

# START GUARDS



AVSG12SG2 12V  
AVSG24SG2 24V



With  
speech  
alarm

## Stop your tail lift from flattening your battery!

The Amber Valley Start Guard gives peace of mind to vehicle fleet operators. It safeguards the voltage in the starting battery by eliminating the possibility of a tail lift, passenger lift or double deck trailer lift, discharging the starting battery to a level where the vehicle is left stranded.

The Start Guard constantly monitors the battery voltage. If the voltage drops below a predetermined level (sufficient to start the engine) the unit will tell the operator by means of a buzzer or a real speech alarm that they must restart the engine. If they do not restart the engine, the unit will cut the power to the tail lift. When the engine is restarted, the power is automatically restored when the battery reaches a predetermined voltage.

- Latest generation battery protection
- Quick and easy to install
- Save costs on vehicle down time and flat batteries
- "Battery low, please start engine" message or buzzer
- Available in 12V and 24V
- Operating temperature -40°C – 120°C
- High peak current capability to 1800A
- Continuous rating to 190A
- Shock resistant to 40G
- Automatic battery monitoring
- Double latching technology
- Solid State Electronics completely encapsulated against water, acid, oil and dust
- OEM specified – 12V and 24V

## Technical specification

Part number	Cut off voltage	Restart voltage	Quiescent current	Warning current (max)	Delay to warning	Warning duration	Delay to off from warning	Buzzer	Spoken warning
AVSG12SG2	11.7V	13.0V	3.0mA	2.5A	1 min	7 secs	55 secs		✓
AVSG24SG2	23.5V	26.0V	3.0mA	2.5A	1 min	7 secs	55 secs		✓



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## Battery Guard Information

For situations and applications where low voltage abuse is a risk, an Amber Valley battery guard system can be mounted in-line on the power cable from the battery to the supply of the lift. This device constantly monitors the battery voltage.

- If the voltage drops below 23.1V, the unit will tell the operator by means of an audible warning buzzer that the engine must be re-started.
- If the operator doesn't re-start the engine, the unit will cut off the power to the tail lift after 30 sec.
- Once the vehicle has been restarted, and the input voltage exceeds 26.0V, the unit will re-set and the tail lift can be used again.

The battery guard

- Is quick and easy to install
- Saves cost on vehicle down time, flat batteries, and component failure on the tail lift caused by this abuse
- Is available in 12V and 24V
- Operates at  $-40^{\circ}\text{C}$  to  $120^{\circ}\text{C}$
- Has a peak current capability of 1800A, and a continuous rating of 190A
- Is completely encapsulated against water, acid, oil and dust.

## Fitting Instructions

Locate the main +ve cable supplying power to the tail lift. Mount the battery guard in a suitable location, close to the power cable (see note 1).

Cut the power lead and terminate both ends with a suitable ring terminal.

Connect the power cable from the battery to the "+ve in" connector on the battery guard.

Then connect the power cable feeding the tail lift to the "+ve out" connector.

Connect the black lead to a good earth point in the power pack.

Connect the white wire to the +ve side of a led (if visual warning is being used).

Connect the audible warning unit.

If this unit is fitted externally, Amber Valley recommends the fitting of rubber boots over the connections to this unit, along with a protective grease (both not supplied).

Consideration must be given, when externally mounting this device, to the location & possibly the provision of a suitable enclosure to minimise water ingress or environmental damage.

