



1 Introduction

Introducing the new Sargent STINGER 350 series modular alarm system.

Based on new technology and a two-year design process, the Stinger 350 incorporates ideas and feedback from users and experts throughout the caravan and security industries.

Designed to be modular, the system can be expanded by a forthcoming range of wired and wireless accessories.

To ensure your Stinger 350 system is operated correctly, please read all sections of these instructions before attempting to use the alarm. If you are unsure of any content, please contact your supplier in the first instance or the manufacturer direct.

2 Operation

Using the key fob

Each Stinger 350 is supplied with two key fob style radio controllers, which are used to operate the alarm system. Each key fob has four buttons which can be used as follows;



LED Torch button

Press and hold the button to use the torch for night time convenience



Arm / Disarm button

Press and release the button to arm the alarm (one beep) Press and release the button to disarm the alarm (two short beeps). To arm the alarm without the PIR movement sensor (if you leave pets inside etc) press and hold the arm button and release after you hear one beep followed by two beeps. To arm the alarm in silent mode, see section 3.



Awning Light button

Press and release the button to turn the awning light on or off (note: awning light control is an optional feature not present in all caravan models)



Programming Mode button

Press and hold the button for 10 seconds to access the 3 programming modes, which are indicated by series of long beeps, as follows:

One long beep - Tilt sensor adjustment

Press the arm/disarm button to select the required setting. 1 beep = High sensitivity. 2 beeps = standard sensitivity (default). 3 beeps = low sensitivity for windy conditions. Press the program mode button to move to the next setting.

Two long beeps - Beeper volume adjustment

Press the arm/disarm button to cycle through the 7 available volume levels. When you are happy with the selected volume, press the program mode button to move to the next setting.

Three long beeps - PIR movement sensor adjustment

Press the arm/disarm button to select the required setting / pulse count. 1 beep = high sensitivity for hot environments. 2 beeps = standard sensitivity (default). 3 beeps = low sensitivity for hostile / cold environments.

Press the program mode button again to exit programming mode, which is indicated by one extra-long beep.

The PIR internal movement sensor

The Stinger 350 comes complete with a 120° Passive Infra-Red (PIR) internal movement sensor that detects body movement within the vehicle. With the system disarmed a green LED within the PIR will indicate movement detection.



If you are leaving pets within the vehicle the system should be armed without the PIR sensor active (see key fob arm / disarm section) to prevent your pet from triggering the alarm.

Please be aware that extremes of temperature can affect the operation of the PIR. With temperatures above 30 deg C the PIR's ability to detect a human body is reduced, and therefore the sensitivity can be adjusted to improve detection. With temperatures below zero the PIR's sensitivity will increase, and therefore the sensitivity can be reduced to eliminate false triggering.

Please ensure roof light blinds are closed if sunlight could shine directly onto the PIR. If heating vents are located near the PIR please ensure these are closed to prevent cold draughts affecting the PIR.

The tilt sensor

The Stinger 350 incorporates a new electronic tilt and motion sensor with automatic calibration and easy sensitivity adjustment from the key fob or LCD screen. This feature provides excellent tilt detection with no moving parts.



The tilt sensor works automatically and does not need adjustment for normal use even if you park on a steep incline. The sensitivity of the sensor can be adjusted as described in the key fob programming section and the LCD menu section.

Awning light control

When the Stinger 350 alarm system is armed or disarmed the awning light will be activated for a period of one minute to provide illumination whilst entering or exiting the caravan. The awning light can be turned off during this period by pressing the awning light button on the key fob if required.

Note: awning light control is an optional feature not present in all caravan models.

The awning light can be turned on or off at any time by pressing and releasing the awning light button.

Marker / tail lights flashing

When the Stinger 350 alarm system is armed or disarmed the marker / tail lights will flash to indicate the armed or disarmed state of the alarm.

One flash indicates armed and two flashes indicates disarmed. These flashes match the arm / disarm beeps described earlier.

When the alarm is triggered the marker / tail lights will flash for 2 minutes.

Note: marker / tail light control is an optional feature not present in all caravan models, and will only operate when a leisure battery is fitted and is supplying power to the alarm system.

3 The base unit LCD screen

The Stinger 350 incorporates an LCD screen in the system base unit. This screen can be used to view system information, change system settings and learn new devices or erase old devices by using the navigation buttons adjacent to the LCD screen.

Overview

Sargent AS350 Vx ● MENU The LCD screen has two small control buttons adjacent to the screen which can be used to navigate the menu and to change settings.
 ● SELECT

● MENU The top (MENU) button is used to move through the menu items. When the last menu item is reached, pressing the button again will return to the first menu item.
 ● SELECT The bottom (SELECT) button is used to adjust any settings. Note: this button is shown in red within these instructions.

● MENU To change between BASIC and ADVANCED menu modes (and vice versa), press and hold the TOP button for 5 seconds.

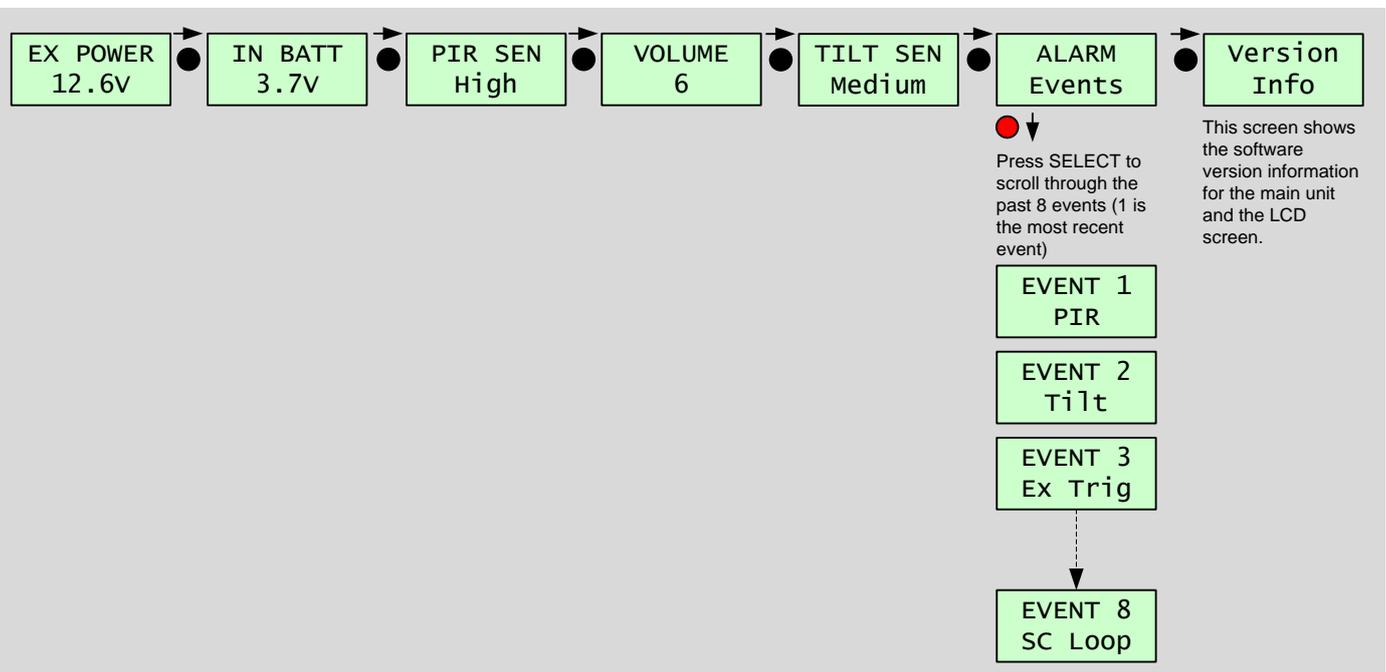
Arm / disarm

During arming the display information changes to show the arming progress.

Normal mode	Silent mode	When in basic mode and the alarm is armed the top & bottom buttons will be disabled and the display will show one of the screens shown left. When in advanced mode and the alarm is armed the top & bottom buttons will be disabled BUT the screen will remain on the selected menu item and the data on screen will be active for diagnostic purposes. The alarm can also be armed in silent mode, which means the siren will not operate if the alarm is triggered. This can be useful on storage sites that do not allow audible alarms to be set. See the advanced settings section below for further details.
ALARM Arming	Silent Arming	
ALARM Armed	Silent Armed	
ALARM Disarmed	ALARM Disarmed	

Basic user menu / information

The basic user menu contains system information, including supply & battery voltages, PIR and tilt sensor sensitivity setting, beeper volume and event & version information.



Advanced user settings / information

The advanced user menu allows settings to be changed / adjusted, devices (like key fobs & wireless PIR's) to be added (learnt) or erased, and more detailed system information is available.

<p>SET TO Silent</p>	<p>SET PIR Medium</p>	<p>SET VOL 3</p>	<p>SET TILT Low</p>	<p>SET IND Arm</p>	<p>MEMORY 11000000</p>
<p>Press SELECT to change from the default setting of off to on. This feature resets to off when the system is disarmed using the key fob.</p>	<p>Press SELECT to change from the default setting of medium to high then then low. Repeated pressing will cycle through the settings.</p>	<p>Press SELECT to change the volume setting. Each press will increment the value by 1. When the limit of 7 is reached the setting will start again from 1.</p>	<p>Press SELECT to change from the default setting of medium to high then then low. Repeated pressing will cycle through the settings.</p>	<p>Press SELECT to change from default Arm setting. Arm = indicator output is low when alarm armed. Alarm = indicator output is low when alarm siren is active. Status = indicator output follows the arm / disarm beeps. All = indicator output is low all the time. None = indicator output is high (switched off).</p>	<p>Memory positions 1-4 are for the key fobs. Memory positions 5-8 are for accessories. A 1 indicates a used (active) position. A 0 indicates a free position. So 11000000 indicates 2 key fobs, no accessories.</p>

Repeated pressing will cycle through the settings.

<p>LEARNFOB <Start></p>	<p>LEARNACC <Start></p>	<p>ERASEALL <Start></p>	<p>INPUTS 01010101</p>	<p>OUTPUTS 01010101</p>
<p>Press SELECT to start the fob learning process.</p>	<p>Press SELECT to start the accessory learning process.</p>	<p>Press SELECT to start the erase process.</p>	<p>This menu item shows the status of the alarm inputs. Working from the left;</p>	<p>This menu item shows the status of the alarm outputs. Working from the left;</p>
<p>LEARNING PressFob</p>	<p>LEARNING Trig Acc</p>	<p>Press select To Erase</p>	<p>1- PIR (1=detecting) 2- TILT (1=detecting) 3- Security loop (1=open) 4- Neg trigger input 5- Pos trigger input 6- Spare 7- Spare 8- Spare</p>	<p>1- Beeper active 2- Siren active 3- Alarm output 4- Arm output (1 =armed) 5- Fault output 6- Awning output 7- Left marker light 8- Right marker light</p>
<p>LEARN Done</p>	<p>LEARN Done</p>	<p>ERASE Done</p>		
	<p>If the learning process fails for any reason, then 'LEARN Fail' should be shown. Display to remain on for 3 seconds and then return to the current menu item.</p>	<p>Press SELECT to confirm the erase process.</p>		
		<p>If the learning process fails for any reason, then 'LEARN Fail' should be shown. Display to remain on for 3 seconds and then return to the current menu item.</p>		

4 Alarm siren

The Stinger 350 contains a sounder unit that provides the loud alarm siren and the volume adjustable beeper sound.

When the alarm is triggered the siren will sound for 2 minutes. Following the 2-minute period the alarm will then deactivate for 15 seconds and then rearm.

The alarm siren can be turned off at any point by pressing the key fob arm/disarm button.

When the alarm is disarmed the beeper will sound two beeps to confirm the disarm. If the alarm has been triggered during the armed period the beeper will sound three beeps if the PIR triggered the alarm, four beeps if the tilt sensor caused the alarm and five beeps if the PIR security loop or accessory sensor caused the alarm. If you hear multiple pips (short beeps) when you disarm the alarm, this indicates that the internal backup battery is low and therefore should be charged.

The beeper volume can be adjusted using the key fob programming feature or by using the LCD screen on the system base unit.

5 Batteries

Key fob batteries

The Stinger 350 key fob controllers use two lithium button cells (CR 2032) in each key fob. Please note that excessive use of the LED torch will reduce the life of the batteries considerably.

To replace the batteries, firstly remove the four cross head screws from the underside of the fob, then pull apart the two halves of the fob. Remove the used batteries from the lower half of the case, then insert the new batteries in the same manner, noting that the battery positive (+) faces away from the green circuit board. Now reassemble the fob casing and refit the screws, taking care not to over tighten them.

System base unit battery

The Stinger 350 system unit uses a special 3.7V 15.6Ah lithium battery pack that supplies backup battery power to the system should the supply from the leisure battery fail or be disconnected. It is recommended that the alarm system is permanently connected to a 12V supply. When fully charged the battery will provide approximately 6 months stand-alone operation, depending on temperature conditions. It is recommended that this battery pack is replaced every 3 years.

If the battery becomes discharged this will be indicated by a flashing red LED in the PIR and a periodic beep from the beeper. Note: see section 5 regarding beeps when disarming. Note: the internal battery voltage can also be viewed on the base unit LCD screen.

Before placing your caravan in storage please ensure the caravan has had a fully charged leisure battery fitted or the mains charger is switched on for at least 7 days prior to storage to ensure the internal backup battery is fully charged. It is recommended that a leisure battery remains connected to the caravan during storage.

Always dispose of old batteries in accordance with local regulations.

6 Installation

The Stinger 350 system is installed by many caravan manufacturers as standard equipment and can also be installed by specialist dealers / installers. If you require installation instructions please contact our service desk (see section below).

If you are adding other electrical equipment to your caravan, such as motor movers, vehicle trackers or other radio-controlled equipment, please ensure that the equipment is positioned at least 500mm away from the Stinger 350 base unit and PIR sensor.

7 Spare parts & service

The Stinger 350 system is supplied with two key fob controllers as standard, but can accommodate up to four controllers per system. Extra fobs can be purchased from your supplier or direct from the manufacturer, and can be added to the system by following a simple procedure.

For accessories, interface harnesses, installation documentation, spare parts, local supplier contact details or other service information please contact: Sargent Electrical Services Ltd. service desk on 01482 678981 during normal office hours or email our support team, support@sargentltd.co.uk

Further technical information is also available at www.sargentltd.co.uk

For future reference it may be useful to note your alarm system serial number below, which can be found on the sticker attached to the system base unit.

Serial number:

8 System specification

System base unit

- Supply voltage 6 to 15v DC
- Supply current 500mA max 7mA typical
- Operating temperature -20 to +40 deg Celsius
- Battery capacity 15.6Ah at 3.7V
- Siren output 110dB +/- 10% @ 1M
- Comprehensive interface connector (details available on request)

PIR movement sensor

- Range 120 deg x 6M

Key fob controller

- Range 6M typical
- Battery 2x CR2032 lithium button cell
- Typical battery life 1 year

