



WEEDWIPER CONTROLLER

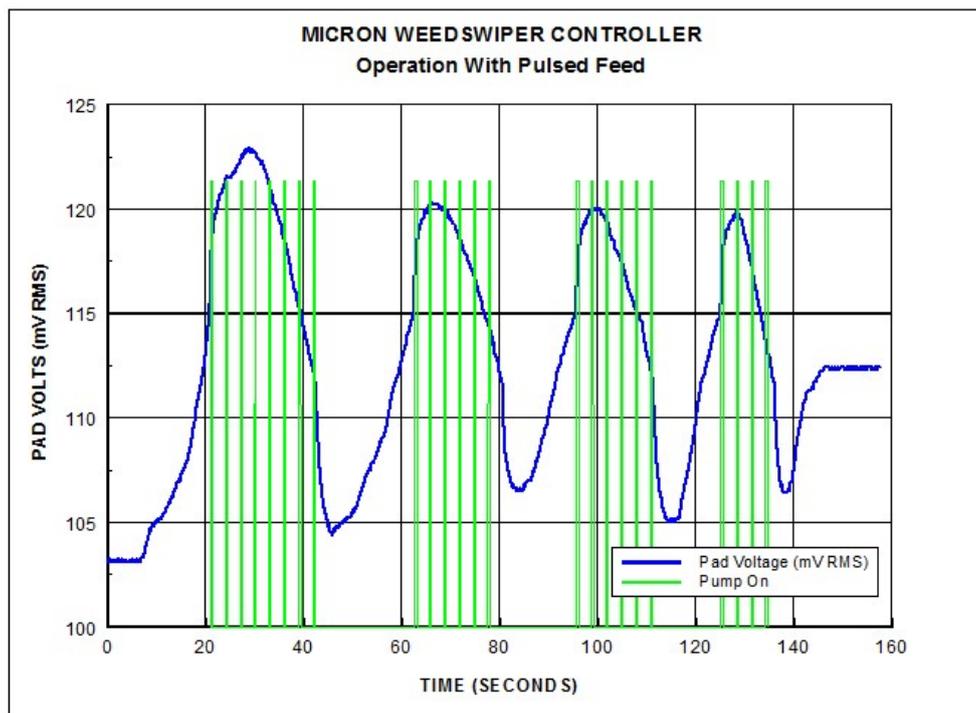
New Version with Pulsed Feed

1.0 Introduction

All WeedWiper controllers sense the loading (wetness) of the pad by measuring the electrical resistance between two sensing electrodes positioned about 60 mm above the lower edge of the pad. When the amount of herbicide in the pad reduces the controller senses the higher resistance and switches on the pump to recharge the pad. The pump is switched off when sufficient herbicide reaches the area between the electrodes and the resistance between them matches the Pad Loading setting on the controller. The point at which the pump switches off must be set such that the pad does not become overloaded and begins to drip.

In practice, there is a time delay between herbicide being pumped into the top edge of the pad and reaching the sensing electrodes. This can result in overshoot as herbicide continues to move down from the top of the pad after the pump has switched off.

The new controller minimises overshoot by supplying herbicide to the pad in a series of pulses several seconds apart. These pulses are delivered by cycling the pump on and off until the loading of the pad between the sensing electrodes reaches the pre-set level. Once the required loading is achieved the pulsing stops until the controller senses that the pad has reached its minimum loading and the cycle repeats. See the graph below for the principle of operation.



2.0 Installation

The pulsed controller uses the same connector as the standard unit and is installed as a direct replacement.

3.0 Operation

The pulsed controller is adjusted and used in the same way as the standard unit. However, the pump will pulse on and off as herbicide is delivered to the pad and the time for the pad to reach the required loading will be slightly longer than with the standard controller.

The pump will pulse on and off every few seconds whilst feeding the pad. This must not be confused with the cycling of the controller as the pads become dry and are recharged in operation. These cycles typically occur several minutes apart (or longer with sparse weeds).

Adjusting the controller to the Max (Cont Pump) position causes the pump to run continuously without pulsing. This position should be used for flushing of the machine as with the standard controller.

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