



GREENTRONICS

RITETILT



Automatic Tilt Controller

Keeps equipment level to improve capacity and precision.

The **RiteTilt** controller is designed for use on a wide variety of equipment that must be maintained in a level position (zero tilt angle) in order to perform well. Typical applications include root crop and vegetable harvesters, and trenching equipment. Without automatic tilt control, the operator must visually check a gauge or indicator and maintain the correct angle on-the-go. The **RiteTilt** controller attached to the machine continuously measures tilt and activates electrical output signals when the tilt angle requires adjustment. The electrical signals control solenoid valves and cylinders or electric actuators to automatically keep the machine level.



Photo at top left: Wheeled Trencher, Buckeye 9200 Magnum by MSK Trencher.

The 9200 Magnum is equipped with the **RiteTilt** controller to allow automatic adjustment of the mast on uneven or sloping ground. Tilting the mast to the correct angle improves precision when burying pipe or cable. Automating this function gives the operator more time to focus on other functions of the machine.

Photo on bottom left: Pull-type tomato harvester, model 190, by Pik Rite.

The 190 harvester is a complex machine that picks tomatoes, removes debris and soil, and often comes equipped with a sorter that automatically grades tomatoes based on color. For all these functions to work well, it is important to maintain an even flow of tomatoes in a single layer. The **RiteTilt** controller automatically maintains the machine in a level position even on sloping ground so that the tomatoes stay evenly distributed on conveyors without rolling into multiple layers.



Photo above shows the **RiteTilt** controller with custom decal on a model 190 Pik Rite harvester.



Features:

- **Semiconductor tilt sensor** has no moving parts and provides long-term reliability.
- **Easily accessible potentiometer** to adjust and set level position.
- **Auto-resetting circuit breaker** protects against short circuits and automatically restores normal operation when the fault is corrected.
- **Protected** against reverse polarity and common power transients.
- **Protection circuits on output relay contacts** absorb inductive energy from solenoids to ensure long relay life.
- **Sealed case with venting** to protect electronics from dirt and moisture.

Steep Hills:

When equipment operates on steep hills, sometimes the leveling cylinders reach their limit. In such instances, the **RiteTilt** will time out and release the solenoid valve to avoid unnecessarily burdening the hydraulic system. While the machine remains on the severe incline, the **RiteTilt** will periodically briefly activate the hydraulics to counter any “sagging” due to leaky valves or seals. As soon as the machine moves off the steep hill, the **RiteTilt** resumes normal operation to maintain a level position.

Accuracy and Stable Operation:

How quickly the machine tilts when the hydraulics are activated depends on many factors, resulting in a wide range of speeds. On a machine with fast response, it can be difficult to maintain an accurate level position because the machine keeps moving right past the level position after the hydraulics are turned off. This can result in a situation where the machine constantly rocks back and forth. The Greentronics **RiteTilt** deals with this problem using a special “anticipation” algorithm that stops the hydraulics before the machine reaches the level position. This algorithm enables the Tilt Controller to maintain a very accurate level position without the danger of generating continuous rocking.

Specifications:

Sensitivity:	+/- 0.5 degrees (typical – can be adjusted for desired response)
Response Time:	Select 1 second or 2 seconds for optimal performance
Activation Time-out:	25 seconds, with 7-second retry each 30 seconds. For single acting cylinders, Lower output time-out can be disabled
Supply Voltage:	+12VDC (+24VDC available)
Outputs:	Lower (retract cylinder) Raise (extend cylinder)
Output Signals:	Normally open, 12VDC when activated
Max. Output current:	4.0A
Connection:	2.4m (8ft) cable connects to controller with weather proof connector
Case:	Impact resistant and flame retardant ABS LxHxD: 120x65x60mm (4.75x2.56x2.36 inches) Gasketed to seal out moisture and dirt Integral mounting holes

NOTE: Many of these specifications can easily be customized for any given application. Please call to discuss your requirements.

Ordering Information

Part #: TC100-2

System includes the **RiteTilt** controller with 8ft detachable cable. Installation not included and to be arranged by purchaser. One year limited warranty, with free technical support via telephone, fax, or email.

Visit **Greentronics.com** for dealer locations, contacts, and more details.

Or call: 519-669-4698 E-mail: info@greentronics.com

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