Sensor-1
Agricultural Electronics

GPS Digital Speed Display

Version 1.2 - Amp Style

Table of Contents

GPS Digital Speed Display User Manual

Introduction

The GPS Digital Speed Display uses the GPS to give you an accurate ground speed. It features a large digital display, a red “status” light and a green “GPS” light. You will also notice a 4-pin amp connector on the left side. The wire on the right side leads to the “mushroom” antenna.

Features: When in operation, the display will show your true ground speed. The two lights indicate your GPS links. A steadily shining red light indicates that you have a link to a WAAS satellite, while a blinking red light means that you do not have a WAAS satellite link. A steady green light means that you have a link to 4 or more satellites. NOTE: You do not have to have a steady red light for your display to operate correctly.

(Note: The red “Status” light applies to version 1.2. If you have an earlier version of the digital speed display, the red light will say “Power” and will not blink and does not indicate a WAAS signal.)

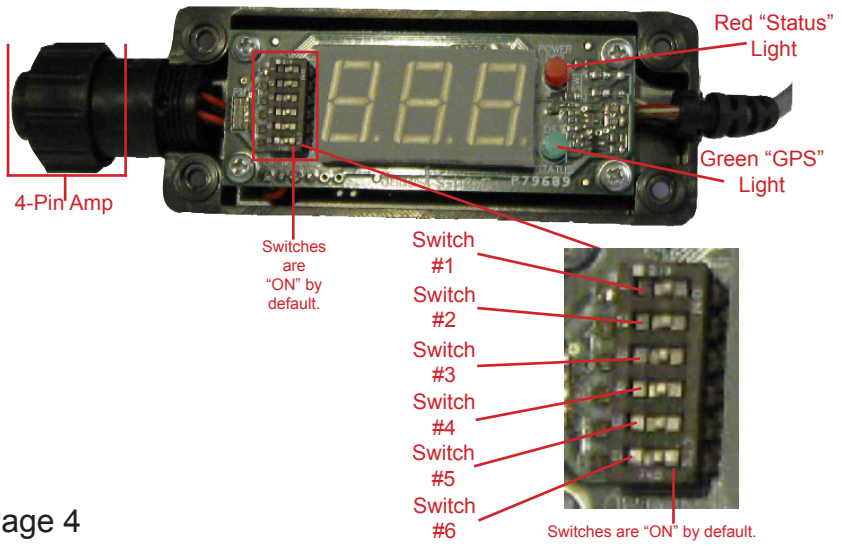
Installation

4-Pin Amp: When you receive your GPS Digital Speed Display and Antenna, it will be ready to hookup to any 4-pin amp speed input. This means that you should be able to hook it up to most DICKEY-john, John Deere, and Case IH monitors without any alterations. Simply hook the four-pin end of the display in the 4-pin amp on your monitor.

Adapter: If you are using a monitor without a 4-pin amp, you will need an adapter. Monitors that you would need an adapter cable for are some DICKEY-john, Raven, Hiniker, Micro-Trak and Tee-Jet monitors, or if you are connecting directly to a tractor radar cable. Adapter cables for any of these are available through Sensor-1.

The adapter cable will connect the 4-pin amp on the side of the speed display to your monitor or tractor radar cable. Simply match the appropriate ends. Before you connect the unit to a power source, there is still one thing you must do if you are using an adapter.

Digital Display Circuit Board



Configuring the Display for use with an Adapter

To have the display working correctly, you will have to open the unit up and change a number of dip-switches. The unit's default setting is to have all of these switches on. If using an adapter, you will have to turn one or more of these switches off. To do this, simply follow the steps below:

1. Review: Review the Digital Display Circuit Board above to familiarize yourself with its parts.
2. Power: Make sure the unit is not hooked up to any sort of power source.
3. Remove the Case: Turn the unit over and remove the four screws on the back. Remove the top case, revealing the printed circuit board inside.
4. Locate the Switches: Locate the set of 6 dip-switches. They are located to the left of the display board and to the right of the 4-pin amp connector.
5. Flip the Switches: Using a needle or other small item, carefully flip the appropriate dip-switches. Use the following guide to be sure of which switches to flip. To give an example, if you are trying to connect the display to a Tee-Jet monitor, you will have to open the unit up and flip switch #1 and #3 off, but leave switches #2, #4, #5, and #6 on.
6. Replace the cover: When you are sure that you have the switches in the correct positions for your needs, place the front cover back on the unit and screw it back together.

You may now connect your connector cable to the display unit and to your monitor. The unit should now work correctly with your monitor.

Type of Monitor	Constant	Hz/mph	Connector Type
MT84 Calc/FlowTrak	1.74	10.12	2 Pin w/ Adapter
Hiniker Acre Commander	26.931	10.12	3-Pin Cannon
Hiniker Computer Facts	13206.661	10.12	3-Pin Cannon
Hiniker Spray Commander	378.583	10.12	3-Pin Cannon
Hiniker 8100	24.5	10.12	3-Pin Cannon
AutoTrol	.875	10.12	3-Pin Metri-Pack
Calc-An-Acre	.875	10.12	3-Pin Metri-Pack
Calc-An-Acre II	.239	57	3-Pin Metri-Pack
Flow Trak	.875	10.12	3-Pin Metri-Pack
Flow Trak II	.239	57	3-Pin Metri-Pack
GSC-1000	.239	57	3-Pin Metri-Pack
MT Gen I & MT-340F	.90	10.12	3-Pin Metri-Pack
MT Gen II, MT 3405F II	.189	57	3-Pin Metri-Pack
MT-NH311	.239	57	3-Pin Metri-Pack
MT-2405F	.875	10.12	3-Pin Metri-Pack
MT-2405F II	.239	57	3-Pin Metri-Pack
MT-3405D	.239	57	3-Pin Metri-Pack
MT-3405F	.875	10.12	3-Pin Metri-Pack
MT-3405F II	.239	57	3-Pin Metri-Pack
MT9000	.90	10.12	3-Pin Metri-Pack
ProPlant	.239	57	3-Pin Metri-Pack
ProSeed	.239	57	3-Pin Metri-Pack
RoadMaster	.239	57	3-Pin Metri-Pack
SodPro	.875	10.12	3-Pin Metri-Pack
SodPro II	.239	57	3-Pin Metri-Pack
Speed-O-Matic	.875	10.12	3-Pin Metri-Pack
SprayMate	.875	10.12	3-Pin Metri-Pack
SprayMate II	.239	57	3-Pin Metri-Pack
MT3000	1.80	10.12	3-Pin Weather-Pack
Tee-Jet 844	1150	57	3-Pin Deutch
Tee-Jet 855	1167	57	3-Pin Deutch
Raven 440, 460	586	57	3-Pin Conxall
DICKEY-john 3000	1480	57	4-Pin Amp
Early Riser	7773	57	4-Pin Amp
John Deere 200 & 300	7773	57	4-Pin Amp

Continued on top of next page.

Type of Monitor	Constant	Hz/mph	Connector Type
Mid-Tech ARC6000	1220	57	4-Pin Amp
Seed Manager	7773	57	4-Pin Amp
Sensor-1 9816H	7773	57	4-Pin Amp
Sensor-1 PM2005	15546	57	4-Pin Amp

6 dip-switch Monitor Configurations

Configuration		Switch					
		1	2	3	4	5	6
AMP (default settings)	57 Hz	On	On	On	On	On	On
DICKEY-john	44 Hz	On	Off	On	On	On	On
Raven	57 Hz	On	On	Off	On	On	On
Micro-Trak	10.12 Hz	Off	On	Off	On	On	On
Hiniker	10.12 Hz	Off	On	Off	On	On	On
Tee-Jet	10.12 Hz	Off	On	Off	On	On	On

Dip-Switch Special Configurations

Dip-Switches						Pulse Rate	1 PPS No PPS	MPH KPH	WAAS Enable	Loss - GPS Signal Delay
1	2	3	4	5	6					
OFF	OFF	x	x	x	x	Reserved				
ON	OFF	x	x	x	x	44 Hz	N/A	N/A	N/A	N/A
OFF	ON	x	x	x	x	10.12 Hz	N/A	N/A	N/A	N/A
ON	ON	x	x	x	x	57 Hz	N/A	N/A	N/A	N/A
x	x	OFF	x	x	x	N/A	No PPS[1.]	N/A	N/A	N/A
x	x	ON	x	x	x	N/A	1 PPS[2.]	N/A	N/A	N/A
x	x	x	OFF	x	x	N/A	N/A	KPH	N/A	N/A
x	x	x	ON	x	x	N/A	N/A	MPH	N/A	N/A
x	x	x	x	OFF	x	N/A	N/A	N/A	WAAS Off	N/A
x	x	x	x	ON	x	N/A	N/A	N/A	WAAS On	N/A
x	x	x	x	x	OFF	N/A	N/A	N/A	N/A	2 Min.[3.]
x	x	x	x	x	ON	N/A	N/A	N/A	N/A	30 Sec.[3.]

Note: x Indicates that switch can be in either position.

1. No Output on loss of GPS Signal
2. 1 PPS Output on loss of GPS Signal
3. Speed output after loss of GPS Signal

Digital In-Line Speed Read Out

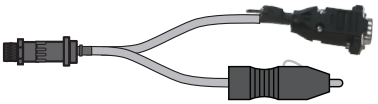
Radar/GPS Adapters

Call for your custom adapter!

Cigarette Lighter Adapter

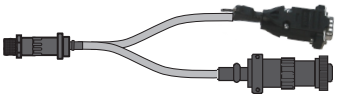
AA04RSR-CLP *List Price $35.00*

Cigarette Lighter Adapter with DB9



YA04RSR-DB9F&CLP *List Price $50.00*

Adapts to DB9 & DICKEY-john Monitor



YA04RSR-DB9F&A04RSP *List Price $50.00*

Raven Monitor

AA04RSR-RP *List Price $35.00*

John Deere Tractor

AA04RSR-4WPTSJD *List Price $35.00*

Micro-Trak Monitor

AA04RSR-3MMH (Micro-Trak)
AA04RSR-3MJH (John Deere) *List Price $35.00*

MT-3000 Monitor

AA04RSR-MT3H *List Price $35.00*

Tee-Jet Monitor

AA04RSR-TJ855
AA04RSR-TJ *List Price $35.00*

John Deere Tractor
(Weather-Pack 4 pin tower)

AA04RSR-4WPTHJD *List Price $35.00*

Case-IH Tractor
(Weather-Pack 4 pin tower)

AA04RSR-4WPTHIH *List Price $35.00*

Hinker Monitor

AA04RSR-3CS *List Price $35.00*

Sensor-1 Warranty

Sensor-1 warrants to the original purchaser for use that, if any part of the product proves to be defective in material or workmanship within three years from date of original purchase, Sensor-1 will (at our option) either replace or repair said part. This warranty does not apply to damage resulting from misuse, neglect, accident, or improper installation and maintenance. THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF MERCHANTABILITY FITNESS FOR PURPOSE AND OF ANY OTHER TYPE, WHETHER EXPRESSED OR IMPLIED. **Sensor-1 neither assumes nor authorizes anyone to assume for it any other obligation or liability in connection with said part and will not be liable for consequential damages. Purchase accepts these terms and warranty limitations unless product is returned within thirty days for a full refund if the product is not used. A 5% restocking fee will apply to all returned items. Special orders are non-refundable.**

Sensor-1 Return Policy

Sensor-1 offers a full refund or replacement for merchandise returned unused in resalable condition. All merchandise must be returned in its original packaging within 30 days or original invoice date. All returned items must be accompanied by a Return Merchandise Authorization number (RMA#). You may obtain an RMA# by calling a Sensor-1 service representative at 1-800-736-7671. All returns may be subject to a 15% restocking fee. Any item that is returned within the warranty period, as defective, will be tested by one of our technicians and either repaired or replaced. Any parts returned that have been used will be replaced or repaired and returned to sender. If credit is required, a 15% restocking fee is charged. Parts returned due to customer error will be subject to a restocking fee and any non-catalog or custom items are non-returnable. All shipping charges are non-refundable.

Notes

Notes

GPS Digital
Speed Display

Sensor-1
Agricultural Electronics

202 Main Street
Princeton, Kansas 66078