

Belt Scale

Speed Wheel

The belt travel speed wheel is located near the weigh frame and monitors the belt speed. Positive contact must be maintained between the roll and the belt for proper operation. The wheel must be located on a section of the belt in which belt vibration does not add movement to the wheel. The preferable location is directly opposite a conveyor return roll. The speed sensor should never come in contact with material being conveyed along the belt.

The signal generated by the speed wheel is converted by the integrator into a value representing the belt travel distance.



Figure 1. Speed Wheel

Part No.	Description (Quantity)	Qty.
94969	Complete Speed Wheel Assembly	1
96543	Speed Wheel (wheel only)	1
94979	Speed Proximity Sensor	1
94970	Speed Wheel Bracket Assembly (wheel not included)	1
98501	Cabling to integrator	1
94980	U-Bolts	2
21161	Splice Box	1
98501	Expansion Cable	20'
100038	Magnetic Shaft Encoder	1

Table 1. Speed Wheel Assembly Component Part Numbers



Failure to heed may result in serious injury or death.

Take all necessary safety precautions when installing the speed wheel including wearing safety shoes, protective eye wear and using the proper tools.

Do not allow minors or inexperienced persons to operate this unit.

Do not operate without all shields and guards in place.

Do not place fingers into slots or possible pinch points.

Do not use load bearing components worn beyond 5% of the original dimension.

Do not use this product if any of the components are cracked.

Do not exceed the rated load limit of the unit.

Do not make alterations or modifications to the unit.

Do not remove or obscure warning labels.

Keep hands, feet and loose clothing away from moving parts.

Installation

The installation of the speed wheel varies based upon accessibility to the return side of belt, belt speed and distance from the electronic integrator. The following steps describe speed wheel installation; however individual applications may vary.

Proximity Sensor Located on Wheel

1. The wheel speed sensor must be mounted to ride against the inside of the return conveyor belting.
2. Install the wheel bracket assembly to the tail end side of the scale carriage or a fabricated strut. The belt travel should pull the wheel away from the scale carriage.

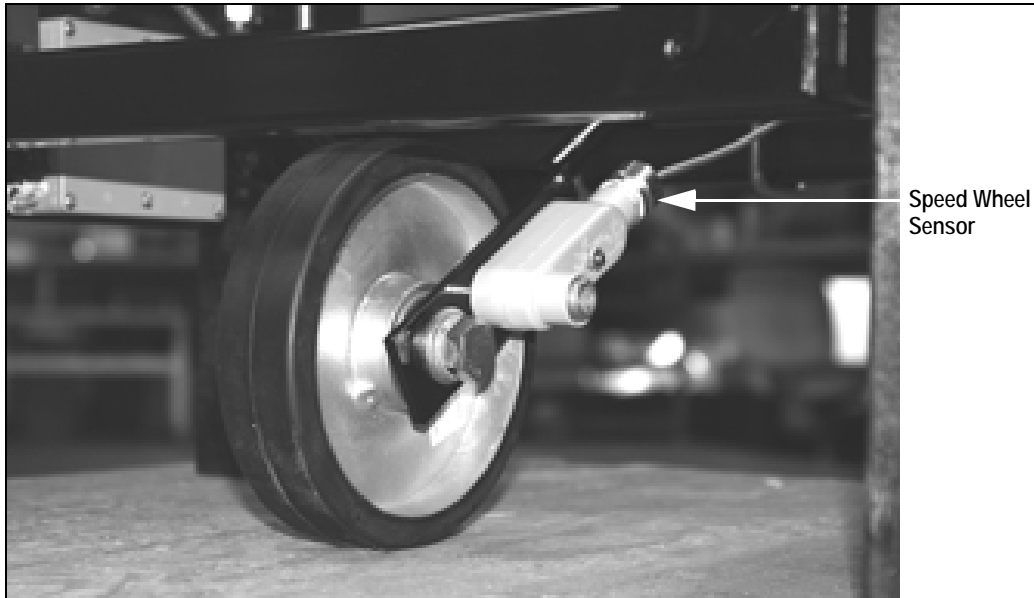


Figure 2. Speed Wheel Sensor

3. Mount the wheel arm to the cross brace closest to the tail of the conveyor. The wheel assembly must be free to move in the vertical direction and must maintain contact with the belt at all times.

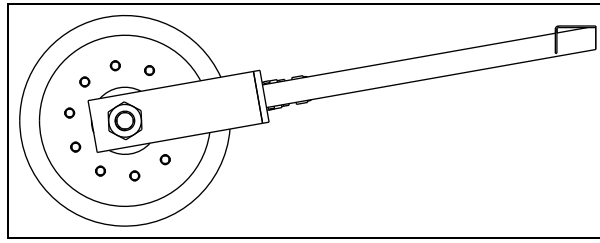


Figure 3. Speed Wheel Assembly

Speed Wheel Wiring

Speed Wheel Wire Color	Function	Pulse Input Card Pin
Brown	+12 V	1
Black	Pulse In	3
Blue	Ground	2

Table 2. Speed Wheel Wiring

Speed Sensor Calibration

See the 920i Integrator Technical Manual (PN 179996) for speed wheel calibration instructions.

Maintenance

Perform the following maintenance steps monthly to keep the speed wheel in good working order.

- Speed wheel — inspect for wear, material buildup, belt wrap and inspect bushings
- Bushings — replace periodically depending on belt use

Part Number	Description
95216	Bushing
98320	Shoulder Bolt

Table 3. Replacement Part Numbers



© Rice Lake Weighing Systems Specifications subject to change without notice.
Rice Lake Weighing Systems is an ISO 9001 registered company.

230 W. Coleman St. • Rice Lake, WI 54868 • USA
U.S. 800-472-6703 • Canada/Mexico 800-321-6703 • International 715-234-9171 • Europe +31 (0)26 472 1319