GPS SPEED SENSOR

INSTALLATION AND SPECIFICATIONS

GPS Speed Sensor Installation

1. Place the GPS Speed Sensor in a location inside the vehicle that is easily viewed while driving.
2. Mount the GPS Speed Sensor using the two screws or Velcro® (included).
3. Connect the GPS Speed Sensor cable to the Rate Controller (see Miscellaneous Adapter Cables, page 2).
4. Connect the antenna cable to the antenna SMA Connector on the back of the GPS Speed Sensor.

CONNECTOR EXAMPLES

4-pin AMP connector (Mid-Tech/generic)

Conxall 3 position connector (Raven)

Deutsch 3 position connector (TeeJet)

Amphenol 7 position connector (Radion)

GPS Speed Sensor Operation

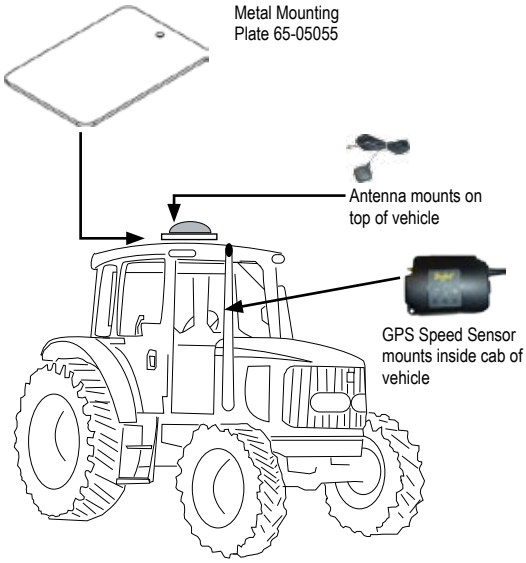
Icon	Indicator	Color	Description
	Speed	Green	LED will blink when a ground speed signal is present
	GPS Status	Blue	GPS is detected. The light will blink consistently when vehicle moves. If the vehicle is stationary, the LED will blink irregularly.
	Power	Red	A solid light indicates power.

Antenna Mounting Considerations

1. The antenna must be located in an area with a clear view of the sky and mounted at the highest point on the vehicle in the center of the roof.
2. If the vehicle is non-metallic, attach the metal mounting plate via the Velcro® strips. Place the antenna on the metal plate.
3. Avoid overhead metal objects that may interfere with satellite signals.
4. Avoid mounting in areas that receive excessive vibration.
5. Mount antenna away from sources of electromagnetic output such as radio antennas and electric motors.
6. Make sure the antenna's cable can be safely routed to the cab from the mounting position.

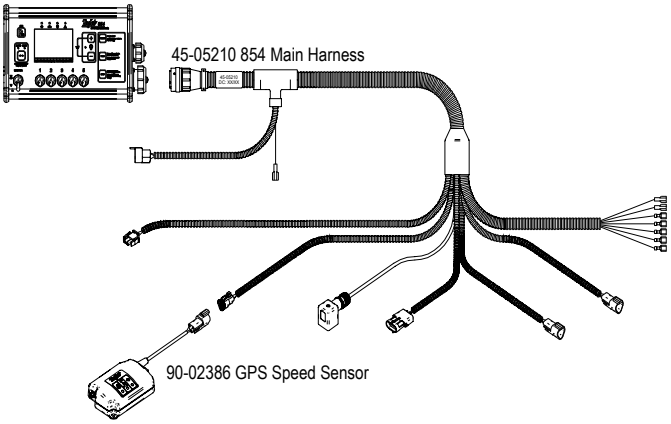
Antenna Installation

1. Make sure the surface of the vehicle is clean, dry, and free of dust particles.
2. Magnetically mount the antenna to a metal surface.
3. If the vehicle is non-metallic, attach the metal mounting plate via the Velcro® strips. Place the antenna on the metal plate.

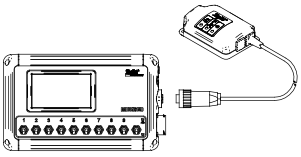


CONNECTING TO A 800 SERIES CONSOLE SYSTEM

90-02108 854 Console Kit



CONNECTING TO A RADION CONSOLE SYSTEM



75-50064 Radion 8140-5 Console
75-50065 Radion 8140-7 Console
75-50066 Radion 8140-9 Console

SPECIFICATIONS

Electrical Connection Specifications

4 Position AMP CPC With Pins

1. Ground
2. Speed Frequency Out
3. +12VDC in (9-16V)
4. Radar Sense Out (Tied to Pin 3)

Operating Voltage* ..... 9-16 VDC
Signal 0-12 VDC..... 50% Duty Cycle, Square Wave
Antenna and Speed Sensor Sealed to IP67
Operating Temperature Range ..... -40°C to +85°C
Storage Temperature Range ..... -40°C to +85°C
** Power for the GPS Speed Sensor is supplied by the Rate Controller*

Physical Specifications

Sensor Length ..... 4.4 in / 113 mm
Sensor Width ..... 3.2 in / 82 mm
Sensor Depth..... 1.3 in / 32 mm
Sensor Connector (Power and Signal) ..... 4 Position AMP CPC w/ Pins
Sensor Cable Length..... 6.0 ft / 1.8 m
Antenna Cable Length..... 13.1 ft / 4 m
Antenna (connector) ..... SMA

Performance Specifications

GPS Acquisition Time..... Less than 1 minute
GPS Update Rate..... 5 Hz
Speed Output Update..... 5 Hz
Output Frequency..... 130 Pulses per Meter
..... 58.11 Hz Per mph / 36.11 Hz Per kph
Speed Range..... 0.8 - 80 mph / 1.29 - 130 kph

Calibration Numbers

TeeJet Technologies Products	Typical Speed Calibration Number
Legacy PCM/DCM	769
TASC/ARC	769
TeeJet Radion 8140	13000*
TeeJet 844/854/834	1300 (with RAD "ON")
LH 70 Series	13000
LH 85	13000
LH 500 Series	13000
LH 5000	13000
LH 6000	13000
LH IC24	13000 or 0.769 cm per pulse**
LH IC34	13000
Raven	607 US, 154 Metric***

* *Speed Source should be set to "Implement"*
** *depending on the application*
*** *this calibration # is entered in conjunction with setting SPII or radar, whichever is applicable for the console*

Part Numbers

Kits and Sensors

90-02868	Kit, GPS Speed Sensor for Radion Console
90-02371	Kit, GPS Speed Sensor for Mid-Tech Controls
90-02386	Kit, GPS Speed Sensor for TeeJet Controls
90-02404	Kit, GPS Speed Sensor for Raven Controls
78-50155	Patch Antenna
78-05068	GPS Speed Sensor with 4 pin AMP connector
78-05070	GPS Speed Sensor with 3 position Conxall connector
78-05071	GPS Speed Sensor with 3 position Deutsch connector
78-05107	GPS Speed Sensor with 7 position amphenol connector

Miscellaneous Adapter Cables

45-05440	Extension cable for GPS Speed Sensor or DICKEY-john radar (6' / 1.8 m)
402-0005	Extension cable for GPS Speed Sensor or DICKEY-john radar (18' / 5.5 m)
402-0035	Extension cable for GPS Speed Sensor or DICKEY-john radar (30' / 9 m)
45-20042	Adapter cable for GPS Speed Sensor or DICKEY-john radar to TeeJet Controls (1' / 0.3 m)
402-0003	GPS Speed Sensor or DICKEY-john radar "Y" cable, 2x14" Leads
402-0015-D	"Y" cable for GPS Speed Sensor or DICKEY-john radar. Provides 2 additional speed signal outputs for Mid-Tech consoles or equivalent (4-pin AMP CPC connector). Two console leads @ 8" (20 cm) long, and one console lead at 6' (1.8 m).
405-0114-D	"Y" cable for GPS Speed Sensor or DICKEY-john radar. Provides 2 additional speed signal outputs for Mid-Tech consoles or equivalent (4-pin AMP CPC connector). Two console leads @ 8" (20 cm) long, and one console lead at 15' (4.5 m).

Warranty

1 Year from Date of Purchase

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