36	RS-232 Tx (red / green)
37	Lift Switch (orange / red)

[BACK TO TROUBLE SHOOTING MENU](#)

PM 332 Implement Harness

PM 332 Implement

PIN #	DESCRIPTION
1	Row 1 (green)
2	Row 2 (brown)
3	Row 3 (blue)
4	Row 4 (orange)
5	Row 5 (yellow)
6	Row 6 (violet)
7	Row 7 (gray)
8	Row 8 (pink)
9	Row 9 (tan)
10	Row 10 (wht/blk)
11	Row 11 (red/blk)
12	Row 12 (grn/blk)
13	Row 13 (org/blk)
14	Row 14 (blue/blk)
15	Row 15 (black / white)
16	Row 16 (red / white)
17	Row 17 (green / white)
18	Row 18 (blue / white)
19	Row 19 (black red)

continued

20	Row 20 (white / red)
21	Row 21 (orange / red)
22	Row 22 (blue / red)
23	Row 23 (red / green)
24	+8V sensor power left (red)
25	+8V snsr pwr right(red/blk/wht)
26	Ground left (black)
27	Ground right (wht / blk / red)
28	Row 24 (orange)
29	Row 25 (blk / wht / red)
30	Row 26 (grn /blk / wht)
31	Row 27 (org / blk/ wht)
32	Row 28 (blue / blk / wht)
33	Row 29 (blk / red/ green)
34	Row 30 (wht / red / green)
35	Row 31 (red / black / green)
36	Row 32 (green / black / orange)
37	Lift Switch (wht)

[Click here for pinouts to PM 332 Implement Accessory Harness](#)

[BACK TO TROUBLE SHOOTING MENU](#)

PM 332 Implement Accessory

Pin #	Description
1	Lift Switch (light green)
2	Hopper #1 (brown)
3	Hopper #2 (light blue)
4	Frequency (orange)
5	+8V Acc Power (yellow)
6	+12V Acc Power (purple)
7	Acc Return (gray)
8	RS-232 Rx (pink)
9	RS-232 Tx (neutral)

[BACK TO TROUBLE SHOOTING MENU](#)

PM 400 Implement

Implement 1

1	Row 1 (green)
2	Row 2 (brown)
3	row 3 (blue)
4	Row 4 (orange)
5	Row 5 (yellow)
6	Row 6 (violet)
7	Row 7 (gray)
8	Row 8 (pink)
9	Row 9 (tan)
10	Row 10 (wht / blk)
11	Row 11 (red / blk)
12	Row 12 (green / blk)
13	Row 13 (orange / blk)
14	Row 14 (blue / blk)
15	Row 15 (blk / wht)
16	Row 16 (red wht)
17	Row 17 (green / wht)
18	Row 18 (blue / wht)
19	Row 19 (black / red)

continued

20	Row 20 (wht / red)
21	Row 21 (orange / red)
22	Row 22 (blue / red)
23	Row 23 (red / green)
24	+8V sensor pwr left (red)
25	+8V sensor pwr right (red)
26	Sensor return (black)
27	Sensor return (black)
28	Row 24 (orange / green)
29	Hopper 1 (wht)
30,31	No connection
32	8V power (red)
33	No Connection
34	Sensor return (black)
35,36	No connection
37	Lift switch (blk / wht/ red)

[Click here for pin outs to PM400 Implement 2](#)

[BACK TO TROUBLE SHOOTING MENU](#)

PM 400 Implement 2

Implement 2

1	Row 25 (green)
2	Row 26 (brown)
3	Row 27 (blue)
4	Row 28 (orange)
5	Row 29 (yellow)
6	Row 30 (violet)
7	Row 31 (gray)
8	Row 32 (pink)
9	Row 33 (tan)
10	Row 34 (wht / blk)
11	Row 35 (red / blk)
12	Row 36 (green / blk)
13-23	No connection
24	8V snsr pwr (red/blk/wht)
25	8V snsr pwr (red)
26	Snsr return (wht/blk/red)

continued

27	Sensor return (black)
28	No connection
29	Hopper 1 (orange/blk)
30	Hopper 2 (blue/blk)
31	Shaft / fan / flow (blk/wht)
32	8V power (red)
33	12V switched pwr (grn/wht)
34	12V return (black)
35	RS-232 Rx (blue/wht)
36	RS-232 Tx (red/wht)
37	No connection

[BACK TO TROUBLE SHOOTING MENU](#)

Ground Speed

PIN#	Description
1	Ground (black)
2	Signal (green)
3	Power (red)
4	Sense (white)

[BACK TO TROUBLE SHOOTING MENU](#)

Frequently Asked Questions

PM300/400

- **Q: Can I use a RPM sensor such as a reluctance sensor for my ground speed input?**
A: No, the PM300/400 cannot read the signal produced from a reluctance sensor. It can only read a square wave/digital signal. For best results, use either our RVSII/RVSIII, iSpeed, or Hall Effect Sensor.
- **Q: On my PM400, how many rows can I put on J1 by itself?**
A: J1 can take 24 row inputs. Any more, and you'll have to put extra rows on J2. However, the PM400 can only monitor 48 rows at a time. If you want to monitor more rows, try our Seed Manager SE for population or DjASM II for no population. The **PM300** can take 16 rows on J1.
- **Q: My PM300 / 400 won't stop counting acres and is only showing speed.**
A: You could be in Speed and Area mode. Push Operate to show normal operation. Speed and Area mode should not be used unless you are using the monitor for a non-planting operation, cultivating, plowing, disking, etc.
- **Q: Is there a quick way to clear the acres off the monitor?**
A: Yes, use the up and down arrows next to the display to make sure the acre accumulator is at the top of the screen. Then, push and hold Escape for three seconds, and it will clear.
- **Q: My ground speed sensor has malfunctioned. Can I put a manual speed in?**
A: Yes, push the ground speed button, scroll down to the manual speed, and enter a speed you typically run. Keep in mind, you need to maintain the entered speed you enter to maintain proper acre counter, population, and spacing. If you lose speed as you plant, an alarm will sound and a tractor with an X through it will be displayed. When this happens, at the bottom of the screen the number 00.0 will be a highlighted. Use the up and down arrow keys to the right of the display to change to your normal planting speed, and then press enter. This will automatically put you into a manual mode. Once this is completed, press the operate key and start planting.

[Other frequently asked questions](#)

[BACK TO TROUBLE SHOOTING MENU](#)



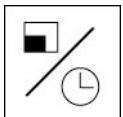

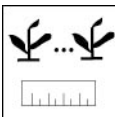



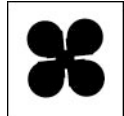
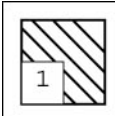
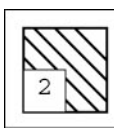




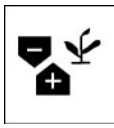









Frequently Asked Questions

PM300/400 (continued)

- **Q: Is there any way to adjust the brightness of the screen to make it is easier to read?**
A: Yes, press the display and service button. Using the up and down arrow keys to the right of the display scroll down to the light bulb, press enter, and use the up and down buttons to adjust brightness.
- **Q: Is there any way to change the volume of the alarm?**
A: Yes, press the Display and Service button. Using the up and down arrow keys scroll down to the speaker, press Enter, and use the up/down arrows to adjust the volume. Once you have found a tolerable level, press Enter to save your settings. Then press the Operate key to resume planting.
- **Q: Can I change the font size on the display?**
A: Yes, press the Display and Service button. Using the up/down arrow keys, scroll down to the magnifying glass, and press Enter. When you found the font size you like, press Enter to save, then press Operate to resume planting.
- **Q: Can I use the PM300 / 400 to count acres only?**
A: Yes, push the Speed and Area button to access one of the different counters. There are four different counters to choose from, and there will be a stop and start function for each counter. After selecting the counter you want, use the up/down arrow keys to the right of the display, and press Enter to stop/start the selected acre counter. To clear all totals, press the Clear button.
- **Q: Can the PM300 / 400 monitor fertilizer drops as well as seed drops?**
A: Yes, press the Accuracy setup button. Using the up/down arrow keys to the right of the display, select what you want the monitor to do and calibrate accordingly. The PM 300/400 can also monitor a shaft and fan sensor

[BACK TO TROUBLE SHOOTING MENU](#)

Glossary of Symbols

 Alarm	 All Rows Failed	 Area Per Hour	 Average Population	 Average Spacing
 Backlight	 Configuration	 English to Metric	 Fan	 Field Area 1
 Field Area 2	 Flow	 Graphic Text	 HiLo	 Hopper Low
 Minimum Average Maximum Population	 Minimum Average Maximum Seeds per Distance	 Minimum Average Maximum Spacing	 No Flow	 No Speed
 Planter Lifted	 Population Adjust	 Population Row Scan	 Reset	 Response Rate

[Symbols Continued](#)

[BACK TO TROUBLE SHOOTING MENU](#)

Glossary of Symbols

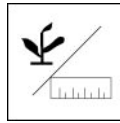
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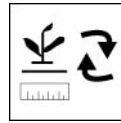
Save
Password



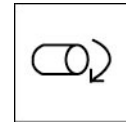
Security



Seeds Per
Distance



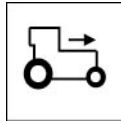
Seeds Per
Distance Row
Scan



Shaft



Spacing Row
Scan



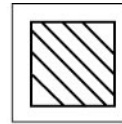
Speed



Start



Stop



Total Area



Warning

[BACK TO TROUBLE SHOOTING MENU](#)