MICRO-TRAK® SYSTEMS, INC.

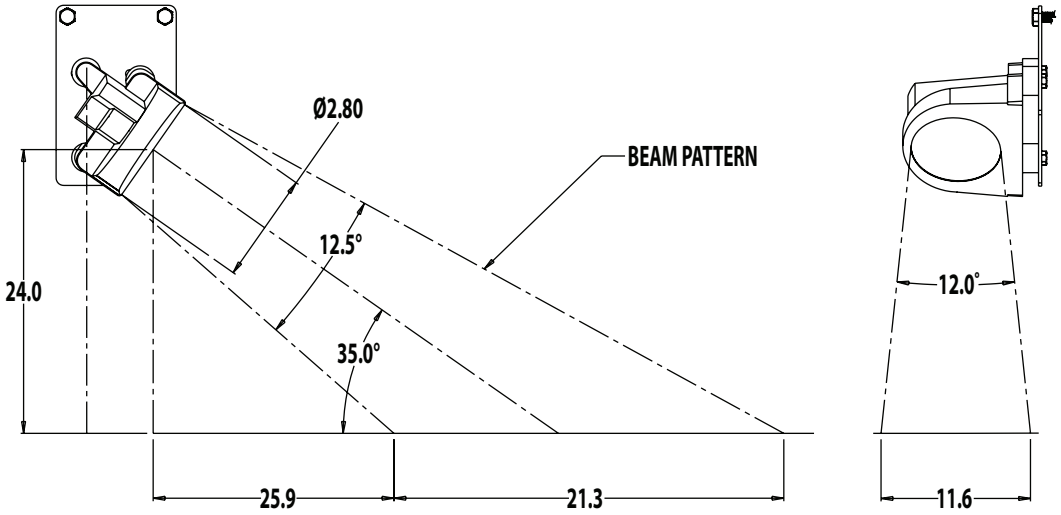
Reference Guide
Vansco Radar Speed Sensor
Installation

COMPONENTS:

- (1) Vansco Radar Speed Sensor
- (1) Vansco Radar Mount Kit

  KIT INCLUDES:
  - (1) Mount bracket (M-T P/N #17281)
  - (3) M6 x 12mm screw (M-T P/N #17377)
  - (3) 1/4" lock washer (M-T P/N # 10057)
  - (5) 14" nylon tie (M-T P/N #10045)
- (1) Adapter cable for new Micro-Trak products (only included with radar P/N 01527)

The Vansco radar is typically installed at a height of 2 feet (0.6 m), but can be installed up to 4 feet (1.2 m) above the ground or above the top of the crop. The sensor can be mounted facing forward or rearward, and positioned so that it has a clear view of the ground.



BRACKET INSTALLATION AND MOUNTING:

- Use the mounting bracket (M-T P/N # 17281) supplied, or other suitable method.
- Install the mount bracket (M-T P/N # 17281) to the Vansco radar with the M6 x 12mm screws (M-T P/N # 17377) and 1/4" lock washers (M-T P/N # 10057) supplied. ***See photo at right.***

NOTE: For proper operation, the radar face must be in-line with the direction of travel; the radar face must NOT point upwards.

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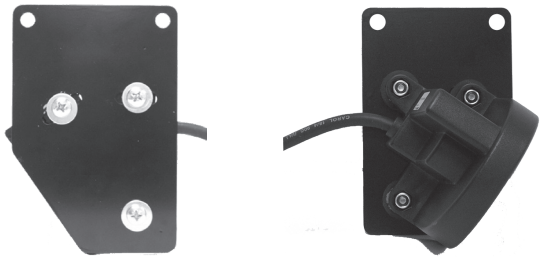
Installation (cont.)

In order to check that your installation location will allow the Vansco radar to be mounted at the proper angle, and free from interference, attach the mount bracket **(M-T P/N # 17281).** Hold the temporarily-secured radar in the desired mounting position. Make sure that the radar can be tilted to the recommended angle. ***See "General Mounting Information".***

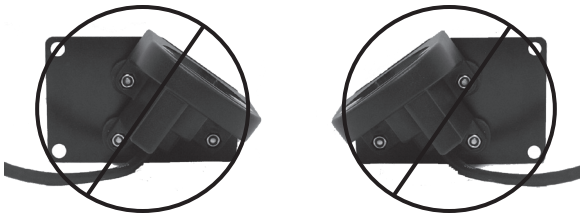
Once a suitable mounting position has been determined, attach the mounting bracket **(M-T P/N # 17281)** in the desired position.

Securely tighten the mounting bracket **(M-T P/N # 17281)** to vehicle.

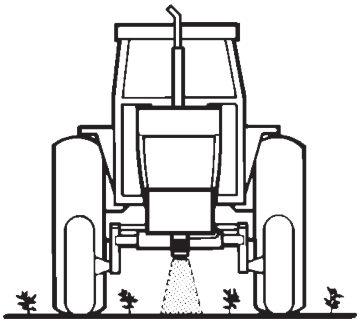
NOTE: Some possible mounting locations are shown below.

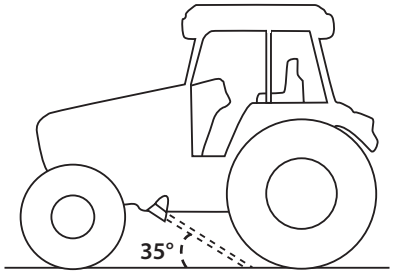


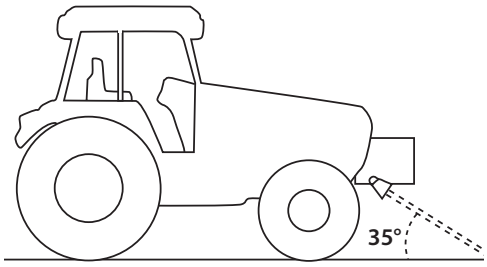
Correct mounting positions



Incorrect mounting positions







CALIBRATION:

If you are using a Micro-Trak console, start with a distance calibration (CIRC) of 0.151 and perform "Fine-tuning Speed/Distance Calibration" outlined in the console's reference manual.

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Troubleshooting

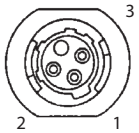
Many problems are the result of mistakes in installation or operation. Before returning any parts for service, carefully check your installation and review the operating instructions. If you have determined that the Vansco radar unit needs service, or for warranty issues, please call one of the following certified Ag Express locations:

Grand Island, NE	Des Moines, IA	Sulphur Springs, IN
(308) 381-2905	(515) 289-2746	(765) 533-4809

Be sure to ask about any associated charges.

TIPS FOR TROUBLESHOOTING

1. Disconnect the radar adapter cable from the console harness.
2. Check for 12 VDC between pins B and C of the main harness connector (yellow tie). If not present, console or harness may be defective.
3. Using a jumper wire (paper clip bent into a "U"), rapidly short together positions A and C of the main harness speed connector (yellow tie) several times. The console should respond with some MPH reading. If not, the console or harness may be defective.
4. Reconnect the radar adapter cable to the main harness speed connection (yellow tie).
5. Disconnect the radar from the radar adapter cable.
6. Check for 12 VDC between pins 1 and 3 of the radar adapter connector (round 4-pin — see diagram below). If it is not present but was present in step 2, the radar adapter cable may be defective.
7. Using a jumper wire (paper clip bent into a "U"), rapidly short together positions 2 and 3 of the radar connector (round 4-pin) several times. The console should respond with some MPH reading. If not, but had a reading in step 3, the radar adapter cable may be defective.
8. If system passes all above tests, the radar may be defective.



1. Ground (Black)
2. Signal (Red)
3. 12 volts (White)

CARE AND MAINTENANCE:

1. The Vansco radar's case is watertight under normal weather conditions and washing. However, do not subject the Vansco Radar to steam or pressure cleaning.
2. When cleaning is desired, use a mild detergent and low pressure water.
3. Nicks or cuts in cable insulation should be immediately sealed or repaired to prevent corrosion to the wire or short circuits.
4. If an arc welder or any other source of high voltage will be used on the tractor or implement, disconnect all ground and power wires to prevent damage to the electronics.

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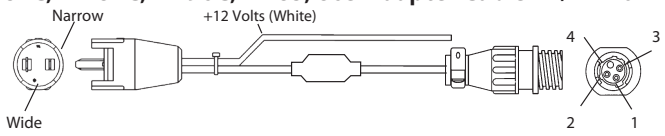
Vansco Radar Speed Sensor

Adapter Cables

By substituting the appropriate cable for the cable supplied, the Vansco radar speed sensor may also be used with a variety of other makes and models of controllers and monitors. See the pin-out information for each below.

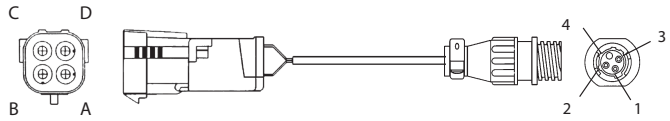
84C, FT 84C, YT 96C, YT 85, 86S Adapter Cable - P/N 14024



Narrow = Signal (Red)
Wide = Ground (Black)

1 = Ground (Black)
2 = Signal (Red)
3 = 12 Volts (Green)
4 = N/C

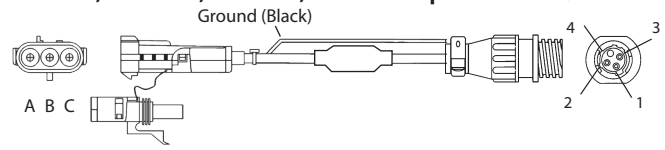
DICKEY-john/Packard Adapter Cable - P/N 14027



A = Ground (Black)
B = Signal (Red)
C = 12 Volts (White)
D = Enable (Green)

1 = Ground (Black)
2 = Signal (Red)
3 = 12 Volts (White)
4 = Enable (Green)

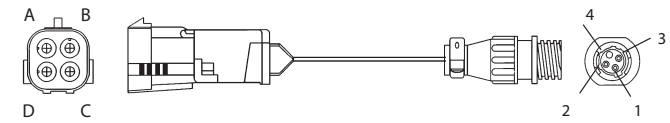
MT-3000, MT-5000, Trak-Net, ST-424 Adapter Cable - P/N 14025



A = Signal (Red)
B = Power (White)
C = Ground (Black)

1 = Ground (Black)
2 = Signal (Red)
3 = 12 Volts (Green)
4 = N/C

Magnavox Adapter Cable - P/N 14029



A = 12 Volts (White)
B = Enable (Green)
C = Signal (Red)
D = Ground (Black)

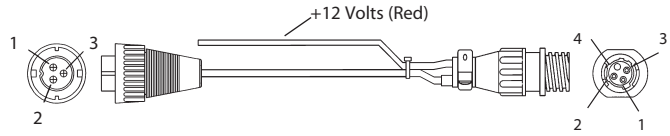
1= Ground (Black)
2 = Signal (Red)
3 = 12 Volts (White)
4 = Enable (Green)

DICKEY-john/Cannon Adapter Cable - P/N 14026

1 = +12 Volts (White)
2 = Ground (Black)
3 = Signal (Red)
4 = Enable (Green)

1 = Ground (Black)
2 = Signal (Red)
3 = 12 Volts (White)
4 = Enable (Green)

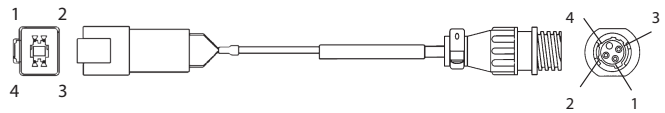
Raven Adapter Cable - P/N 14030



1 = Ground (Red)
2 = Not Used (Black)
3 = Signal (White)

1 = Ground (Red)
2 = Signal (White)
3 = 12 Volts (Red)
4 = N/C

DICKEY-john/Deutsch Adapter Cable - P/N 14028



1 = +12 Volts (White)
2 = Ground (Black)
3 = Signal (Red)
4 = Enable (Green)

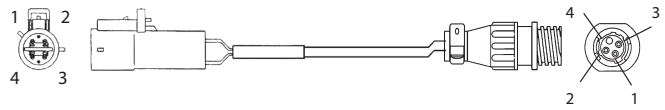
1 = Ground (Black)
2 = Signal (Red)
3 = 12 Volts (White)
4 = Enable (Green)

Spraying Systems Adapter Cable - P/N 14031

A = Power (Green)
B = Signal (Red)
C = Ground (Black)

1 = Ground (Black)
2 = Signal (Red)
3 = 12 Volts (Green)
4 = N/C

DICKEY-john/Ford Adapter Cable - P/N 14039



1 = Ground (Black)
2 = Signal (Red)
3 = +12 Volts (White)
4 = Enable (Green)

1 = Ground (Black)
2 = Signal (Red)
3 = 12 Volts (White)
4 = Enable (Green)

NOTE: The Micro-Trak standard adapter cable, P/N 14019, will work as a DICKEY-john Amp adapter cable.

A = Signal (Red)
B = Power (White)
C = Ground (Black)

1 = Ground (Black)
2 = Signal (Red)
3 = 12 Volts (Green)
4 = N/C