



**Highway Maintenance Manual**  
**Chapter 06 Winter Maintenance**  
**Section 20 Snow Removal Materials**  
**Subject 60 Ground Speed Controllers**

**Bureau of Highway Maintenance**  
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### ***1.0 Ground Speed Controllers***

Since 1995, ground speed controllers have been shown to reduce salt usage by controlling the amount of salt spread according to the speed of the patrol truck. These controllers can also provide accurate data on salt usage. Controlling salt applications in this manner can also help limit the amount of chlorides that get into the environment. Excessive salt use is wasteful and can lead to degradation of plant species and water quality in land and water bodies that are adjacent to the roadways. According to a survey done at the end 1998/1999 winter season, 56 of 72 (78%) Wisconsin counties were using ground speed controllers. Ground speed controllers were being used on 550 of 710 (77%) of the state winter operations sections.

Recent updates in ground speed controller technology have made ground speed controllers more reliable than ever before. Better electronics and connections now provide systems that are less affected by chlorides. *[The 1999 survey pointed out that older controllers had problems with wire corrosion, connector corrosion, loss of computer memory, and hydraulic valves sticking due to cold temperatures. These issues were brought up to the manufactures and, according to the participants in the survey, have been corrected.]*

Therefore, all new county trucks that are dedicated to state winter maintenance sections and are purchased after October 1, 2002 for placement on state maintenance sections should be equipped with ground speed controllers. Trucks currently equipped with ground speed controllers should continue to be equipped with ground speed controllers. Under no circumstances should a ground speed controller be removed from a state winter maintenance section truck and not be repaired, replaced, or upgraded with a newer unit.

All trucks on state winter maintenance sections should be equipped with ground speed controllers by November 1, 2010.