



## Technical Service Bulletin

**SUBJECT:** No requirement to turn off Telma automatic foot control during slippery conditions

**Products Affected:** All

**Effective Date:** 16aug13

Telma is committed to a philosophy of continuous improvement as a way of enhancing the end-user's experience with our product.

Over the years there have been questions from time to time asking whether there is a requirement to install a switch to be able to manually turn off the Telma system under slippery conditions.

All Telma control systems on ABS equipped vehicles are integrated with the vehicle ABS, activate in 4 progressive stages of up to 25%, 50%, 75%, and 100% depending on driver braking effort, and have progressive re-activation in one second intervals to avoid a repeat ABS event.

**A driver controlled manual Telma on/off switch is redundant to this system and therefore is not required.**

ABS and vehicle manufacturers require that a retarder system must not interfere with the operation of the ABS when controlling a wheel slip condition and that in order to do this the retarder must de-activate within 200msecs (2/10ths of a second) and re-engage progressively, so as to not generate new ABS events. The Telma electromagnetic system de-activates in 200msecs (2/10ths of a second) or less when turned off and re-engages progressively. Therefore the Telma system is fully compliant with the requirement from the ABS and vehicle manufacturers.

Other types of retarder systems require a manual switch to turn off during slippery conditions for the following reasons.

- 1) Hydraulic retarders require approximately 0.5 seconds to become ineffective which does not comply with ABS manufacturers requirements.
- 2) Engine brakes do not activate or re-activate progressively so may initiate multiple ABS events if used under slippery conditions.
- 3) Exhaust Brakes are very slow to activate and de-activate (1 ½ to 2 seconds) and therefore do not meet ABS manufacturers requirements for compatibility.

Because the Telma is fully integrated and compatible, the ABS automatically controls/turns off the Telma system during an ABS event, whenever necessary, to avoid any interference between the retarder and ABS. Also, if the driver were to forget to turn the Telma on or forget to turn it back on, the braking and safety benefits of the Telma system would not be available when needed.