

# Epilepsy and Seizure Support



Epilepsy monitors and alarms  
to detect the symptoms of a seizure





## Contents

Background to Alert-iT	3
Our technology	4
ISO Certification	5
How we began	6
Ep-iT Range	14
Get in touch	16

## Who are Alert-it?

Alert-iT is one of the UK's leading innovators and forward thinking manufacturer specialising in the design, production, distribution and support of care alarm systems across the country. We pride ourselves on being the UK's foremost provider of plesio-care technology. Alert-it has defined this as: 'Technology delivery between the carer and user'. Plesio-care releases carers from constant supervision providing confidence with the monitoring ability of our system. Dignity of user is enhanced encouraging independence. Our cost effective care solutions are provided to domestic homes, care homes and healthcare manufacturers. Alert-it care solutions are delivered through advanced scientific, research and development methods.

Alert-it provide continuous monitoring without constant or intrusive caring presence, promoting better confidence for carers and dignity to the users; dramatically improving the experience and quality of life for those being cared for.

Alert-iT's range of products can be used to support carers of individuals with:





## Our Technology

All our products are designed, produced and manufactured in-house by skilled engineers and scientists who are constantly striving to develop increasingly effective solutions for carers.

They aim to deliver highly innovative solutions through their advanced research and development methods whilst maintaining their promise of stress free caring.

The 'failsafe' radio pagers that our systems are built around have also been proven to be amongst the most effective and reliable.

Alert-it offers:

- Advice
- Installation Assistance
- Servicing
- Repairs
- After Sales Support

## Why use Assistive Technology?

Assistive technology or 'AT' is a piece of technological equipment that maintains and improves the daily lives of individuals with a variety of healthcare conditions.

It can be the ideal solution when monitoring risks and activities of vulnerable people who wish to manage their independence and take control of decisions made about their lives.

AT can support healthcare in a variety of ways depending on how technology is needed or used. Plesio-care is 'near-care' as opposed to 'telecare'. That is, technology providing feedback directly to the carer instead of being mediated through a support center.

Our products have unique differences that suits local care management (such as Failsafe radio rather than just Class 1)

## ISO Certification

Alert-it Care Alarms have obtained the highly regarded ISO accreditation. Displaying the teams continued ability to work to a high standard, we were able to obtain this accreditation in just two months! Not only is this fantastic news for the whole team but for the continued reassurance in all our products for you, our customers.

## World Class Standards

These documents, specified to a range of industries, provide requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose.

Not only is this certificate great news for us but fantastic for you too. Since the certificate is only obtained when high standards are met you can rest assured that the products your purchase from Alert-it are safe, reliable and of great quality. Access to health services, quality care and safe medical practices and equipment is important to people everywhere. Therefore the standards to protect the health and safety of patients and healthcare providers is of utmost importance.

Our aim is to reduce the stress of caring for individuals with a wide range of health conditions such as:



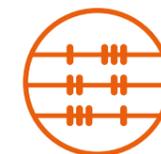
Incontinence



Epilepsy



Risk of Falls



Learning Difficulties



Dementia



Autism

# How we began

Alert-it products have a proven track record of excellence outperforming many similar products.

In a recent Alert-it survey 100% of respondents would recommend Assistive Technology

We are the UK's foremost provider of Plesiocare technology

Socials Aids

Alert-it Care Alarms are social aids designed and manufactured in accordance with 93/42/EEC as Class 1 Medical Devices. They are intended to improve, but not replace, the vigilance of carers to distressing side-effects of various diseases, such as Epilepsy and Dementia. They do not monitor vital physiological processes and should not be expected to diagnose any disease or predict the onset of any symptoms.



## From the beginning...

Based in Leicester, Alert-it was established in 1992 after our founder was approached by a concerned mother looking for a device that could alert to her daughters night-time seizures.

With a sincere passion for supporting families coping with severe and stressful medical problems; the design of a nocturnal bed sensor capable of

detecting movement associated with epileptic seizures was born. We grew from strength to strength. Our success story for a cost effective solution of a robust and reliable product was locally acknowledged and as a result featured on the BBC One East Midlands Today (2010).

Since then the company has grown from strength to strength developing increasingly more sophisticated systems, widening the scope of technology to encompass a greater field of care solutions providing peace of mind for all both young and old, evidenced by our ISO accreditation.

## Building on the success

The dedicated and caring staff at Alert-iT have contributed to building on the success and provided plesio-care monitoring of the highest standard to support carers assisting those with Epilepsy, Dementia, Incontinence, Falls and other conditions.

They deal with equal enthusiasm in supporting mums & dads, our large care home and professional carers and the major telesales providers, knowing that in the end we are helping create better life styles for all.

## Where we are today

With over 20 years' experience in innovation and manufacture of monitors and alarms, Alert-it have now evolved into the UK's foremost provider of Plesio-care technology, which can help reduce the stress of caring for individuals with a wide range of needs; especially those with epilepsy.

Through Plesio-care we believe our products can aid carers on a day to day basis and dramatically improve the experience and quality of life for those being cared for.



## Our range of epilepsy monitors

### Companion Mini

The Companion Mini is the latest addition to our fantastic range of epilepsy monitors and alarms. The digital movement sensor is our most discrete system yet, and can be applied in some of the most challenging situations when supporting tonic – clonic seizures

The Companion Mini is able to identify seizure induced movements whilst ignoring sleep activities before alerting via the Alert-IT Safelink Plesio pager



### Companion Mini Pro

Using the same unique sensing technology of the companion mini, the Pro is designed to work with P137 range of the Alert-IT pager in a Professional / care environment where a number of Alert-IT devices may be required. With a remote reset button (to be installed as near to the user as possible) the Pro can only be reset if presentation of the seizure has stopped and the carer has attended by pressing the reset button.

### Easy to install, simple to test.

The Companion Mini is designed to be placed and secured between the bed base and the mattress.

The first cable free, digital system has been designed to provide a singular solution to support individuals with Epilepsy. With the subtraction of wires associated with other monitors the user is able to freely transport the device with them; whether for nights away or to take on holiday.

### Key Features of the Companion Mini:

- Long Lasting Battery – The Companion Mini is the first battery powered monitor boasting a life of at least 1 year.
- Discrete Size – Able to fit in the palm of your hand the monitor is ideal for travelling.
- Casing – The Companion mini has been designed with a Biomaster coated plastic case which robust and tamper proof.
- Pager – The Companion Mini comes complete with a pager which lasts approximately 3 days but can still be in use when charging.
- A USB cable to link your monitor to a specialised computer programme supplied free of charge is supplied for initial programming.
- Fail safe radio with a 450 metre range
- Ultra-sensitive 1mG movement sensor
- 3 year warranty



## Our range of epilepsy monitors

### Companion

The Companion Monitor is an effective solution for supporting tonic/clonic seizures as well as a variety of other situations resulting in movement, sound, vomiting or incontinence and bed leaving.

Designed with high performance sensors the monitor not only identifies spasm induced movements but has the ability to ignore usual sleeping activities, resulting in false alarms. The unique sound filtering can pick up the slightest noises even if a radio or TV is on. The current model has seen development over 25 year and has sold more than 10,000 units the Companion has proven it effectiveness. Its user friendly, simple to set up, and easily adjustable to suit the individual user & their specific needs.

The under mattress bed movement sensor is proven as one of the most sensitive on the market maximising alarm reliability.

Additionally many monitors have been programmed to order with special profiles making the system unique to the user.

The Companion can totally integrate with Nurse call systems and any Telecare platforms

### Suitability and key features:

- The companion is ideal for both professional and domestic use, with children and adults alike.
- Suitable for most types of beds including profiling beds as well as all mattress types including airflow.
- Programmable Bed Vacation setting
- Alert-IT's unique Fail safe radio for added piece of mind, monitors battery status and that you are always in radio range: up to 450 metre.
- Sigh detection & wired versions available
- Rechargeable battery back-up (15 hour life)
- Adjustable to isolate normal bed movement but respond to seizure activity
- External Microphone & Moisture Sensing Sheets (sold separately)
- 3 year warranty and lifetime support



## Our range of epilepsy monitors

### Guardian

The Guardian Monitor is our most advanced system and can be applied in some of the most demanding situations when supporting tonic/clonic seizures and SUDEP. Careful design ensures high

performance sensors to monitor bed movement, incontinence, vomiting, bed vacation and sounds.

The movement detector, which has the capability of supporting those with both tonic/clonic and clonic only seizures, will also continue to monitor shallow bed movements. Measuring movements which occur due to breathing and muscle activity the Guardian Monitor will sound an alarm if these movements should cease supporting the risk of SUDEP

A sensor is placed under the mattress which constantly monitors movements.

Mainly used in professional care environments, respite, & education facilities the Guardian Monitor is highly adjustable in operation. Suitably for both adults & children the Guardian is equally ideal for domestic use where you might see complex seizure patterns.

### Suitability and key features:

- The Guardian can totally integrate with Nurse call systems and any Telecare platforms
- Suitable for most types of beds including profiling beds
- Programmable Bed Vacation setting
- Alert-IT's unique Fail safe radio for added piece of mind, monitors battery status and that you are always in radio range: up to 450 metre.
- Wired versions available
- Rechargeable battery back-up (15 hour life)
- Adjustable to isolate normal bed movement but respond to seizure activity
- Internal microphone
- External Microphone & Moisture Sensing Sheets (sold separately)
- 3 year warranty and lifetime support

# Epilepsy Flow Chart



# Selection of suitable Nocturnal Seizure Support Monitor

Below is a list of the typical symptoms associated with an Epileptic Seizure. Depending on the combination of symptoms one or more sensors may be needed to increase the certainty of detecting the condition.

If there is one symptom which is always observed, the one sensor in the list which meets that need should be used if there are multiple possible symptoms, then note all the sensors required.

Use the product choice table provided (Table 1) to indicate the right monitor solution or combination required

For Tonic/Clonic (shaking seizures)	
If so violent that the user can be thrown out of bed	1 and add sensor 3
Full body jerking which makes the bed move or creak	1
Limited body jerks that make the mattress move	1
Limited single limb movements which hardly move the mattress	1 may be suitable on top of the mattress (test to check suitability)
No movement	1 not suitable

For Tonic seizures (Status Epilepticus)	
If the user become rigid with little sign of movement	4
If the user become rigid with fast tremors	4

Are you concerned about SUDEP	
If the user risks showing no movements	4

Sound	
If the user make a continuous series of sounds during a seizure (clicking, grunting, gasping or other repeated noises which do not occur normally)?	5

Vomiting	
At the start of the seizure	2
At the end of the seizure	Use 2 as a second sensor, if required
Not at all	2 not suitable

Bed Vacation	
If the user is at risk, should they leave the bed unaided	3 set for instant alarm
If they are likely to have a seizure while out of bed and they would accept a warning sound to prompt them back to bed	3 set for delay with alert
If they are likely to have a seizure while out of bed and would be upset by a warning sound to prompt them back to bed	3 set for delay with no alert
If they are infrequently likely to have a seizure while out of bed, and they are not likely to be in danger	3 but not essential
If they are normally safe while out of bed	3 not needed

## Product Choice (Table 1)

From the above symptom list, the selection of the appropriate system can be made from the following table of options.

Wired option to link to existing nurse call systems are available

	1 Fast Movement	2 Enuresis	3 <sup>1</sup> Bed Vacation	4 Shallow Movement	5 Sound
R1026A Companion	✓		✓		✓
R1026B Companion	✓	✓	✓		
R1016A Guardian	✓	✓	✓	✓	✓
S1043A Companion Mini	✓				

## Solutions, Products to include Plesio pager

	1 Fast Movement	2 Enuresis	3 <sup>1</sup> Bed Vacation	4 Shallow Movement	5 Sound
S1026C Companion	✓		✓		✓
S1026D Companion	✓	✓	✓		
S1020B Guardian	✓	✓	✓	✓	✓
S1043A Companion Mini	✓				

For more information please see our solution Catalogue available at [www.Alert-it.co.uk](http://www.Alert-it.co.uk)

<sup>1</sup>specify INSTANT or DELAY with ALERT or DELAY without ALERT

## Sleeping pattern

The users sleeping pattern can influence the best choice for setting parameters on the monitor, and in the actual sensor chosen for Bed Vacation. The normal choice would be a pressure mat on top of the mattress, activated by the user's weight. If the user finds this disturbing an under-mattress Ribbon sensor can be supplied but this is influenced by mattress, bed and user weight. An alternative is a Bed Leg sensor, which is activated by the change in the total weight of bed and occupant. This is less sensitive to the sleeping position but the user must be large enough to add significant weight to the bed.

Infrequent movements with body position remaining in the same position.	No special precaution
Restless movements, but with body position remaining in the same position	May need increase to seizure time delay
Restless movements with possible curling up of the body	Test 1 for efficacy. 3 may need Bed Leg sensor to avoid false alarms Check user remains over Enuresis or Vomit detection sheet
Restless movements and curling up at the top or bottom of bed	Test 1 for efficacy. 3 may need Bed Leg sensor to avoid false alarms Enuresis or Vomit detection may not be possible.
Restless movements and inverts position	Test 1 for efficacy. 3 may need Bed Leg to avoid false alarms. Check user remains over Enuresis detection sheet. Vomit detection not possible.
Other types of sleeping patterns	Discuss with supplier

## Shallow Movement Sensing (Guardian)

It is not possible to be precise about monitoring reduced or abnormal shallow movement as a sign of a Tonic seizure. These movements are caused by normal muscle activity such as in the respiratory diaphragm (breathing), limb flexing, body shifting etc. In an effort to calibrate the normal range, the P139 monitor has a learning mode which records the slowest and fastest rate of shallow movements over a period of time. Limits can then be set to detect periods, which are outside this normal situation and could indicate seizure activity. The SLOW limit may be able to detect intense stiffness and the FAST limit may be able to detect rigid tremors (as opposed to the whole body shaking in a Clonic seizure).

In addition the Guardian can signal a total cessation of movement quite rapidly (typically within 20 seconds), which may indicate a SUDEP risk situation. If this protection is desired, then the carer MUST ensure that the unit is not prone to detecting regular false movements which could mask the zero movement situation when the bed is empty (e.g. due to draughts, floor vibration or pressure relieving mattress activity). The occasional false alarm activation is normally acceptable, providing that the alarm is activated correctly in general.

As with any monitor, the risk to the user of failing to detect a relevant symptom MUST be considered, taking into account the frequency of the attacks and the proven capability of the monitors.

Table 2 Conditions and Presentations of seizures

Condition	Presentation	Product	Function
Simple: Partial	Panic or Aura	P135 Personal Call	Press for help
	Breathing Changes	Guardian <sup>1</sup>	Breathing rate change
	Sweating	Companion	Cotton moisture sheets
	Salivation	Companion	Cotton moisture sheets
	Enuresis	Companion	Cotton moisture sheets
	Sounds	Companion	Microphone (Sound Level)
Complex: Partial	Heart Rate	Pulse Guard <sup>2</sup>	Heart Rate Deviation
	Sounds	Companion	Microphone (Sound Level)
	Absconding (night)	Companion	Bed Vacation
	Absconding (day)	P161 Door/P162 Motion	Exit from safe area
	Absconding (day)	Tracker Watch <sup>2</sup>	Geofence & Location
	Repeated Movements (night)	Companion or Companion mini	Repeated bed movement
Generalised: Tonic/Clonic	Repeated Movements (day)	Smart Watch <sup>2</sup>	Limb movements
	Repeated Movements (night)	Companion or Companion mini	Repeated bed movement
	Repeated Movements (day)	Smart Watch <sup>2</sup>	Limb movements
	Enuresis	Companion	Cotton moisture sheets
	Sweating	Companion	Cotton moisture sheets
	Salivation	Companion	Cotton moisture sheets
Tonic	Breathing Changes	Guardian <sup>1</sup>	Breathing rate change
	SUDEP	Guardian <sup>1</sup>	Shallow movement failure
	Fall	P135 Fall Monitor	Detects fast or slow falls
	Sounds	Companion	Microphone (Sound Level)
Atonic	Fall	P135 Fall Monitor	Detects fast or slow falls
	Sounds	Companion	Microphone (Sound Level)
Myoclonic	unlikely SUDEP	Guardian <sup>1</sup>	Shallow movement failure
Absence	Fall	P135 Fall Monitor	Detects fast or slow falls
	Panic or Aura	P135 Personal Call	Press for help
	After bed vacation	Companion	Bed Vacation



## Want to know more?

To find out how Alert-it® can help you contact us for a free no obligations chat.

Alert-it® Care Alarm Technology  
Atherstone House  
Desford  
Leicester  
LE9 9FE

0845 217 9952

01530 231 215

[enquiries@alert-it.co.uk](mailto:enquiries@alert-it.co.uk)

[www.alert-it.co.uk](http://www.alert-it.co.uk)

Find us on

