

# Highway Care

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August 2008

Letter to all LMCC Users  
Street  
Town  
Postcode

For the attention of the Health & Safety Manager

Dear Sirs

## AUTOMATIC IMPACT BRAKE (AIB) – ACTION REQUIRED

Thank you for your attention to our urgent technical update dated 28<sup>th</sup> February 2008. I am pleased to report that we have come across no further instances in which the AIB has been switched to 'active' by the action of other switches. However, we ask you to remain vigilant to this possibility and to inform us if you have any concerns.

Since February, we have continually reviewed the situation and have commissioned further, detailed testing of the system.

The AIB system, and the latching relay in particular, fulfil the standards required by ISO7637. You will recall however from our February letter, that we have identified that the latching relay is susceptible to certain transient electrical voltages. These transient electrical voltages are outwith the parameters of the ISO7637 testing procedure.

Prior to November 2004, there were two 'switches' that both needed to be in the 'ON' position in order that the AIB could be in 'standby'. The first is on the cab control box and the second is a down-limit switch at the rear of the vehicle that would only turn to 'ON' when the crash cushion is deployed. An accident occurred in 2004, in which the crash cushion was physically torn from the back of a block vehicle. This resulted in the power being severed and the AIB switched 'OFF' immediately after activation allowing the block vehicle to roll forward a considerable distance. I stress that this is a very rare occurrence. To guard against this ever happening again, a 'Latching-relay' system was devised, still requiring that the crash cushion was deployed (and the down-limit switch therefore switched to 'ON'), as well as the cab switch.



As we indicated in our February letter, if the operator has inadvertently left the main switch in the cab, in the 'ON' position, the AIB system may, as a result of these transient electrical voltages latch to 'standby' even though the crash cushion is not deployed.

We are currently working on a method of rendering the latching relay invulnerable to such transients. In the meantime as this relay was originally introduced only to guard against the very rare occurrence of the crash cushion detaching (thereby severing the power supply), we now consider that it would be prudent to by-pass it, as to do so poses a lesser potential risk.

This can easily be achieved by asking a competent automotive electrician to follow simple instructions and diagrams that will be provided. We ask you to arrange to have this work carried out at your earliest convenience and if you prefer, you can bring the vehicle to us at Sittingbourne or Leominster, by appointment, to have the work completed free of charge. We do understand that this request will involve you in at least a degree of inconvenience and we would like to make recompense for this by offering you a free system upgrade, as described below.

The AIB system can only activate when the main switch in the cab control box is in the 'ON' position. Normally, that is only the case when the crash cushion is working as intended, at very low-speed and the driver and passengers are correctly seated and restrained. However, there could be an occasion on which the operative has forgotten to switch 'OFF' as instructed so we have devised a further indicator as to the state of that switch. This comprises a large, red LED that is positioned directly in the line-of-sight of the driver and is illuminated whenever the main AIB switch is in the 'ON' position. We would be very pleased to offer these kits to you without charge. Please will you respond to us in writing (e-mail or fax are fine), stating how many kits you would like and what vehicle registrations they are to be fitted to. Once again, if you prefer to entrust this work to Highway Care, we will be happy to fit these by appointment at either depot. Fitting is expected to take around an hour and will be charged at £49.00 plus V.A.T. if you choose this option.

We would like to thank all of our customers again for your immediate attention to this important matter.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'David Stamp', written in a cursive style.

David Stamp  
Director