

Telecare Sensors Installation and Programming Handbook

All the reassurance you need

Tunstall

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introduction



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This handbook has been designed to help telecare service providers to programme, position, install and test telecare sensors correctly. A simple to use key has also been included for quick reference purposes.

This manual has been prepared on the assumption that the reader has received and completed appropriate training by TUNSTALL accredited personnel.
For more information on the current training courses available, please visit www.tunstall.co.uk/training or call 01977 660278

KEY TO SYMBOLS:

Drill required

Screwdriver required

PP Palm PDA required

Hammer required

Philips screwdriver required

Level of difficulty Key

I Installation required

Fitting/Installation/Wiring
1 = Easy no tools required
2 = Simple but requires screwdriver
3 = More complex requires drilling and possible wiring
4 = Requires Tunstall Engineer
5 = Requires CORGI registered Engineer

P Programming required

Programming/Configuration
1 = Easy - plug and play
2 = Less easy - mainly plug and play with some additional configuration
3 = Difficult - training and manual needed
4 = Requires Tunstall Engineer
5 = Requires CORGI registered Engineer

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This manual is intended only to assist the reader in the use or installation of the product, and therefore Tunstall shall not be liable for any loss or damage whatsoever arising from the use of any product or particulars in, or any error or omission in, this manual or any incorrect use of the product.

Please note this handbook does not cover the installation of Sounder Beacons, Visual Call Beacons, Environmental Control Solutions, X-10 Controllers, Pillow Alert Solutions or User/Home Alert Pagers as these require installing.

T1, T2	Amie+	4
T1, T2	Gem+	8
T3	Temperature Extremes Sensor	12
T4	Flood Detector	15
T5	CO Detector	18
T6	Smoke Detector (Line Powered)	21
T6	Smoke Detector (Battery Powered)	23
T6	Smoke Detector (Mains Powered)	25
T6	Ei Smoke/Heat Detector (Line Powered)	27
T6	Ei Smoke/Heat Detector (Mains Powered)	30
T7	Door Usage Sensor	34
T8	Pressure Mat	37
T9	Radio Pullcord	38
T10	Enuresis Sensor	41
T11	Bed/Chair Occupancy Sensor	43
T12, T14	Passive Infra Red Detector	47
T13	Fall Detector	50
T15	Keyless Access Trigger	54
T16, T17, T18, T19	Radio Output Module	56
T20	Natural/LP Gas Detectors	59
T21	Property Exit Sensor	62
T22	Arm/Disarm Trigger	66
T23	Bogus Caller Button	68
T24	Electrical Usage Sensor	70
T26	Medication Dispenser	72
T28	Epilepsy Sensor	76
T29	Zoning Button	79

Glossary of Terms

ALB = Auto Low Battery
ERP = Effective Radiated Power
uW = Micro Watts
P&P = Plug & Play
PNC = Refers to PNC3 Vision or PNC4 Vision monitoring centre
MHz = MegaHertz
TMU = Telecare Manager Unit on Telecare Overlay Extra

Trigger Type 01,02

67005/02



Specification:

Models:	67005/02	Standard UK with Auto Low Battery (ALB)
	67005/03	Aidcall Code A with ALB
	67005/04	Aidcall Code R with ALB
	67005/54	With ALB and Auto Presence
Dimensions:		31mm x 58mm x 16mm (W x H x D)
Weight:		20g
Frequency:		869.2125MHz
Range:		25m to 50m
Batteries:		Non - replaceable lithium cells. Expected life 20,000 operations over 5 years.
Options:		Complete with passive neck cord and belt clip. Optional wrist strap, pocket clip, key fob.
Environment:		Not waterproof but resistant to depth of 1m for 30 seconds
Output:		Approx 100 uW
Identity:		Marked with Unit Identification number, serial and manufacture date

General:

- Basic general purpose radio trigger provided for use with Tunstall Lifeline home units and group Telecare systems.
- Raises an alarm within confines of dwelling up to approx 50 meters dependant on local structure.
- Not available with active antenna neck cords.
- Includes the Auto Low Battery (ALB) option with call code 8.
- The Amie will also remotely answer any incoming call to a home unit, a second press of the Amie will clear the call.
- Instant low battery identified by a slow flashing LED when the button is pressed giving a call code 5.
- Optional Auto Presence feature.
- Programmable into Telecare Managers Units (TMU) on grouped systems with Telecare Overlay Extra.

Programming:

Only 869MHz receiver hosts can be assigned with the Amie+ i.e the Lifeline 4000+, the Lifeline 400 and the Telecare Managers Unit. The latest version of these home units will permit a Plug and Play (P&P) option where you enter program mode, enter radio assign mode and then just press the trigger. The advantage of this is that the type meanings of the trigger are automatically entered for you. In this case the type would be personal trigger with the first assigned being configurable as resident 1, the second as resident 2 and the third as resident 3.

It is possible to override P&P by choosing the location where you wish to assign the trigger and then entering the correct type number. Note that different units can have different locations for trigger assigning. Normally the even numbered location is where the trigger Ident is stored and the odd numbered location is where the trigger type number is stored. Units with displays can use the program menus to change type that is written as text.

Example:

The Lifeline 400 can store 12 triggers starting at location 60 and 61. The radio assign procedure enters the first trigger Ident into location 60. The trigger type number can be checked by PNC or entered by PNC in location 61 using the following format of 16 digits;

0100010004031000	Manual trigger First Resident
0100020004031000	Manual trigger Second Resident
0100030004031000	Manual trigger Third Resident

Note that the first two digits 01 indicates manual trigger and the 5th,6th digits indicate first, second or third resident.

Auto Low Battery:

These triggers incorporate a feature that checks its battery every 7 days (set in memory). If the battery is low then a signal is transmitted that activates a silent call to the monitoring centre as a code 8 information call. The monitoring centre translates this call and alerts the operator to a battery low condition.

It should be clear that a code 8 battery low call is not an immediate threat and that it can occur due to spurious temperature changes. A single call of this type may be transmitted even though there are months of battery life remaining. It is better to make a note of the event and then request the user to verify by pressing the trigger. If a code 5 results then the battery is indeed low and a replacement required.

Auto Presence:

Some special triggers include the option to have Auto Presence enabled. When the red button is pressed for about 5 seconds then the unit may flash its LED either slowly or rapidly. If slowly then the Amie is set not to use auto presence whilst a rapid flash indicates the Amie is set to use auto presence.

The associated Lifeline must also be enabled for Auto presence monitoring.

When both units are set for use then the Amie+ will send a transparent transmission at regular intervals (about 4 hrs). If the Lifeline misses 20 consecutive transmissions it will raise a silent alarm to the monitoring centre (code 8 information call).

In order to avoid transmission in transit the Amie+ can be disabled by pressing the button until the red LED flashes slowly.

Auto presence type triggers are normally set to type 02

The calls generated by the PNC to show the correct text should be

Call code 2	Info 0001	Personal Resident 1
Call code 5	Info 1001	Personal Resident 1 with low battery
Call code 8	Info 1201	Personal Resident 1 auto low battery alert
Call code 2	Info 0002	Personal Resident 2
Call code 5	Info 1002	Personal Resident 2 with low battery
Call code 8	Info 1202	Personal Resident 2 auto low battery alert
Call code 2	Info 0003	Personal Resident 3
Call code 5	Info 1003	Personal Resident 3 with low battery
Call code 8	Info 1203	Personal resident 3 auto low battery alert
Call code 6	Info 0066	Unit auto presence failure

How to program

Note that programming assumes both home units and PNC are fitted with the latest software to date. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays “register trigger” (red button should flash rapidly).
- Press the trigger
- Check unit announces “personal trigger registered” and show text to that effect. With the menu keys set the trigger to the relevant configuration e.g Resident 1
- Exit with the cancel key.

To delete go to program mode and select “triggers”

- Scroll to relevant trigger taking care to match with the trigger Ident written on the reverse label.
- Press delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Press the trigger
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Press trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- At the text prompt Press the trigger
- Check correct data displayed as per trigger e.g trigger Ident
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

- Select and either enter the known trigger Ident OR press the relevant trigger, press delete
- Exit program mode

Alternatively go to program mode, choose "list triggers" then scroll to the wanted trigger.
Select Info and then delete.

Technical:

The Amie is not a user serviceable item. When the button is pressed a red LED should illuminate for a few seconds to indicate a transmission. The device must be radio assigned to a Tunstall Lifeline home unit or TMU. A pressed alarm results in a code 2 call or if the battery is low a code 5 call.

Trigger Type 01,02

67005/05



Specification:

Models:	67005/05 standard UK with Auto Low Battery (ALB) 67005/06 for use with Aidcall versions code A 67005/07 for use with Aidcall versions code B 67005/55 includes Auto Presence option
Dimensions:	W43.5mm x H47.5mm x D16mm (WxHxD)
Weight:	25g
Frequency:	869.2125MHz
Range:	25m to 50m
Batteries:	Non - replaceable lithium. Expected life 20,000 operations over 5 years
Wearing options:	Complete with passive neck cord and belt clip. Optional wrist strap
Environment:	Not waterproof but resistant to depth of 1m for 30 seconds.
Identity	Marked with Unit Identification number, serial and manufacture date

General:

- Alternative radio trigger provided for use with **Tunstall** Lifeline home units and group telecare systems.
- Raises an alarm within confines of dwelling up to approx 50 metres dependant on local structure.
- The Gem+ will also remotely answer any incoming call. A second press of the Gem+ will clear the call.
- Low battery is identified by a slow flashing LED when the button is pressed and an auto code 5 call is sent to the monitoring centre.
- Optional Auto Presence feature.

Programming:

Only 869MHz home units can be assigned with the Gem+ i.e the Lifeline 4000+ and the Lifeline 400. The latest version of these models will permit a plug and play (P&P) option where you enter program mode, enter radio assign mode and then just press the trigger. The advantage of this is that the type meanings of the trigger are automatically entered for you. In this case the type would be personal trigger with the first assign being configurable as resident 1, the second as Resident 2 and the third as Resident 3.

It is possible to override P&P by choosing the location where you wish to assign the trigger and then entering the relevant type data of your choice. Note that the home units can have different locations for trigger assigning. Normally the even numbered location is where the trigger Ident is stored and the odd numbered location is where the data is stored. Units with displays can use the program menus to change type data.

Example:

The Lifeline 400 can store 12 triggers starting at location 60 and 61. The radio assign procedure enters the trigger Ident into location 60. The data is entered in location 61 using the following format of 16 digits;

0100010004031000	Manual trigger First Resident
0100020004031000	Manual trigger Second Resident
0100030004031000	Manual trigger Third Resident

Note that the first two digits 01 indicates manual trigger and the 5th,6th digits indicate first, second or third.

Auto Low Battery:

These triggers incorporate a feature that checks its battery every 7 days. If the battery is low then a signal is transmitted that activates a silent call to the monitoring centre as a code 8 information call. The monitoring centre translates this call and alerts the operator to a battery low condition.

It should be clear that a code 8 battery low call is not an immediate threat and that it can occur due to spurious temperature changes. A single call of this type may be transmitted even though there are months of battery life remaining. It is better to make a note of the event and then request the user to verify by pressing the trigger. If a code 5 results then the battery is indeed low and a replacement required.

Auto Presence:

Some special triggers include the option to have Auto Presence enabled. When the red button is pressed for about 5 seconds then the unit may flash its LED either slowly or rapidly. If slowly then the Gem+ is set not to use auto presence whilst a rapid flash indicates the Gem+ is set to use auto presence.

The associated Lifeline must also be enabled for Auto presence monitoring.

When both units are set for use then the Gem+ will send a transparent transmission at regular intervals (about 4 hrs). If the Lifeline misses 20 consecutive transmissions it will raise a silent alarm to the monitoring centre (code 8 information call).

In order to avoid transmission in transit the Gem+ can be disabled by pressing the button until the red LED flashes slowly.

Auto presence type triggers are normally set to type 02

The calls generated by a PNC to show the correct text would be:

Call code 2	Info 0001	Personal Resident 1
Call code 5	Info 1001	Personal Resident 1 with low battery
Call code 8	Info 1201	Personal Resident 1auto low battery alert
Call code 2	Info 0002	Personal Resident 2
Call code 5	Info 1002	Personal Resident 2 with low battery
Call code 8	Info 1202	Personal Resident 2 auto low battery alert
Call code 2	Info 0003	Personal Resident 3
Call code 5	Info 1003	Personal Resident 3 with low battery
Call code 8	Info 1203	Personal resident 3 auto low battery alert
Call code 6	Info 0066	Unit auto presence failure

How to program

Note that programming assumes both host units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly)
- Press cancel key until unit beeps and displays “register trigger” (red button should flash rapidly).
- Press the trigger
- Check unit announces “personal trigger registered” and show text to that effect.
- With the menu keys set the trigger to the relevant configuration e.g Resident 1
- Exit with the cancel key

To delete go to program mode and select “triggers”

- Scroll to relevant trigger taking care to match with the trigger Ident written on the reverse label.
- Press delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Press the trigger
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Press trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- At the text prompt Press the trigger
- Check correct data displayed as per trigger e.g trigger Ident
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

- Select and either enter the known trigger Ident OR press the relevant trigger, press delete
- Exit program mode

Alternatively go to program mode, choose "list triggers" then scroll to the wanted trigger.
Select Info and then delete.

Technical:

The Gem+ is not a serviceable item. When the button is pressed a red LED should illuminate for a few seconds to indicate a transmission. The device must be radio assigned to a Tunstall Lifeline home unit or TMU. A pressed alarm results in a code 2 call or if the battery is low a code 5 call.

Temperature Extremes Sensor

Trigger Type 03

69005/03



Specification:

Sensor:	Dallas DS1624S
Dimensions:	83 x 108 x 37 (WxHxD)
Working temp:	-10°C to 55°C
Battery life:	Up to 6 months depending on usage
Range:	Up to 50m
Sensor power:	Three AAA alkaline batteries
Frequency:	869.2125MHz

General:

- Used in conjunction with a Lifeline 400, 4000+ or TMU to raise a code 3 or a code 6 alarm.
- Comprises a commercial temperature sensor and a Universal Radio Module (URM) in the same housing.
- Detection of two specific thresholds, high and low, and also a rise of temperature over a set period.
- Includes auto low battery warning.
- Screw mounted to walls or ceiling, indoor use only.
- Includes integral test button with red LED to check each warning and for assignment to a home unit.
- Replaceable batteries for sensor unit type AAA.
- Complete with user guide D6908005A

How to program

Note that programming assumes both host units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays “register trigger” (red button should flash rapidly).
- With a paper clip press and hold test button for a few seconds.
- Check unit announces “temperature trigger registered” and shows “Heat”.
- With the menu keys set as required (e.g visual, silent etc)

- Exit with the cancel key.
- To delete go to program mode and select “triggers”
- Scroll to relevant trigger taking care to match with the trigger Ident written on the reverse label.
- Enter delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- With a paper clip press and hold button the test button for a few seconds.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select “Assign Trigger”
- Enter relevant dwelling number and OK
- At the text prompt and with a paper clip press and hold the test for a few seconds.
- Check correct data displayed as per trigger e.g trigger Ident
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to “delete triggers”
Select and either enter the known trigger Ident OR press the relevant trigger, press delete,
Exit program mode

Alternatively go to program mode, choose list triggers then scroll to the wanted trigger.
Select Info and then delete.

Technical:

- The sensor can be assigned to the unit as a P&P device where it will be recognised and set up automatically. The relevant TT92 codes will adjust depending on the type of temperature alarm i.e 86 to 90. The type meaning data will be set as 03
- When a unit is in program mode the sensor can be triggered or assigned by depressing the internal button with a suitable utensil (accessed via a hole on the outer case). Sensors should be assigned prior to fitting and then checked in location for workable range to the host unit. Pressing the test button each time will cycle through each type of alarm except battery low.
- The expected radio range is up to 50 meters however this depends on conductive environments.

Temperature Extremes Sensor

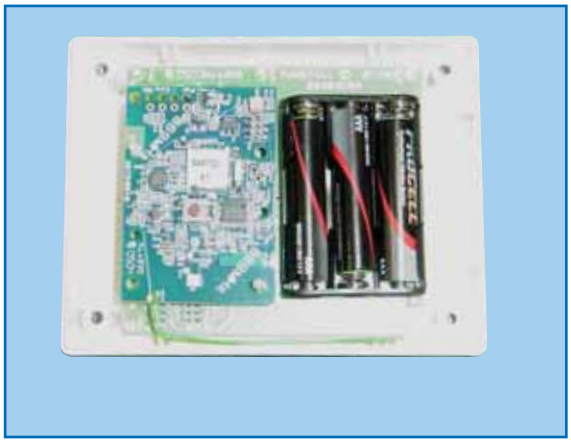
- The sensor should be able to detect any of the following states and then activate the radio trigger:
  - a. a temperature of + 2°C or less for 20 minutes (see note 1)
  - b. a temperature of + 35°C or more for 2 minutes (see note 1)
  - c. a rise in temperature of 1°C per minute for longer than 29 minutes.
  - d. a faster rise in temperature of 3°C per minute for longer than 5 minutes.
  - e. auto low battery
- A different TT92 location code is sent over the telephone line to indicate each state.

These codes are as follows:

86	dangerous temperature rise
87	very low temperatures
88	sensor fault
89	high temperatures
90	auto low battery

The codes generated by a PNC to show the correct text should be:

Code 3	0086 dangerous temperature rise
Code 3	1086 temp rise and low battery
Code 6	0087 low temperature
Code 6	1087 low temp and low battery
Code 8	0088 sensor fault
Code 8	1088 sensor fault and low battery
Code 3	0089 high temperature
Code 3	1089 high temp low battery
Code 8	1390 auto low battery



Notes: 1 There will be available a choice of sensor with different trigger points i.e +12 deg C lower limit and +42 deg C upper limit.

Recommended positioning:

Operates between -10°C & +55°C 2°C = Low 35°C = High

When monitoring temperature rates of rise and the fixed upper temperature, it is recommended that the Temperature Extreme Sensor be fitted at a central point on the ceiling (Max height 2.6m), away from doors, windows and clear from light fittings.

When monitoring cold conditions it is recommended that the Temperature Extreme Sensor be fitted to a wall and within 50cm of the area or item being protected preferably away from draughts and avoiding locations that could expose the sensor to accidental damage. Always ensure that the sensor location offers a good radio transmission path to the receiving equipment.

How to test:

Test by going onto program mode then activating test buttonf (ie press and hold). Lifeline will acknowledge. Exit program mode.



Trigger Type 04

67005/37

Specification:

Batteries:	Sensor requires 9v PP3 alkaline. This is replaceable and is to be changed once per year. Battery low warning beep every minute for 30 days. Radio battery is non-replaceable 3v lithium cells with a 5 year life and auto low battery warning. (ALE)
Frequency:	869.2125MHz
Range:	up to 50 meters
Dimensions:	90mm x 31mm (Diameter x H)
Alarm:	High pitched sounder as long as water detected between probes. Normally open relay output drives RF board transmitter after water detection.
Fitting:	Free standing flat surface only.
Working temperature:	-10°C to 50°C
Environment:	The device is NOT waterproof and should be changed if immersed.
Identity:	Marked with device Ident, serial and manufacture date

General:

- The device provides an early warning of potential flooding and should be place in suitable risk areas.
- Brass probes underneath the device will detect the presence of water between them, however, to avoid false triggering by moisture the probes do not touch the floor surface.
- Placing on a damp sponge or touching with wet damp fingers can test the device.
- An alarm is raised as soon as water is detected between the probes. A local high pitch tone is sounded and if assigned to a Tunstall home unit then this will be activated.
- The sounder will beep once per minute for low battery condition if the internal 9V power pack is low.

Programming:

The device is part of the Telecare P&P range and as such only needs to be radio assigned.

The active alarm will generate a call code 6 and a TT92 location code of 94 for the first sensor of a dwelling. Further assigned flood sensors to the same unit will not change this code so a second, third, fourth or fifth sensor would need the TT92 code changed manually.

For example:
Flood sensor assigned to a unit as the number 2 would need the odd number location set to

0400110004031000

Where 04 means flood sensor and 11 means TT92 code for number 2 device. For the third, fourth, fifth use codes 12,13,14. Note that the residential data base at the PNC could be changed to allocate and translate these codes as rooms etc.

The codes generated by a PNC to show the correct text should be:

Call code 6	0094	Flood sensor No 1
Call code 6	1094	Flood sensor No 1 low battery RF module
Call code 8	1694	Flood sensor No 1 auto low battery
Call code 6	0011	Flood sensor No 2
Call code 6	1011	Flood sensor No 2 low battery RF module
Call code 8	1611	Flood sensor No 2 auto low battery
Call code 6	0012	Flood sensor No 3
Call code 6	1012	Flood sensor No 3 low battery RF module
Call code 8	1612	Flood sensor No 3 auto low battery
Call code 6	0013	Flood sensor No 4
Call code 6	1013	Flood sensor No 4 low battery
Call code 8	1613	Flood sensor No 4 auto low battery
Call code 6	0014	Flood sensor No 5
Call code 6	1014	Flood sensor No 5 low battery RF module
Call code 8	1614	Flood sensor No 4 auto low battery

How to program

Note that programming assumes both home units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays “register trigger” (red button should flash rapidly).
- Apply moisture to the 2 gold probes that are situated nearest each other.
- Check unit announces “ flood trigger registered” and shows “Flood”.
- With the menu keys set location and or number as required.
- Exit with the cancel key.

To delete go to program mode and select “triggers”

- Scroll to relevant trigger taking care to match with the trigger Ident written on the reverse label.
- Press delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Apply moisture to the 2 gold probes that are situated nearest each other.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

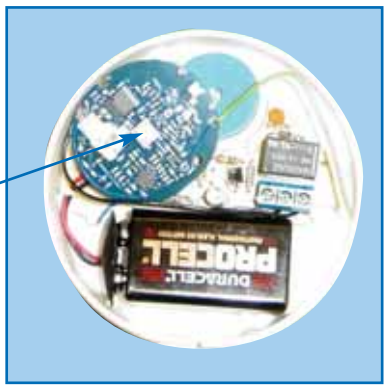
3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- Apply moisture to the 2 gold probes that are situated nearest each other.
- Check correct data displayed as per trigger e.g Flood
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

- Select and either enter the known trigger Ident OR press the relevant trigger, press delete.
- Exit program mode.
- Alternatively go to program mode, choose "list triggers" then scroll to the wanted trigger.
- Select Info and then delete.

Technical:



Recommended positioning:

The flood detector should be placed on a flat surface close to a Bath, Wash Basin, Toilet or Sink where a flood or leak is likely to occur.

How to test

Apply moisture to the 2 gold probes that are situated nearest to each other

NB do not immerse the unit in water

CO Detector

Trigger Type 05

67005/51





Specification:

Model:	SF361 EN-TUN
Alarm Indication:	Flashing LED and audible beeper
Alarm levels:	For gas concentrations of 150ppm between 10 and 30 minutes or for 350ppm within 6 minutes (as required by BS7860).
Battery:	3 x AAA batteries
Operating temperature:	-5°C to 40°C
Gas module life:	5 years
Battery life:	2 years, green flash once per minute. With ALB monitoring
Frequency:	869.2125MHz
Test:	Integral button that generates CO Morse signal End of Life 3 chirps per minute Sensor fault 2 chirps per 5 minute Battery low 1 chirp every 5 seconds
Installation guide:	SF own 2109M5030
Identity:	Marked with serial, Ident and manufacturers date.

General:

- Install device at least 1.5m above the floor and at lease 1.85m from the fuel burning apparatus.
- See manufacturers instructions (2109M5030) for more details.
- Test at regular intervals

How to program

Note that programming assumes both home units and PNC are fitted with the latest software to date. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays "register trigger" (red button should flash rapidly).
- Press the test button until device alarms.
- Check unit announces "CO Detector registered" and shows "CO Detector".
- With the menu keys set config as required e.g visual , silent etc
- Exit with the cancel key.

To delete go to program mode and select "triggers"

- Scroll to relevant trigger taking care to match with the trigger Ident written on the reverse label.
- Press delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Press the test button until device alarms.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- Press the test button until device alarms.
- Check correct data displayed as per trigger e.g CO Detector
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

- Select and either enter the known trigger Ident OR press the relevant trigger, press delete.
- Exit program mode.

Alternatively got to program mode, choose list triggers then scroll to the wanted trigger. Select Info and then delete.

Technical:

The sensor is wireless and therefore can be assigned as a radio trigger into Tunstall Lifeline 400, 4000+ and TMUs. It uses P&P assign procedures and so will be automatically set up with the correct type meaning code (05) etc.

Assignment is activated by pressing the test button.

The codes generated by a PNC to show the correct text should be:

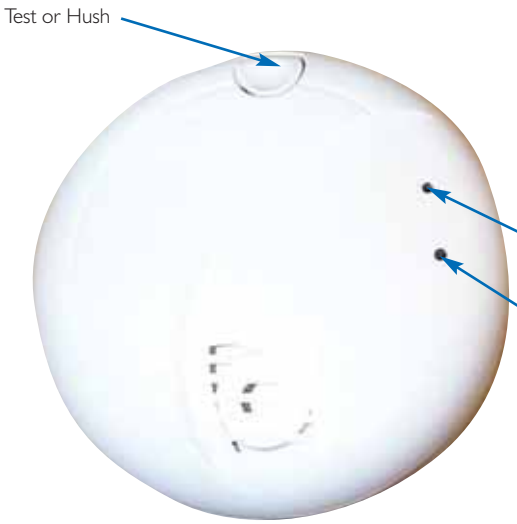
Code 3	0007	CO activation
Code 3	1007	CO battery low
Code 6	0084	Sensor end of life call
Code 6	1084	Sensor end of life and battery low
Code 6	0085	Sensor fault
Code 6	1085	Sensor fault and battery low
Code 8	1308	Auto low battery

Recommended positioning:

For maximum effectiveness the detector should be sited at least 1.5 metres (5 feet) above floor level, and at least 1.85 metres (6 feet) to the side of the appliance. It should not be located outdoors, near a window or door, in or below a cupboard, or anywhere that airflow is restricted.

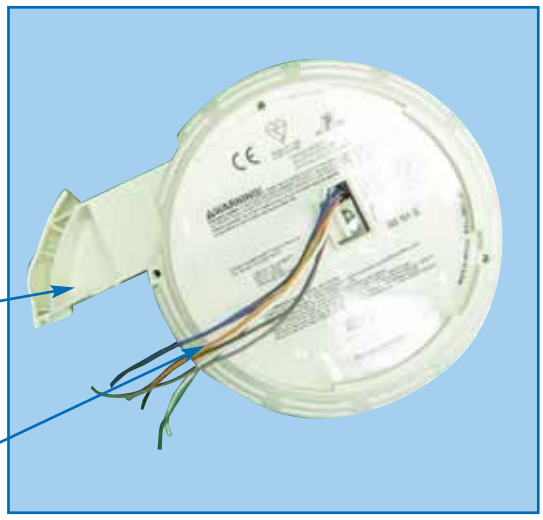
How to test:

Press the test button on the front of the detector. Detector life - 5 years



Trigger Type 06

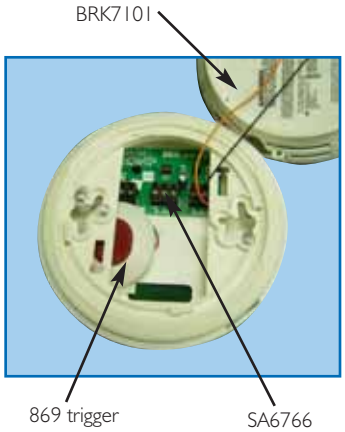
9000/30



Specification:

Model:	BRK 7101TNE
Voltage:	20 to 48v DC
Consumption:	25mA in alarm mode
Power:	Local battery and scheme system voltage
Detector life:	Maximum 10 years

General:

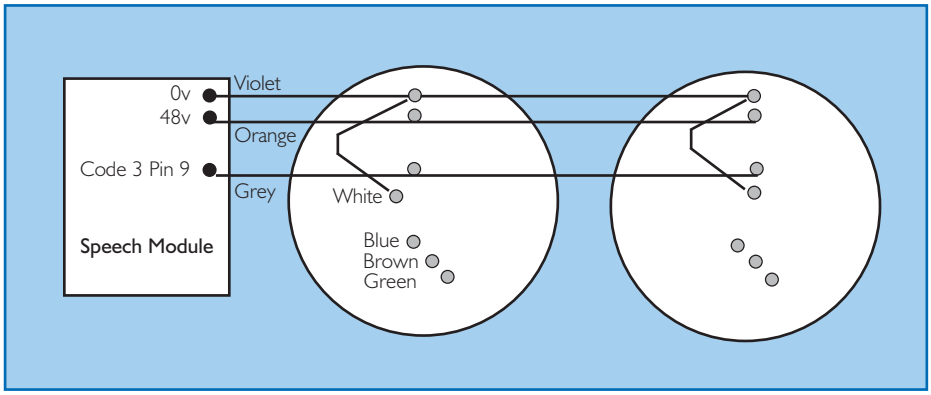


- Universal line powered detector for connection to system line voltages up to 48v. Hence useful for Group, Haven, Communicall and Vision.
- Integral test button facility (press and hold button for 5 seconds)
- Normal operation gives single flash of red LED per minute
- Alarm operation gives rapid flash of red LED and audio
- Chirp sounds once per minute when local battery low volts
- Must use local battery as well as line power or low battery chirp may result
- Hush button gives red flash every 10 seconds

Technical:

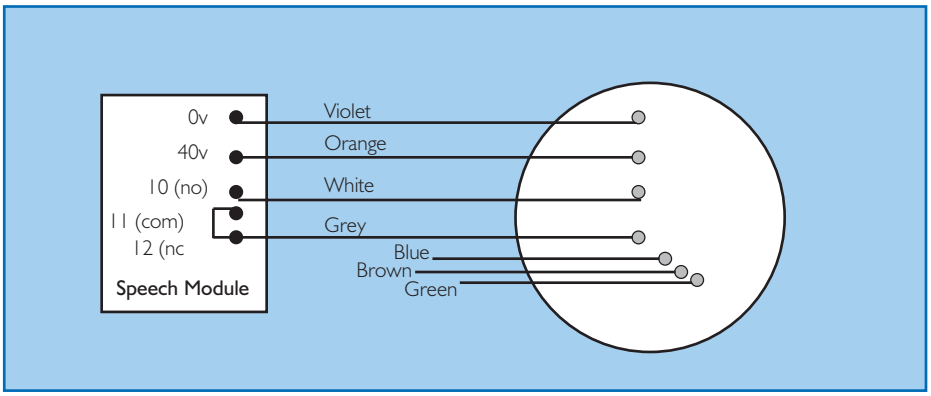
The unit is provided with installation instructions to cover use with Haven and Group. Some details are repeated here and include Communicall and Communicall Vision.

GROUP
normally open trigger

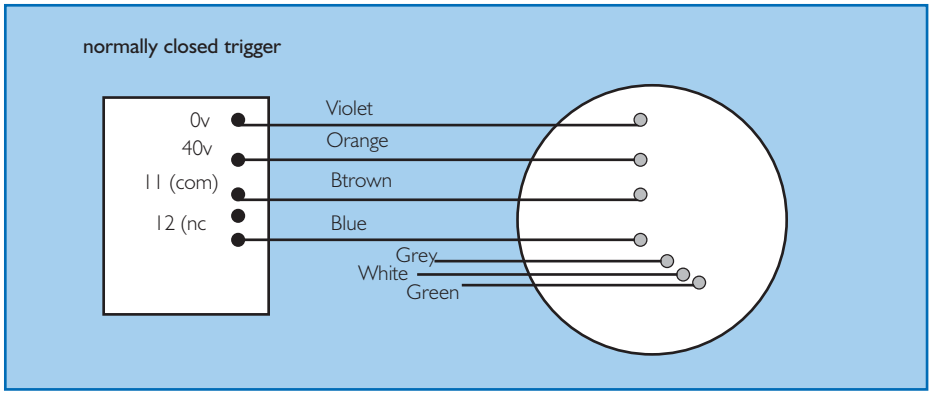


NOTE Interconnect is not possible

HAVEN / COMMUNICALL
normally open trigger



normally closed trigger



COMMUNICALL VISION
As for Communicall but ensure link SK6 is also closed inside Speech Module.

COMMUNICALL VISION 2
Ensure LK1 made inside speech module.

NOTE Interconnect is not possible

Recommended positioning:
Always place on the ceiling in the centre of the room. Do not install in draughts, bathrooms next to vents.

How to test
By pressing the test button, you are testing that the smoke detector is working
Detector life - maximum of 10 years

Trigger Type 06

67005/58





Specification:

Combination:	BRK710LE (9000/76A) plus SA6766 pattress
Voltage:	DC 9V
Battery:	Lithium 9V PP3 and Lithium cell for radio trigger.
Battery life:	Up to 5 years, auto low battery warning for radio trigger battery only.
Consumption:	25mA in alarm mode

General:

- Pull out battery compartment for easy fit Lithium 9V cell
- Integral test button facility, press and hold button for more than 5 seconds
- Normal operation gives single flash of red LED per minute
- Alarm operation gives rapid flash of red LED
- Hush feature to silence alarms for 15 minutes. LED will flash every 10 seconds (will not react during this period)
- Low battery warning chirp.
- Power OK indicator. LED flash every minute.
- Minimal maintenance
- Use for short range assignment to Tunstall Lifeline 400, 4000+ and TMUs



Technical:

- The unit is provided with BRK basic installation instructions.
- The part number provides for both the BRK device as a 9000/76 and the output relay board SA6766.
- The output from the BRK device is connected to the relay board such that the orange signal wires connects to I, and the black ground wire connects to N. No other connections are necessary for a single installation.
- The 9V batteries fit via a slotted chamber and hence are vulnerable to mechanical connections. All detectors must be tested for power and operation after fitting.
- Call generated is code 3 and can be assigned as P&P with all units. Calls will arrive at a PNC with the following TT92 data unless a manual adjustment is made to provide room locations.

Code 3	0004	Smoke alarm unspecified location
Code 3	1004	Smoke alarm and low battery RF module
Code 8	1304	Auto low battery

Recommended positioning:

Always place on the ceiling in the centre of the room. Do not install in draughts, bathrooms next to vents.

How to test

By pressing the test button, you are testing that the smoke detector is working
Detector life - maximum of 10 years



Trigger Type 06

67005/38

Specification:

Model:	BRK 7010LBE (9000/73) plus SA6766 interface pattress
Voltage:	AC 240v 50 Hz
Battery:	Non replaceable Lithium cells with 5 year life for the radio trigger and Lithium back up PP3 battery for the detector. Auto low battery for radio trigger only
Frequency:	869.2125 MHz
Radio Output:	Approx 100 uW
Interconnect:	Max of 12 units can be interconnected
Detector life:	Maximum 10 years

General:

- Mains driven unit with opto relay output.
- Integral test button facility, press and hold button for more than 5 seconds.
- Normal operation gives single flash of detector LED per minute
- Alarm operation gives rapid flash of LED
- On mains fail lithium battery will ensure operation of unit and the radio trigger.
- Short range radio so may not be suitable for schemes.
- Hush feature to silence alarms for 15 minutes. LED will flash every 10 seconds (will not react during this period)

How to program

Note that programming assumes both home units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays " register trigger" (red button should flash rapidly).
- Press the test button until device alarms.
- Check unit announces "Smoke Detector trigger registered" and shows " Smoke".
- With the menu keys set room location as required.
- Exit with the cancel key.
- To delete go to program mode and select "triggers"
- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Press delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Press the test button until device alarms.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- Press the test button until device alarms.
- Check correct data displayed as per trigger e.g Smoke
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

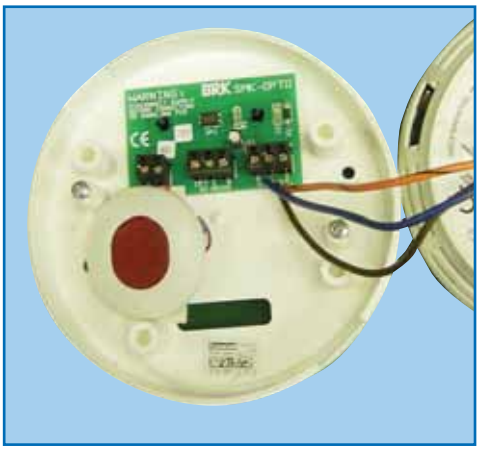
- Select and either enter the known trigger Ident or press the relevant trigger, press delete
- Exit program mode.

Alternatively go to program mode, choose list triggers then scroll to the wanted trigger.

- Select Info and then delete.

Technical:

- The unit is provided with BRK basic installation instructions.
- Connection to Earth is optional



All Systems:

The provided wire loom connects from the BRK detector to the opto board. The wires must be connected to the terminals marked DETECTOR with Live (L) to brown, Neutral (N) to blue and Interconnect (I) to orange. Power is then connected to the terminal marked AC MAINS.

Recommended positioning:

Always place on the ceiling in the centre of the room. Do not install in draughts, bathrooms next to vents.

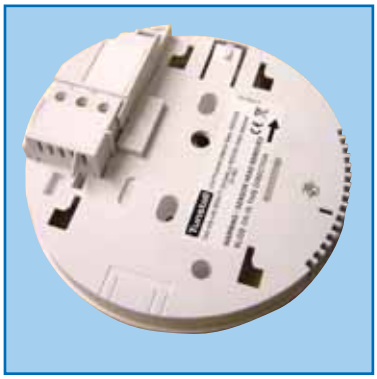
How to test...

By pressing the test button, you are testing that the smoke detector is working
Detector life - maximum of 10 years

Trigger 06

9000/77, 9000/80, 9000/83





Ei Head Base 9000/83 issue A

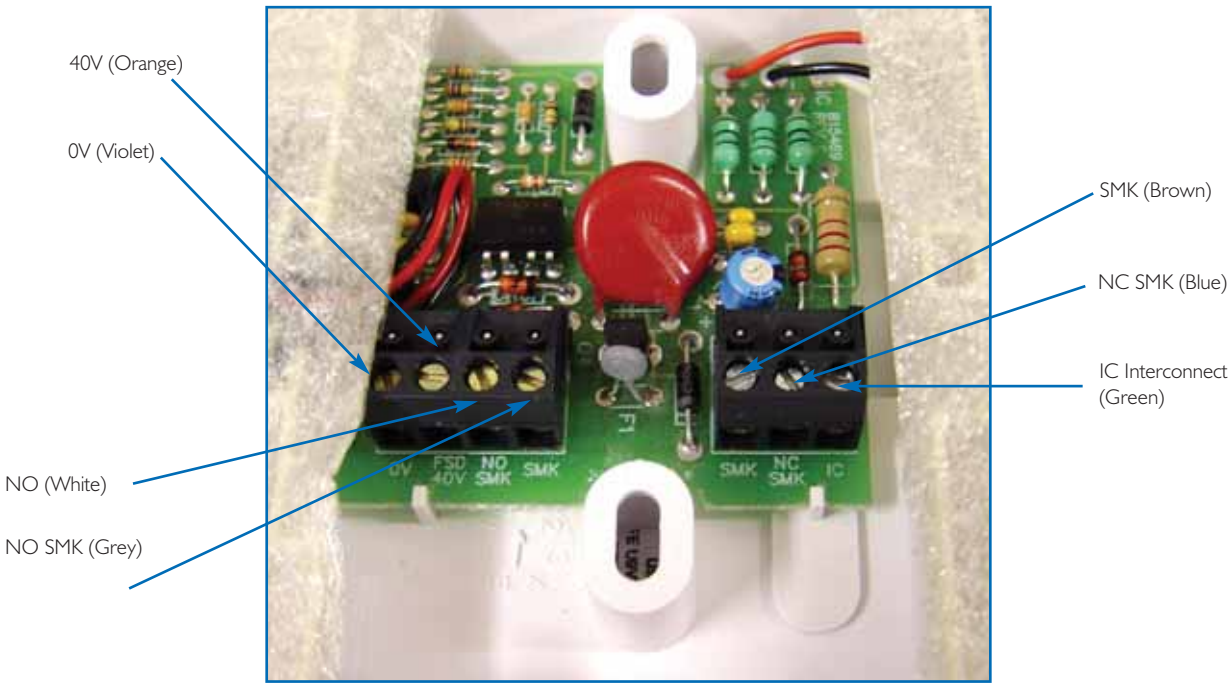


Ei Heat Head (Line Powered) 9000/80 Issue A

Ei Smoke Head (Line Powered) 9000/77 Issue A

Specification:

Battery: Local 9v Lithium PP3 battery with low battery indication.
Voltage: Line voltage 40V dc
Detector life: Maximum 10 years



Ei Smoke/Heat Detector Line Powered

Technical:

- Two head option for fitting to one base unit.
- Normally closed or normally open output, polarity conscious.
- Test feature also used as hush button.
- Permits up to 5 interconnected devices.
- Audible and visual alarm
- Power applied LED
- For Haven and Communicall apply normally closed procedures to the speech module. A **3 pair cable** is used to connect from the speech module to the first device and then on to other interconnected devices.
- For new Communicall and Vision speech modules the terminal board includes a special screw connection for a Fused Smoke Detector (FSD). This is used for powering the smoke/heat detectors where any short circuit on the cable would not short out the system supply.
- For Group speech modules the trigger pair **must be** from the normally open output, **however do not use with Group DCU control systems.**
- The test button works on a press and hold principle. Note that any test will instigate a 10 minute hush or de-sensitized time period.
- The heads include an unused LED lens.
- The line powered base 9000/83A must **ONLY BE USED** with either 9000/80 or 9000/77 devices.
- Heads and bases are guaranteed in the field for 1 year and heads have an expected life of 10 years.
- Heads **must** have their internal 9V battery packed snapped into service before use.
- Heads and bases have side labels showing end of use dates and date of manufacture e.g 05W40 means year 05 week 40.

TRIGGER CONNECTIONS
IMPORTANT

1. The trigger output is leg conscious in all applications
2. Ensure all connections are made at the smoke detector prior to the speech module.
3. Ensure that power up of the speech module or its power down and back up is the last activity before testing.

SYSTEM	SMOKE DET	SPEECH MODULE
HAVEN	NC SMK	NC Pin 12
	SMK (-)	ENV Pin 11
COMMUNICALL EL	NC SMK	NC Pin 12
	SMK (-)	SMK Pin 11
VISION	NC SMK	NC SMK
	SMK (-)	SMK
GROUP	NO SMK	Pin 1
	SMK (+)	Mat Pin 9

STATUS INDICATION CHART

Status	Noise in base	Green LED	RedLED	I/C output Outputs	N/O and N/C
Scheme Supply Present					
Idle	none	On	Flash every 40 secs	Low	None
Local smoke detected	continuous	On	Flash every 0.7 seconds	High	Asserted, continuous
Remote smoke detected	continuous	On	No flash	Being used as input	Asserted, continuous
Test (and starts hush)	Continuous- as long as tested	On	Flash every 0.7 seconds	High	Asserted, continuous- as long as tested
Hush (started by test button)	none	On	Flash every 10 seconds for 10 mins	Low	None
Low battery	Beep circa every 40 secs	On	Flash every 40 secs	Low	None
Fault (chamber defect)	Beep circa every 40 secs	On	Flash non-coincident	Low	None
Scheme supply absent, battery present					When supply is removed, N/C g**oes open**, N/O stays open
Idle	none	Off	Flash every 40 secs	Low	N/C remains open, N/O remains open
Local smoke detected	continuous	Off	Flash every 0.7 seconds	High	N/C remains open, N/O remains open
Remote smoke detected	continuous	Off	No flash	Being used input	N/C remains open, as N/O remains open
Test (and starts hush)	Continuous- as long as tested	Off	Flash every 0.7 seconds	High	N/C remains open, N/O remains open
Hush (started by test button)	none	Off	Flash every 10 seconds for 10 mins	Low	N/C remains open, N/O remains open
Low battery- sensor detected	Beep circa every 40 secs	Off	Flash	Low	N/C remains open, N/O remains open
Fault (chamber defect)	Beep circa every 40 secs	Off	Flash non-coincident	Low	N/C remains open, N/O remains open
Scheme supply absent, battery absent or discharged					
Any state	none	Off	Off	Low	N/C remains open, N/O remains open
Head removed from base (scheme supply present)	None- even when test button pressed	On	Off	N/A	N/C remains closed, N/O remains open- no alarm

Recommended positioning:

Always place on the ceiling in the centre of the room. Do not install in draughts, bathrooms next to vents.

How to test

By pressing the test button, you are testing that the smoke detector is working
Detector life – maximum of 10 years

Trigger 06

9000/79, 9000/82, 9000/84





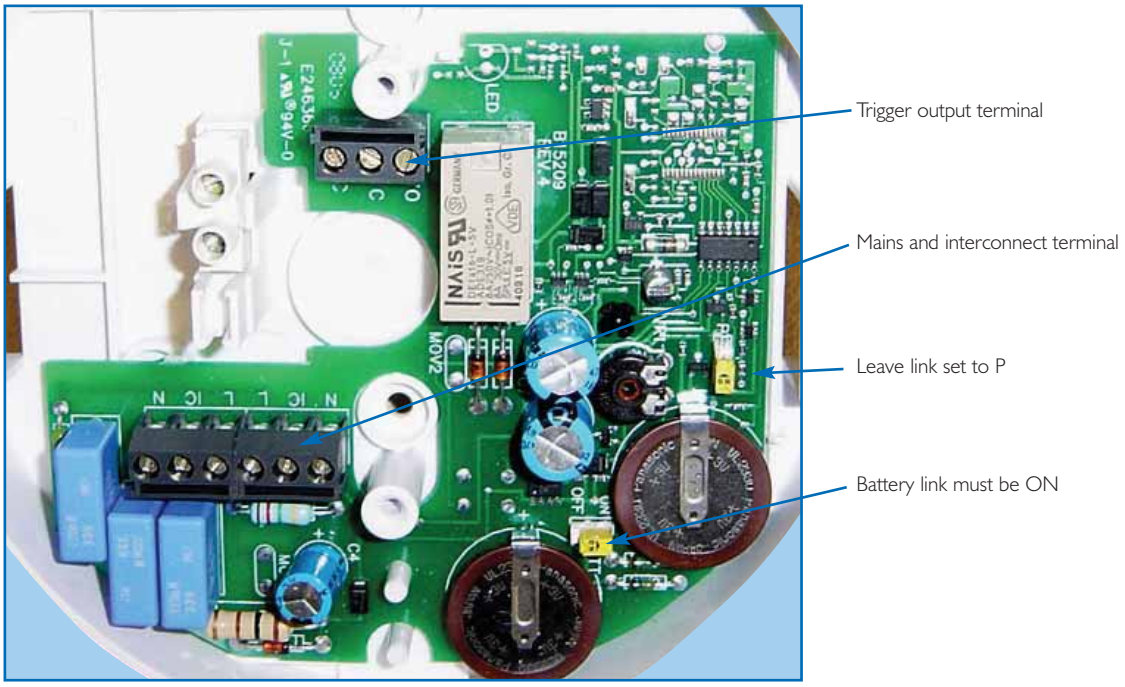


Ei Heat Head (Mains Powered) 9000/82 Issue A



Mains Mounting Pattress 9000/84A

Ei Smoke Head (Mains Powered) 9000/79 Issue A



Relay Base 9000/85 Issue A

Specification

Battery: Back up internal Lithium battery (shelf life circa 10 years).
This ensures protection even if the power fails, not replaceable.

Detector life: Maximum 10 years

Technical:

- Test feature by pressing a button until sounds. Note this will de-sensitize for the next 10 minutes.
- Hush feature by pressing the button. This will cease all alarm sounds AND de-sensitize for 10 minutes. Note there is a "end of hush time" beep indication with heat heads.
- Red alarm and status LED indicator.
- Green mains power indicator.
- Local alarm and status sounder on alarm.
- Activates the interface in the relay base so as to raise an alarm at the speech module.
- Low battery indication.
- Enhanced status indicators, see Table 1.

Installation Notes

1. For Haven and Communicall apply normally closed procedures to the speech module. The relay base is not polarity conscious.

2. Only one relay base is needed per interconnected network

3. Remember to check relay base battery link set to ON.

4. The test button works on a press and hold principle. Note that any test will instigate a 10 minute hush and de-sensitized time period.

5. Do not use Pulsed (P) relay output, check link set to P.

6. Heads and bases are guaranteed in the field for 1 year and heads have an expected life of 10 years.

7. Heads and bases have side labels showing end of use dates and date of manufacture e.g 05W40 means year 05 week 40.

8. Use cable type 3 core and earth to provide mains and interconnect wire (e.g type 6243Y).

9. Make up a flexible wire loom to the same standard as mains feed when connecting between relay base and mounting pattress.

10. Heat heads have a longer delay when testing before the alarm sound. The button may therefore need to be depressed up to 10 seconds

Technical:

To provide and interface to social alarm equipment a Mains Relay Base (with battery back up) can be optionally fitted between the ceiling and the mains mounting pattress.

The primary use of the relay base is to:

- Provide a screw terminal fix for permanent fitting to scheme trigger cables.
- Provide a screw terminal fix for installation by a qualified electrician in accordance with the Regulations for Electrical Installations published by the Institute of Electrical Engineers (UK) i.e BS7671. Power 230VAC, 40mA, 50Hz. 0.8W.
- Provide for the fitting of a mains mounting pattress and hence easy removal and fitting of required heads.
- House the electronic interface for relay contact trigger output port for 2 wire normally closed connection with Haven or Communicall. The relay is continuous in that it remains switched for as long as smoke persists. This means that the link must be left at C.
- On board rechargeable lithium battery back up. A link must be set to ON when in use. Back up time up to 2 months.
- The relay base should be replaced after 10 years from the date label

WARNING

Mains operated Alarms should be installed and interconnected by a qualified electrician in accordance with the regulations for Electrical Installations published by the Institution of Electrical Engineers (UK) i.e BS7671.

TRIGGER CONNECTIONS

SYSTEM	SMOKE DET	SPEECH MODULE
HAVEN	NC	NC Pin 12
	C	ENV Pin 11
COMMUNICALL EL	NC	NC Pin 12
	C	SMK Pin 11
VISION	NC	NC SMK
	C	SMK

Table 1

Status	Noise	Green LED i	Red LED	I/C output	Relay Status
Idle	none	On	Flash every 40 secs	Low	NC
Local smoke detected	continuous	On	Flash every 0.7 seconds	High	Contact open
Remote smoke detected	continuous	On	No flash	Being used as input	Contact open
Test (and starts hush)	Continuous- as long as tested	On	Flash every 0.7 seconds	High	Open continuous- as long as tested
Hush (started by test button)	none	On	Flash every 10 seconds for 10 mins	Low	NC
Low battery	Beep circa every 40 secs	On	Flash every 40 secs	Low	NC
Fault (chamber defect)	Beep circa every 40 secs	On	Flash non-coincident	Low	NC
Mains supply absent, battery present					
Idle	none	Off	Flash every 40 secs	Low	NC
Local smoke detected	continuous	Off	Flash every 0.7 seconds	High	Contact open
Remote smoke detected	continuous	Off	No flash	Being used as input	Contact open
Test (and starts hush)	Continuous- as long as tested	Off	Flash every 0.7 seconds	High	Contact open
Hush (started by test button)	none	Off	Flash every 10 seconds for 10 mins	Low	NC
Low battery- sensor detected	Beep circa every 40 secs	Off	Flash	Low	NC
Fault (chamber defect)	Beep circa every 40 secs	Off	Flash non-coincident	Low	NC
Head removed from base when test button pressed	None- even	On	Off	N/A	NC

Recommended positioning:

Always place on the ceiling in the centre of the room. Do not install in draughts, bathrooms next to vents.

How to test

By pressing the test button, you are testing that the smoke detector is working
Detector life – maximum of 10 years

Door Usage Sensor

Trigger Type 07

41005/23



Specification:

Power:	Lithium AA, not user replaceable, life span 5 years.
Frequency:	869.2125MHz
Sensor:	Reed switch
RF Module:	SA6754
Instructions:	D4107073A

General:

The Door Usage sensor has two primary roles. It can be used as part of a MIDAS scheme where it monitors and reports to the Lifeline 4000+ that a door such as a fridge or internal door has been opened and closed. This data is then stored in the Lifeline 4000+ until ready to silently forward the information to a special on line computer server. The device can also be used as part of an intruder alarm where if fitted to a window etc can activate an intruder alarm via the Lifeline.

The device can operate either by use of an external wire or via its internal reed switch to magnetic door contact sets.

The device uses P&P assignment to Lifeline 400, 4000+ and TMUs.

How to program

Note that programming assumes both home units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays " register trigger" (red button should flash rapidly).
- Operate the magnetic door contacts
- Check unit announces "Door trigger registered" and shows "Door Contact".
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select "triggers"

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Enter delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Operate the magnetic contacts.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3.TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- Operate the magnetic contacts.
- Check correct data displayed as per trigger e.g Door Contact
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

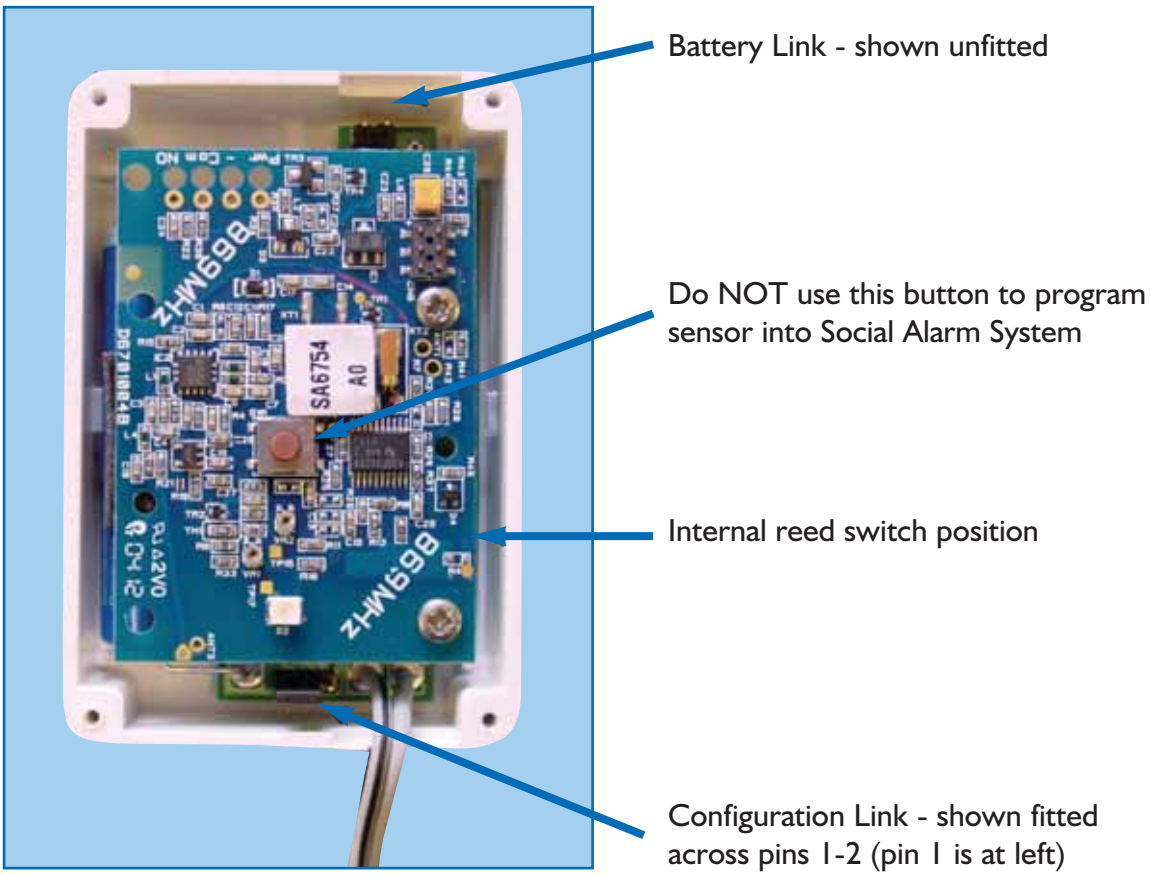
- Select and either enter the known trigger Ident OR press the relevant trigger, press delete
- Exit program mode.

Alternatively go to program mode, choose "list triggers" then scroll to the wanted trigger. Select Info and then delete.

Door Usage Sensor

Technical:

The device is set by applying power from the battery link. This may need to be repeated if the device does not transmit first time.



The configuration link is normally left across pins 1 and 2 for internal reed switch and the external cable discarded.

The internal button MUST NOT be used to assign otherwise it will be seen as a serial TRM and not a door contact.

When used in an intruder system the PnP calls will arrive at a PNC as:

Code 9	0004	Door Contact, unspecified location
Code 9	1004	Door Contact low battery
Code 8	1657	Auto low battery



Trigger Type 08

GS140

Standard pressure mat type GS140 can be used with a radio output module (ROM).

If used with an 869MHz ROM then it can be assigned to Lifeline 400, 4000+ and Telecare TMU as a pressure mat.

Calls generated will follow typical intruder status as follows:

Code 9	0004	Intruder unspecified location
Code 9	1004	Intruder low battery
Code 8	1004	Auto low battery

How to test

Pressure Mat - linked to home unit

Apply pressure to the mat

Pressure Mat – hardwired to speech module

Put the speech module into away mode (intruder on) step on the pressure mat and ensure an intruder alarm call is raised

Radio Pullcord



Trigger Type 09

67005/36

Specification:

Model:	Legrand Momentary Changeover
Fitting:	Ceiling mount
Frequency:	869.2125MHz
Range:	Up to 50 m
Power:	ERP approx 100 uW
Battery:	Non replaceable lithium cells with a 5 year battery life or 20,000 activations
Guide:	D6707032A

General:

- Standard momentary switch connected as normally open contact to drive a radio assembly.
- Requires back box mount and pull cord.
- To be used as a short-range radio assigned trigger input to Tunstall home units.
- Not waterproof.
- Radio device so do not install near metal conductors or power switches.
- Provides code 2 call when triggered.
- Code 5 call given for battery low status
- Code 8 call given for ALB

How to program

Note that programming assumes both home units and PNC are fitted with the latest software to date. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays "register trigger" (red button should flash rapidly).
- Operate the switch.
- Check unit announces "Pullcord trigger registered" and shows "Pull Cord".
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select "triggers"

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Press delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Operate the switch.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep).
- Exit with cancel key.

To delete ALL triggers got to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- Operate the switch.
- Check correct data displayed as per trigger e.g Pull Cord
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

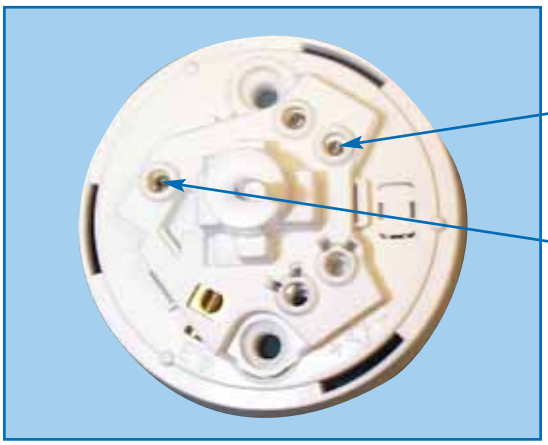
To delete go to program mode home page and scroll to "delete triggers"

- Select and either enter the known trigger Ident OR press the relevant trigger, press delete
- Exit program mode.

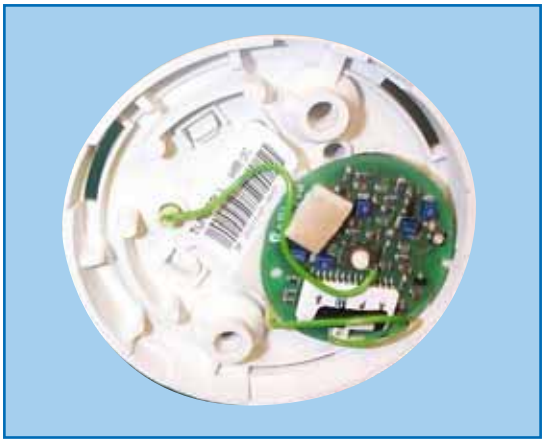
Alternatively go to program mode, choose "list triggers" then scroll to the wanted trigger. Select Info and then delete.

Radio Pullcord

Technical:



Top Housing Internal View



Top Housing Under View

The sensor can be assigned as a P&P device and will generate a code 2 call with unspecified TT92 locations. To enter rooms etc you must set these TT92 locations either manually or via program menus.

The basic calls generated to a PNC are as follows

Code 2	0004	Manual trigger, unspecified location
Code 5	1004	Manual trigger low battery
Code 8	1004	Auto low battery

How to test

Pull the cord and check alarm unit activates.

Trigger Type 10

41005/21



Specification:

Sensor:	Moisture mat S2209050
Activator:	Telecare Interface Module (41005/20) fitted with Enuresis Software
Frequency:	869.2125MHz
Battery:	4 x AA, life 2 years with auto low battery
Guide:	D6707116A
Range:	Up to 50m
Operating temperature:	-10°C to 55°C

General:

The device can assigned P&P into Lifeline 400, 4000+ and TMUs.

Only one connection port issued for the sensor mat (IP4). The mat is normally deployed underneath the top cotton sheet with the SHINY side uppermost.

When correctly set up the unit should transmit when the mat gets wet. It should then be removed from the TIM, dried and re-inserted. To avoid false alarms due to sweating it may be necessary to apply additional sheets over the mat.

How to program

Note that programming assumes both home units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1.Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays “register trigger” (red button should flash rapidly).
- Operate the mat with damp fingers across the terminals.
- Check unit announces “telecare sensor trigger registered” and shows “Incontinence”.
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select “triggers”

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Press delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Wet the mat terminals with damp fingers.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- Wet the mat terminals with damp fingers.
- Check correct data displayed as per trigger e.g Enuresis
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

- Select and either enter the known trigger Ident OR press the relevant trigger
- Exit program mode.

Alternatively go to program mode, choose triggers then scroll to the wanted trigger.
Select Info and then delete.

Technical:

When the batteries are inserted correctly the unit should emit a beep.

The mat must be connected only to the port marked IP4/Prog. Blanking plugs provided must remain in place with the other ports.

When ready to assign, the TIM can be activated by shorting the mat connections with damp fingers. Alternatively carefully short the two inner pins of the IP4 socket.

The calls generated by a PNC in order to display the correct text should be:

Code 6	0067	Incontinence event
Code 6	1067	Incontinence low battery
Code 8	1668	Auto low battery



Trigger Type 11

41005/13

Specification:

Activator:	TIM control unit 41005/12
Sensor:	Mat bed TABS 26500 S2010004
	Mat chair TABS 26000 S2010005
Batteries:	4 x AA with ALB
User Guide:	D4107004A
Installation:	D4107045AExternal Switch: 41005/05
X10Master:	41005/04
X10Lamp Module:	D4106002A
Palm PDA:	41005/16 with SD files
Frequency:	869.2125MHz

General:

- Used to monitor time residents in or out of beds or chairs. Combines with an X10 system that will switch on mains driven lamps when out of bed and switch them off when in bed.
- The Tunstall software must be loaded into the Palm PDA before connection to the TIM control unit.
- Can be used with Lifeline 400, 4000+ and TMUs
- Alarms are recognised as code 6 auxiliary with in or out of bed/chair
- The TIM allows for Auto Low Battery calls with a code 8

How to program

Note that programming assumes both home units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays "register trigger" (red button should flash rapidly).
- With the Palm program go to radio and tap for transmit.
- Check unit announces "telecare sensor trigger registered" and shows "Bed".
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select "triggers"

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Press delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Using the Palm program go to radio and tap on transmit
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

Press cancel key until unit beeps and displays option menu.
Choose and select "Assign Trigger"
Enter relevant dwelling number and OK
Using the Palm program go to radio and tap on transmit.
Check correct data displayed as per trigger e.g Bed
Choose and select wanted configuration and ensure OK
Wait for a few seconds
When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"
Select and either enter the known trigger Ident OR press the relevant trigger, press delete
Exit program mode.

Alternatively go to program mode, choose triggers then scroll to the wanted trigger.
Select Info and then delete.

Technical:

- The TIM control unit has five inputs IP1, IP2, IP3, IP4/Prog and X10

IP1	Used for an extend time button switch. This can extend the duration of the configured absence timers by a pre-set period.
IP2/3	For bed sensor pads
IP4	For connection of program cable to the PDA
X10	For connection of X10 Master Unit

- Unused inputs should always be blanked with the plugs provided.
- The software icon TIM Sensor Tool must be present in the PDA window and opened to show Telecare Sensor Setup. The special cable must then be connected to the TIM before it will beep and launch the bed set up program.
- The following alarm types can be configured:

Absence
An alarm is raised if the resident leaves the bed and does not return within a specified time. Only during the specified active or monitoring times of the day. This could be set as always active for 24 hrs.

Not In Bed
The latest time of the day that the resident can still be out of bed before an alarm is raised (bed unoccupied).

Still In Bed
The latest time of the day that the resident can stay in bed before an alarm is raised (bed occupied).

Monitoring time
Can be set for the period that the above will function, or as always.

X10
If enabled allows the use of the X10 modules to turn lamps on or off after pre-set times.

NOTES

- The resident must be in bed for at least one minute before the sensor will detect changes.
- The PDA should be set to the correct time before configuring.
- The program can be used to read current settings, change and write new settings for the required scenarios.
- Sensitivities for differing weights and thresholds are possible.
- The X10 lights system can be instant or with a dimmer capability.
- The PDA is used to send the radio transmission that is required to assign to the Lifeline or TMU.

NOTE Older PDAs in use require loading withTunstall software 059V0 whereas the Zire and Tungsten PDAs require 059V1

Bed/Chair Occupancy

The calls generated by a PNC in order to display the correct text should be:

Code 6	0015	Not in Bed/Chair
Code 6	1015	Not in Bed/Chair with low battery
Code 6	0016	Not up Bed/Chair
Code 6	1016	Not up Bed/Chair with low battery
Code 6	0017	Bed/Chair absence
Code 6	1017	Bed/Chair absence with low battery
Code 6	0018	Bed/Chair other
Code 6	1018	Bed/Chair other with low battery
Code 8	1019	Auto Low Battery

Recommended positioning:

The Bed Occupancy Sensor should be positioned between the mattress and the base across the bed. The sensor should be placed on the side of the bed where the occupant sleeps. If one person sleeps in a double bed it is advisable that two sensors be used on each side of the bed.

How to test

1. connect the Palm PDA programming unit to the socket marked 'IP4/Prog' on the Telecare Interface Module
2. select radio tab on the menu screen
3. select transmit to raise a test call to the response centre

Trigger Type 12 & 14

67005/45



Specification:

PIR type:	Essence dual element Pyro Ceramic Sensor
Warm Up:	60 seconds
Battery:	Sanyo CR123A 3V Lithium, life span typically 18 months. Includes ALB monitoring.
Test:	Auto walk test upon power up only for 2 minutes IF no activity seen.
Detection:	Wide angle, curtain or pet alley
Option:	Link for standard or entry/exit
Frequency:	869.2125MHz
Operating Temperature:	-10°C to +55°C

General:

- Can be assigned to Lifeline 400, 4000+ and TMUs.
- Accepted as P&P but is always seen by default as a standard PIR even though set as entry/exit type. There is no need therefore to use the switch as selection as it can be done at the host unit.
- Will emit auto tamper alarm calls (once assigned) whenever top cover removed.

How to program

Note that programming assumes both home units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays “register trigger” (red button should flash rapidly).
- Trigger the PIR (see technical section).
- Check unit announces “movement sensor trigger registered” and shows “Standard PIR” or “Entry/Exit PIR”.
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select “triggers”
- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Press delete
- Exit with the cancel key

2. Lifeline 400
- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Trigger the PIR as described.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted
- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

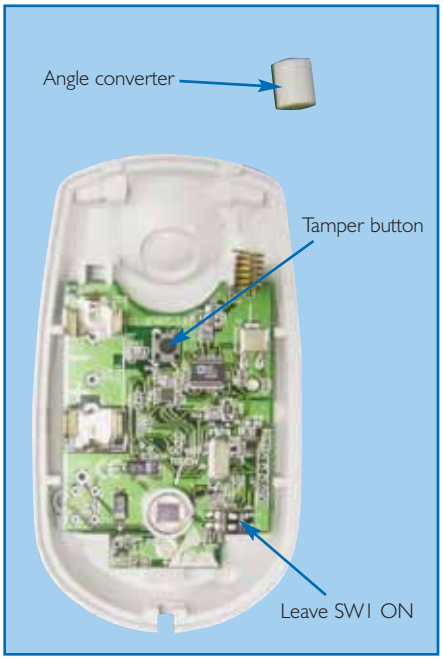
3. TMU
- Press cancel key until unit beeps and displays option menu.
- Choose and select “Assign Trigger”
- Enter relevant dwelling number and OK
- Trigger the PIR as described.
- Check correct data displayed as per trigger e.g PIR Standard or PIR Entry/Exit
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to “delete triggers”
- Select and either enter the known trigger Ident OR press the relevant trigger, press delete
- Exit program mode.

Alternatively go to program mode, choose “list triggers” then scroll to the wanted trigger.
Select Info and then delete.

Technical:
For ease of assignment retain cardboard box.

- To prime the PIR for assignment then remove top cover, insert battery, replace top cover and place in box. Wait for about 60 seconds remove from box and then go into radio assign mode. This will ensure that the tamper switch is disabled and the PIR goes into walk test mode. This mode will last as long as there is movement in front of the PIR. Failure to replace the cover correctly may instigate false tamper calls as soon as assigned. Make sure the tamper plunger is inserted the right way to ensure button pressed.



- The Lifeline 400 would need to go through a particular procedure to change the PIR to entry/exit type whilst the Lifeline 4000+ and TMU have a menu driven display.

- After assignment notice that whilst still in program mode the home units will beep every time the PIR activates.

- The PIR requires about 2.5minutes of nil movement before it will come out of walk test. It will then only send an activation transmission once before requiring a further 2.5m of nil movement. The red LED will also not be illuminated and hence provide for more battery saving.

- PIRs can be utilised in the following ways:

    1. As an inactivity sensor to a specially configured Telecare Overlay system.
    2. As an intruder alert to a normal Telecare Overlay system.
    3. As part of an intruder package with Lifeline 400 and 4000+

NOTE It is important to ensure the tamper plunger is correctly inserted i.e spring nearest the aperture or false calls will result.

The calls generated by a PNC in order to show the correct text should be:

Code 9	0004	Intruder unspecified location
Code 9	1004	Intruder with low battery
Code 8	1004	Auto low battery
Code 6	0009	Tamper
Code 6	1009	Tamper with low battery

Recommended positioning:

PASSIVE INFA RED ENTRY/EXIT (PIR)
The Entry/Exit Pir must be installed along any route used to exit the building. Try not to place in draughts or direct sunlight. (see below)

PASSIVE INFRA RED STANDARD (PIR)
Install 2 metres from the ground. Place in rooms which are not accessed to unset the alarm. Do not place in draughts or sunlight or directly above a radiator. Always leave the PIR in normal mode (not walk test mode) i.e. no flashing red light saves the battery. Use the Pet Alley function if animals are in the property

PIR testing

Intruder monitoring - Put the unit into intruder mode and leave the room/dwelling for 3 minutes, then enter the room and ensure that an alarm call is generated.
Inactivity monitoring – Put the unit into inactivity mode, leave the room/dwelling for the preset time parameter and check that an inactivity call has been generated.

Fall Detector

Trigger Type 13

67005/49



Specification:

Dimensions:	75mm x 53mm x 28mm (W x H x D)
Weight:	75g
Frequency:	869.2125MHz
Range:	In practical environments the range will vary between 20 to 50 meters.
Battery:	Lithium 6v Duracell type PX28L. This is replaceable and expected to have a life of 6 months. Includes ALB monitoring.
Trigger:	Manual button or auto two stage impact switch. First impact activates sensor then second stage identifies orientation.
Alarm:	Audible and visual warning.

General:

- A battery operated device that can be used as a personal manual push button alarm or an auto alarm that detects if you have fallen.
- The device should be worn upright by using suitable accessories.
- **When not being used the device should be placed upright in its freestanding holder.**
- A low battery will be indicated by a flashing red light when the manual button is pressed.
- The device is NOT waterproof.
- There are accessories such as a removable belt clip and a belt plus holster kit.
- The device must be radio assigned to a Tunstall home unit or TMU system before use

How to program

Note that programming assumes both host units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays "register trigger" (red button should flash rapidly).
- Press the manual button.
- Check unit announces "fall detector trigger registered" and shows "Fall Detector".
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select "triggers"

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Press delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Press the manual button.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- Press the manual button.
- Check correct data displayed as per trigger e.g Fall Detector
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

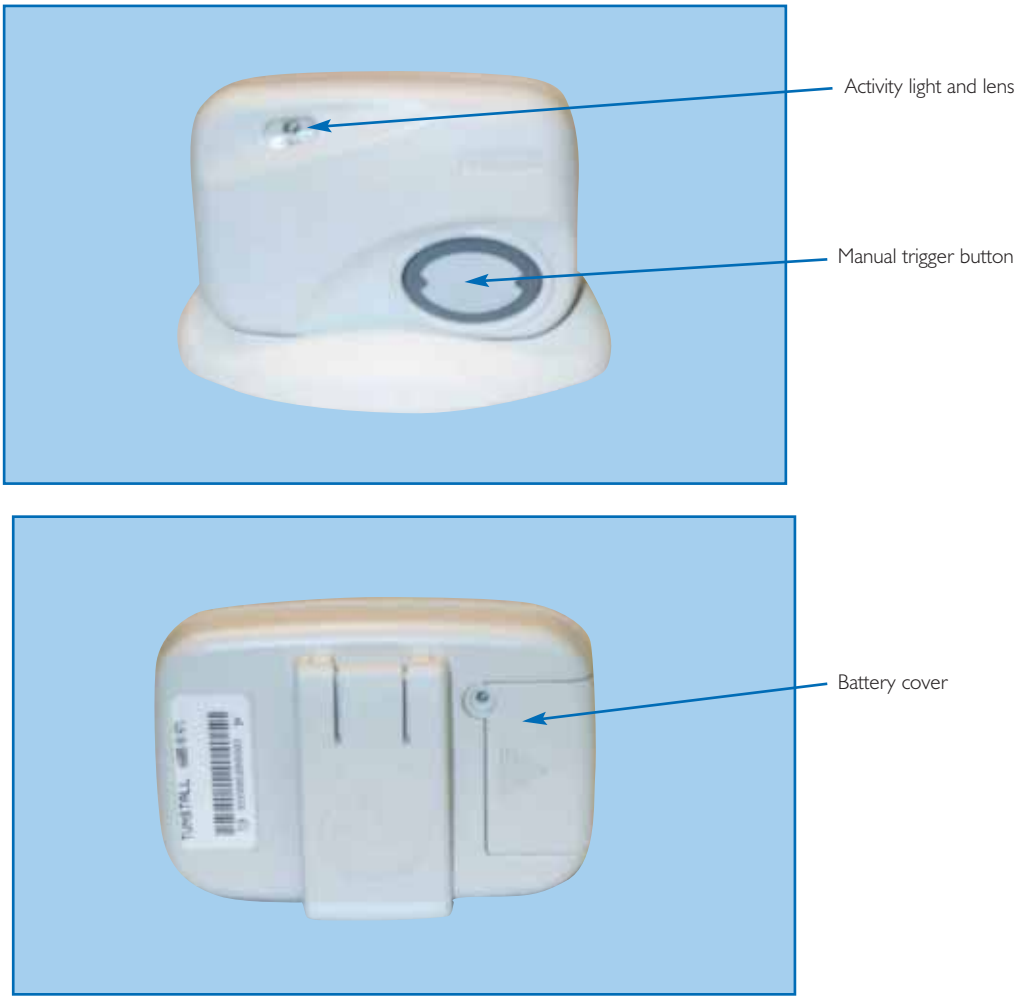
To delete go to program mode home page and scroll to "delete triggers"

- Select and either enter the known trigger Ident OR press the relevant trigger, press delete
- Exit program mode.

Alternatively go to program mode, choose "list triggers" then scroll to the wanted trigger. Select Info and then delete.

Fall Detector

Technical:



The Fall Detector is to be assigned to Tunstall Lifeline 400, 4000+ or TMUs as a P&P device. Simply pressing the manual button will set up as a fall detector.

The basic functions are a manually operated press button that will initiate a code 2 personal alarm and a two stage automatic mercury tilt switch that will initiate a fall alarm. This allows for both a tilt and shock criteria to be in place for a brief moment before an alarm is activated.

On instant battery low status a code 5 alarm is raised.

Automatic fall detection

- Green light and two “beeps” indicates that the fall detector has been activated.
    - The fall detector will then monitor for between 6 and 15 seconds to verify if there could have been a fall. The green light will flash while it does this.
    - If the detector has decided that there is a fall, then a red light and four “beeps” indicates that the fall detector is about to trigger an alarm call (because it has detected an impact and has not been upright for between 6 and 15 seconds).
    - If the detector has decided that it was activated by error then the green flashing light will stop after between 6 to 15 Seconds and the unit will revert to normal again.
    - The fall detector also features a manual button, which can be used at any time to raise a call for help if required.

Manual operation

- Press the button on the fall detector to raise a manual alarm call.
- The fall detector will “beep” and a red light indicates the fall detector is triggering an alarm call.
- If the red light flashes on and off, the fall detector is still triggering an alarm call, but is also indicating to you that the battery needs to be replaced.

NOTES

- If the fallen device is made upright before the red light illuminates then there will be up to 15 seconds of green flashing before the device returns to normal standby.
- The device must be worn at or above the waist.
- Place the device upright when not in use.
- Alarms can be cancelled by making the device upright.
- The device is NOT waterproof
- The device will only operate for sudden shocks.

Once assigned the device will generate the following calls:

Code 2	0092	Fall detector button
Code 5	1092	Fall detector battery low
Code 2	0093	Fall detector fall
Code 5	1093	Fall detector fall and low battery
Code 8	1291	Auto low battery

How to test

Press the button on the fall detector to raise a manual alarm call.

Keyless Access Trigger

Trigger Type 15

67005/57



Specification:

Dimensions:	43.5mm x 47.5mm x 16mm (W x H x D)
Weight:	25g
Frequency:	869.2125MHz
Range:	25m - 50m
Batteries:	Non - replaceable lithium. Battery life 5 years
Options:	Complete with passive neck cord and belt clip. Optional wrist strap
Environment:	Not waterproof but resistant to depth of 1m for 30 seconds.

General:

- Only used for special cases when remote Keyless Access options are required.
- Does not need to be assigned to a host unit
- Given to a Carer under controlled arrangements where the unit Ident number is also known by the monitoring centre.
- Options for use are:

1. Specified trigger.
The Carer is given the device. If an alarm is made to the monitoring centre and the operator decides that a nominated Carer should attend immediately then the device will allow for the door lock to be released remotely. The monitoring centre would program the device Ident into the Lifeline which from then on would if pressed operate the external relay, and hence door lock mechanism, of the Lifeline for a pre set time frame. After this time expires the device reverts back to normal.

2. Unspecified trigger.
The Carer is given the device. If prompted the Carer can phone the residents Lifeline with a mobile. When the unit is heard ringing then pressing the device will auto answer. With a speech channel open the Carer could then enter digit 3 on the mobile which would operate the external relay door lock mechanism.

Technical:

- This option only available on later models of Lifeline 4000+ i.e 36000/447 and 36000/457.
- The option must be used in conjunction with a door lock release mechanism operated via the external relay.
- The options require to be set up in programming

It is possible that some functions such as device low battery warning, device not used in the time frame (non arrival) will be communicated to the monitoring centre.
In this case the PNC will translate the following codes;

Code 8	0078	Carer arrived
Code 8	1078	Carer arrived with low battery
Code 8	0079	Carer non arrival

NOTE The trigger can be assigned to a host unit in certain circumstances not described in this document

Radio Output Module

Trigger Type 16,17,18,19

67005/32



Specification:

Frequency:	869.2125MHz
Battery:	On board non replaceable lithium cell, life 5 years. With ALB monitoring
Dimensions:	H75mm x W51mm x D25mm
Weight:	25g
Range:	Up to 25m
Connection:	Provide 2 core cable of length 1.8m

General:

- Short range universal Radio Output Module (ROM) for connection to a range of devices employing volts free **normally open** contact sets.
- Contact sets must be capable of providing low current and therefore not suitable for heavy duty high amperage contact types that can easily become highly resistive.
- Must be assigned to a host Lifeline 400, 4000+ or Telecare TMU.
- Suitable device types can be manually programmed or left as ROM when using PnP. Up to 4 ROMs can be assigned i.e ROM#1, ROM#2, ROM#3 and ROM#4.
- Will raise a code 2 alarm if left designated as a ROM trigger.

How to program

Note that programming assumes both host units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays "register trigger" (red button should flash rapidly).
- Short the wire input.
- Check unit announces "telecare sensor trigger registered" and shows "ROM#" etc.
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select "triggers"

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Press delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Short the wire input.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select " Assign Trigger"
- Enter relevant dwelling number and OK
- Short the wire input.
- Check correct data displayed as per trigger e.g ROM# 1
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

- Select and either enter the known trigger Ident OR press the relevant trigger, pressd delete
- Exit program mode.

Alternatively go to program mode, choose "list triggers" then scroll to the wanted trigger. Select Info and then delete.

Radio Output Module

Technical:



The maximum amount of trigger cable is 1.8m and is expecting to be connected to a volts free normally open contact set specified for use with currents as low as 10 mA when closed.

The Ident number of the trigger is found on a label inside the device.

If used as a ROM trigger then the PNC will translate to the following codes:

Code 6	0025	Event 1 ROM#1
Code 6	1025	Event 1 ROM#1 with low battery
Code 8	1629	ROM#1 Auto low battery
Code 6	0035	Event 1 ROM#2
Code 6	1035	Event 1 ROM#2 with low battery
Code 8	1639	ROM#2 Auto low battery
Code 6	0045	Event 1 ROM#3
Code 6	1045	Event 1 ROM#3 with low battery
Code 8	1649	ROM#3 Auto low battery
Code 6	0055	Event 1 ROM#4
Code 6	1055	Event 1 ROM#4 with low battery
Code 8	1659	ROM#4 Auto low battery

Trigger Type 20

GS783, GS826





Specification:

- GS783 Type Z10a for natural gas, GS826 type Z10d for propane/butane.
- Internal use only.
- Mains powered.
- Test button for local operation, note output trigger only operates when high levels of gas present and not when button pressed.
- Internal 3A fuse.
- Detector Life: Maximum 5 years.

Programming

The device must be programmed to either Lifeline 400 or models of Lifeline 4000+.
The hardwired input must be used i.e two left hand pins of the underside green connector.

Wire from the detectors output using the COM and NC pins.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Open key lid and enter * 58 *
- Note existing data and remove with the C key
- Enter 0101950000001000 *
- Exit with the cancel key.

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Lift serial phone handset
- Enter * 58 *
- Enter 0101950000001000 *
- Replace handset
- Exit with the cancel key

NOTE The call will be a code 3 smoke but will show text "gas detected"

Technical:

1. For initial installation and full guidance of SF gas devices you should refer to the installation manual provided with the product.

2. The device is mains powered and connects L and N to the left hand terminal (see photo). There is a 3A fuse and power consumption is about 4Watts. A green front panel LED indicates power applied.

3. The 2 wire interconnect terminal can connect in parallel up to 20 devices. If any one device detects gas then all will sound. Care must be taken not to reverse any connection. Pressing the local hush button on a device not exposed to gas will stop the sounder from that device only. Pressing the local hush button on the device that was exposed will shut down all sounders.

4. The relay output has a standard normally closed or open contact set. This relay has indeterminate performance at low currents and is therefore only to be used to trigger NC 869 ROMs or hardwired NC inputs.

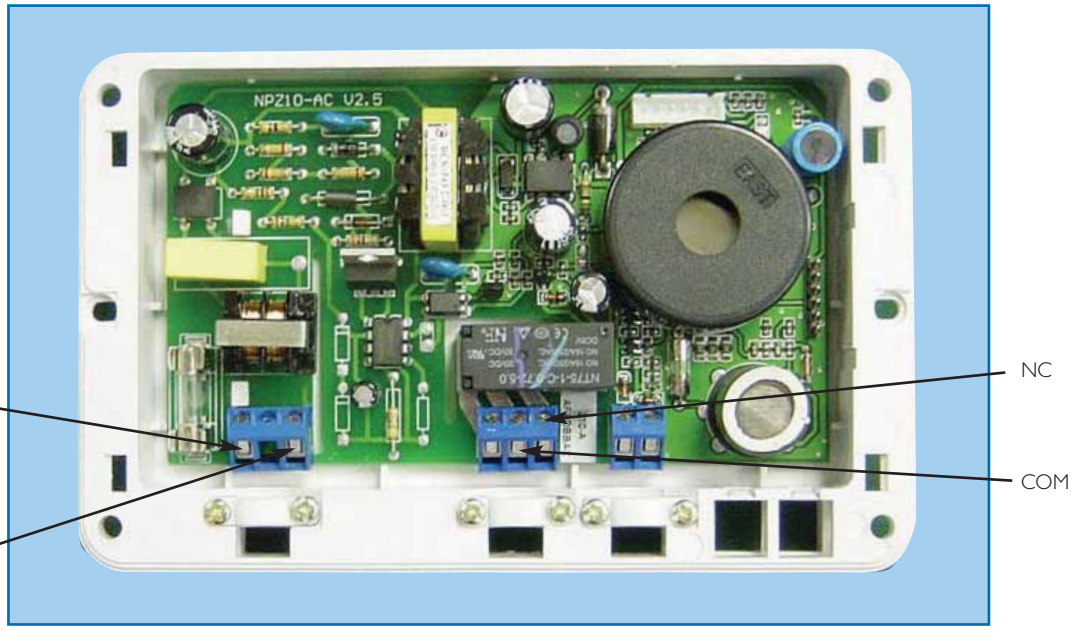
5. The **ONLY** compatible home units are the Lifeline 400 and the latest Lifeline 4000+ i.e models 36000/447 and 457.

6. The front panel is secured by 4 side snap clips that can be released with a narrow object such as a screwdriver. Be aware that there is an orientated 6 pin loom to connect the front panel indicators to the mother board. Note this is not as described in the SF manual.

7. When powered all 3 LEDs should illuminate briefly and the sounder make 5 short chirps. The unit then enters a warm up time where the green LED will flash for about 20 mins. Normal use is when the green LED remains steady.

8. This unit is NOT suitable for external use.

9. The relay output activates only when there is a high level gas alarm so it will be common for users to be able to smell gas before concentrations require an alarm to be made. It does not operate when the test button is depressed.



Operation:

1. The red LED indicates gas detection or test.
   The green LED indicates power applied and warm up mode
   The yellow LED indicates faults.

2. The unit has a two stage alarm state, high and low. When the gas reaches the low level state then the red LED will flash and the sounder alarms at one pulse per second. When the gas reaches the high level state the red LED and sounder will repeat more rapidly.

NOTES:

i. Gas companies add a strong smell to gas in order to detect levels far below the low level stage. It is therefore common to smell gas with the unit inactive.
ii. The unit can detect other flammable gasses, take care to avoid false alarms from aerosols etc.

3. The front button can be used as a self test, a hush button or a unit reset.

- In idle or warm up mode the button if pressed will activate the sounder and the red LED will illuminate (in later units it will flash for 5 secs).
- In high level alarm mode the button if pressed will silence the sounder for 5 minutes.
- After a high level alarm and with gas dispersed, the button if pressed, will reset the unit.

4. Internal faults with the sensor or mother board will be indicated by short regular chirps.

5. It is permitted to test gas detection with the use of the gas from a butane lighter with flint removed held close to the inlet (3 holes bottom right).

All alarms are calibrated, tested and designed to meet the stringent performance requirements of the latest European standard for domestic gas alarms BS EN501942000.

The alarms are calibrated at the factory and do not need re-calibration, maintenance or adjustments. Expect life span 5 years.

Recommended positioning:

The Natural Gas Detector should be installed on a flat wall in the room where the appliance is situated higher that the tallest external door or window but no more than 30 cm from the ceiling and between 1 and 5 metres from the appliance.

How to test

With the green indicator illuminated hold a gas canister, eg cigarette lighter, in the top right hand corner of the detector – slowly release the gas.
Detector life – 5 years

Property Exit Sensor

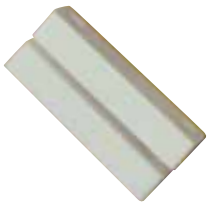


Trigger Type 21

41005/14







Specification:

Activator:	TIM control unit 41005/14
Sensors:	PIR 41005/07
	Key switch 41005/08 plus cable D4105004A
	Magnetic Contacts GS467
	PIR and Contact cables D4105003A
Batteries:	4 x AA with ALB
User Guide:	D4107005A
Installation Guide:	D4107046A
External Switch:	41005/05
X10Master	41005/04
X10Lamp Module	D4106002A
Palm PDA:	41005/16 with SD files
Frequency:	869.2125MHz
Range:	Up to 50m

General:

- Compatible only with Lifeline 400, 4000+ and TMU.
- Control unit connects to a single PIR and a door contact set
- Remote key switch allows for arm and disarm
- Optional input for X10 power equipment.
- Needs a Palm PDA and a Tunstall set up program.

The following alarm conditions can be set up:

1. Client left the property.
An alarm will be raised if the client opens the door and ALSO moves out of range of the PIR for a pre-set time (or does not move), provided the system is enabled. This must also be within the chosen set monitoring period unless set to "always active".
When armed by the key switch the unit will emit a series of beeps as an exit time that can be set to 1,2 or 5 minutes. When disarmed the unit will emit a single beep.

2. Door Open.
This option can be used to raise an alarm if the door is left open for a pre-set time even though the resident is at home and moving.

3. Auto low battery.
If the unit battery fails then a monitor will check for this condition and raise a code 8 warning.

How to program

Note that programming assumes both host units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays "register trigger" (red button should flash rapidly).
- Using the Palm program go to radio and tap on transmit.
- Check unit announces "telecare sensor trigger registered" and shows "Wandering".
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select "triggers"

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Enter delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Using the Palm program go to radio and tap on transmit.
- Check unit beeps with a high tone.
- Exit with the cancel key

- To delete ensure auxiliary phone fitted
- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger with the Palm (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- Using the Palm program go to radio and tap on transmit.
- Check correct data displayed as per trigger e.g Wandering
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

- Select and either enter the known trigger Ident OR press the relevant trigger
- Exit program mode.

Alternatively go to program mode, choose triggers then scroll to the wanted trigger.

- Select Info and then delete.

NOTES:

1. If the batteries are removed for a long period then the sensor may need to be reset for time/date configuration This can be done with the PDA.
2. The Lifeline clock does not affect the operation.
3. The sensor accounts for seasonal time changes.

Installation:

- Connections to the control unit must be as follows:

IP1	key switch
IP2	PIR cable from NO contact
IP3	Door contact set
IP4	Programming Palm
X10	Master

- Unused connections must be blanked.
- The PIR should be fitted above the door that is used for the monitoring.
- The PIR should be in Walk test mode but without led illumination.
- Only use the cables provided.

PIR Connections

The provided cable is fitted to IP2 via a 4 wire plug and connects to the PIR as follows:

Yellow	Power +	Red	Power -
Green	Alarm NO	Black	Alarm COM

Link (power -) to (alarm COM)

Door Contact Connections

The provided cable is fitted to IP3 via a 4 wire plug and connects to the contacts as follows:

Yellow	not used	Red	switch
Green	switch	Black	not used

Key Switch Connections

The provide cable is fitted to IP1 via 3.5mm jack plug

Arm/Disarm Trigger



Trigger Type 22

67005/47

I1 P2

Specification:

Dimensions:	31mm x 58mm x 16mm (W x H x D)
Weight:	20g
Frequency:	869.2125MHz
Range:	25m - 50m
Batteries:	Non – replaceable lithium cells. Cell life 5 years. Includes ALB monitoring
Options:	Complete with passive neck cord and belt clip. Optional wrist strap, pocket clip, key fob.
Environment:	Not waterproof but resistant to depth of 1m for 30 seconds.
Output:	Approx 1.5uW

General:

- Used only as a special arm or disarm trigger for intruder systems.
- Can be assigned as P&P only to Lifeline 400 or 4000+
- With the intruder system enabled then this trigger will provide instant remote arming or disarming of all intruder protected zones.

This trigger may initiate an auto low battery condition resulting in a call to a PNC translated as

Code 8 1010

How to program

Note that programming assumes both host units and PNC are fitted with the latest software to date. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays "register trigger" (red button should flash rapid).
- Press the button.
- Check unit announces "telecare sensor trigger registered" and shows "Arm/Disarm".
- Exit with the cancel key.

To delete go to program mode and select "triggers"

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Press delete
- Exit with the cancel key

1. Lifeline 400

- Ensure serial phone connected
- Press cancel key until unit beeps (red button should flash slowly)
- Press cancel key until unit beeps (red button should flash rapidly)
- Press the trigger
- Check unit beeps with a high tone
- Lift handset of serial phone
- Key in code 6415
- Exit with cancel key
- Replace handset

Bogus Caller Button

Trigger Type 23

67005/08





Specification:

Models:	67005/05 standard Gem 64000/12 mounting bracket
Dimensions:	43.5mm x 47.5mm x 16mm (W x H x D)
Weight:	25g
Frequency:	869.2125MHz
Range:	Up to 25m
Batteries:	Non - replaceable lithium. Battery life 5 years with ALB monitoring
Options:	Complete with passive neck cord and belt clip. Optional wrist strap
Environment:	Not waterproof but resistant to depth of 1m for 30 seconds.

General:

- Mounted on a special bracket near to the main door this trigger, if pressed raises a silent alarm to the monitoring centre as a bogus caller.

- A standard Gem must be assigned to a Lifeline 400 or 4000+ but whilst STILL in program mode then the code 6004 must also be entered, or trigger type reconfigured using on screen menu.

- If using a Telecare TMU then after assigning as a personal trigger you should configure with TT92 code 06.

This trigger will generate calls to a PNC translated as:

Code 9	0006	Bogus Caller
Code 9	1006	Bogus Caller low battery
Code 8	1006	Auto low battery

How to program

Note that programming assumes both host units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays "register trigger" (red button should flash rapidly).
- Press the trigger button.
- Check unit announces "personal trigger registered" and shows "Personal".
- With the menu scroll text to "Panic/Bogus"
- Exit with the cancel key.

To delete go to program mode and select "triggers"

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Enter delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Press the button.
- Lift handset and key in 6004
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- Press the button.
- Check correct data displayed as per trigger e.g Personal
- Enter code 06 as configuration and OK
- Wait for a few seconds.
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

- Select and either enter the known trigger Ident OR press the relevant trigger, press delete
- Exit program mode.

Alternatively go to program mode, choose "list triggers" then scroll to the wanted trigger. Select Info and then delete.

Electrical Usage Sensor

Trigger Type 24

41005/22



Specification:

Frequency:	869.2125MHz
Power:	13A fused
Battery:	Internal lithium 5 years life with ALB monitoring
Dimensions:	180 x 70 x 60 (HxWxD)
Range:	Up to 20 metres

General:

- Use to connect electrical appliances that need to be monitored for switch off or switch on times.
- Data collected and used as part of a MIDAS system where stored data is forwarded to a remote server network.
- Can be assigned only to Lifeline 4000+
- Assigned as P&P only by switching appliance on or off.
- This trigger may initiate a call to a PNC only for low battery and should be translated as follows:

Code 8	1637	Auto low battery

How to program

Note that programming assumes both host units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays “register trigger” (red button should flash rapidly).
- With the device plugged in connect an electrical apparatus, such as a kettle, and then disconnect or switch device off and on.
- Check unit announces “telecare sensor trigger registered” and shows “Electrical Usage”.
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select “triggers”

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Press delete
- Exit with the cancel key

Medication Dispenser

Trigger Type 26

67005/60



Specification:

Sensor:	Med O Wheel Smart
Frequency:	869.2125MHz
Batteries:	2 x AA life 1 year
Options:	67005/61 14 dose carousel
	67005/62 spare 28 dose carousel
	67005/63 lock
Manual:	D6707125B

General:

- Medication dosage reminder that can be radio assigned to a Lifeline 400, 4000+ or TMU. The alarm is raised if the dose is not taken after 2 hours from required time.
- Dosage and time set ups to be carried out only by qualified personnel.
- Allows a check of when next dose is due.
- Allows medication to be taken up to one hour before dose is due
- Provides for reminder beeps

Programming

To program the cover needs to be removed by pulling latch down and rotating cover anti-clockwise

To Set Current Time

- Press and hold button 1 until display flashes and orange LED flashes.
- Set hours minutes with buttons 2 and 3
- Exit by holding down button 1 for 3 secs

To Set Volume

- Press and hold button 1 until display flashes and orange led flashes.
- Press button 1, see C:28
- Press button 1, see L:xx where xx is the volume level
- Change level with button 3
- Exit by holding down button 1 for 3 secs.

To Set Dose Times

Note only 4 doses per day allowed with a minimum of 4 hours between each.

- Press and hold button 1 until display flashes and orange LED flashes.
- Press button 1, see C:28
- Press button 1, see L:xx where xx is the volume level
- Press button 1, see clock and dose digit 1
- Set hours minutes with buttons 2 and 3
- Press button 1 to next dose digit and repeat
- Exit by holding down button 1 for 3 secs

Assign Mode

- Press button 2 for 2 seconds then press button 1. The red LED should flash to indicate a transmission.

How to program

Note that programming assumes both host units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays "register trigger" (red button should flash rapidly).
- Press and hold the middle button down for 2 seconds until you hear a beep and time is displayed.
- Press the left button and check red LED flashes.

- Check unit announces "telecare sensor trigger registered" and shows "Med Dispenser".
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select "triggers"

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Enter delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Press the middle button down for 2 seconds until you hear a beep and time is displayed.
- Press the left button and check red LED flashes.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate trigger (unit should beep)

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

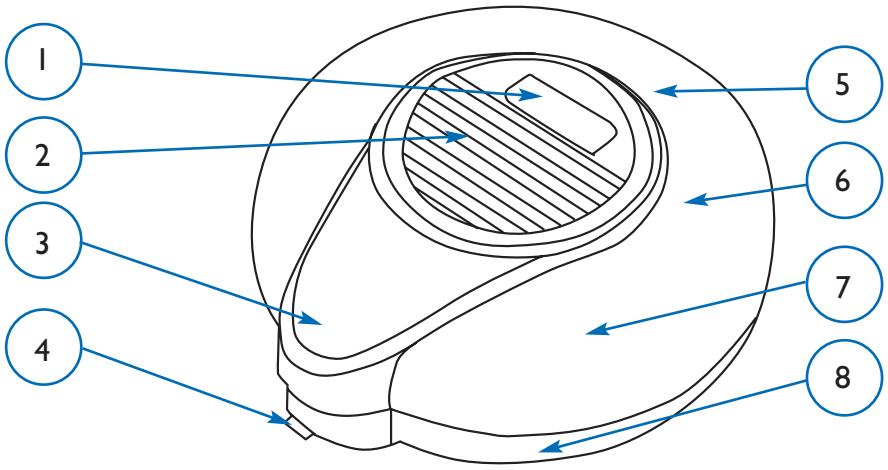
- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- Press the middle button down for 2 seconds until you hear a beep and time is displayed.
- Press the left button and check red led flashes.
- Check correct data displayed as per trigger e.g Medication
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

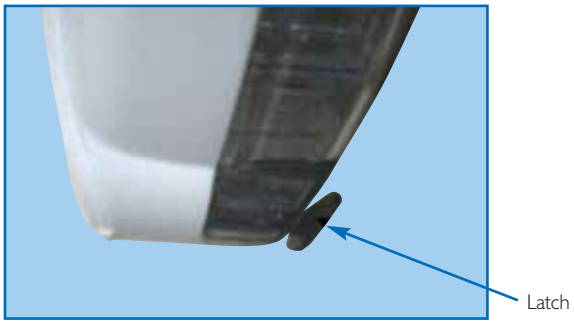
- Select and either enter the known trigger Ident OR press the relevant trigger
- Exit program mode.

Alternatively go to program mode, choose triggers then scroll to the wanted trigger.
Select Info and then delete

Technical:



1 Display
2 Main button
3 Lid
4 Latch pin
5 Cover
6 Carousel (inside dispenser)
7 Battery compartment (under unit)
8 Base



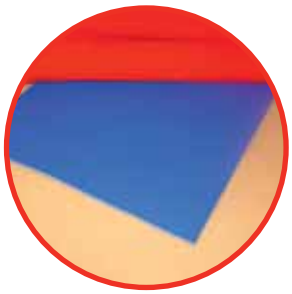
- To check when the next medication is due press the main button. As long as the next due time is more than 1 hour away then the time will be displayed. If less than 1 hour then the dispenser will activate to provide access.
- A reminder of 10 beeps will be heard at the due time and then 3 beeps every 15 minutes for 2 hours.
- If dosage not taken after 2 hours then an alarm will be raised.

NOTE You must press the main button to get the dose tray to spin

Epilepsy Sensor

Trigger Type 28

67005/59





Specification:

Control Unit:	Emfit D-1090 (41000/05) 89 x 68 x 29mm, weight 150g
Bed Sensor:	L- 2060, (41000/04) 200 x 580mm, weight 160g
Radio Transmitter:	ROM 67005/65
Frequency:	869.2125MHz
Radio Transmitter battery:	Lithium 5 year (15,000 operations) cell with ALB monitoring
Power:	Mains adapter model P-028B, 12V dc 500mA
ERP:	200uW
Range:	Up to 50m
Operating Temperature:	-10°C to 55°C

General:

- Combines state of the art epilepsy control unit and sensor mat to a Tunstall coded radio trigger. Trigger will activate on epileptic seizure status as recognised by the control unit.
- Although the D-1090 can also detect hyperventilation and bed presence these are not part of the Tunstall set up.
- The control unit provides for audible alarm and relay output to the AUX port which is where we connect the ROM.
- Can be P&P assigned to Lifeline 400, 4000+ and TMU

How to program

Note that programming assumes both host units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays "register trigger" (red button should flash rapidly).
- Activate the sensor alarm.
- Check unit announces "telecare sensor trigger registered" and shows "Epilepsy Sensor".
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select "triggers"

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Enter delete
- Exit with the cancel key

2. Lifeline 400

- Press cancel key until unit beeps (red button should flash slowly).
- Press cancel key until unit beeps (red button should flash rapidly).
- Activate the sensor alarm.
- Check unit beeps with a high tone.
- Exit with the cancel key

To delete ensure auxiliary phone fitted

- Go to program mode
- Lift handset of phone and key 3000 (unit should beep)
- Activate the sensor alarm (unit should beep)
- Exit with the cancel key

To delete ALL triggers go to program mode then insert pencil into aperture for underside volume control. Keep button pressed until unit beeps twice.

3. TMU

- Press cancel key until unit beeps and displays option menu.
- Choose and select "Assign Trigger"
- Enter relevant dwelling number and OK
- Activate the sensor alarm.
- Check correct data displayed as per trigger e.g Epelipsy Sensor
- Choose and select wanted configuration and ensure OK
- Wait for a few seconds
- When back to the home page exit with the cancel key.

To delete go to program mode home page and scroll to "delete triggers"

- Select and either enter the known trigger Ident OR press the relevant trigger
- Exit program mode.

Alternatively go to program mode, choose triggers then scroll to the wanted trigger.

- Select Info and then delete.

Epilepsy Sensor

Technical:

- Control unit on/off switch also provides a manual reset for when the device has been triggered.
- Green LED steady indicates power on, slow flash indicates device noticed convulsions, rapid flash indicates alarm state.
- Yellow led indicates presence on the bed.
- Volume control adjusts for local sounder.
- Exit delay only used for bed presence monitoring so not relevant.

Set Up

Switch on by keeping the on button pressed for 4 seconds. The green led should light steadily.

Check DIP switches 1 to 4 all off (down).

Check sensitivity set to mid position.

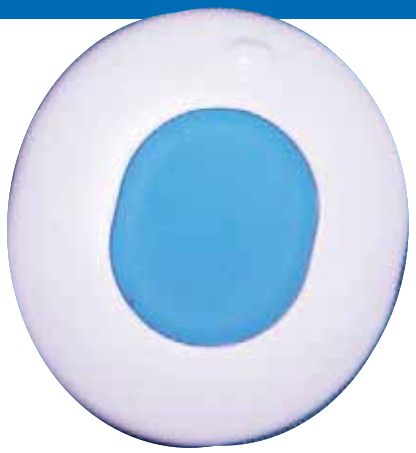
Ensure mat is in place otherwise adjustments and alarm transmissions will be spurious.

Lay on the bed and check yellow led lights, Wait for at least 10 seconds for the sensor to settle and check yellow led does not go out for long periods. If the yellow LED goes off for long periods then adjust sensitivity (max sensitivity is clockwise). If set too high clockwise then the led will remain on even if nobody is on the bed.

Check that rapid movement will cause the alarm to activate and trigger the Lifeline. This can be done by rapidly tapping the sensor mat with the fingertips.

The alarms generated at the PNC will be translated from the following:

Code 6	0075	Epilepsy event
Code 6	1075	Epilepsy event battery low
Code 8	1677	Auto low battery



Trigger Type 29

67005/48

I1 P2

Specification:

Dimensions:	43.5mm x 47.5mm x 16mm (W x H x D)
Weight:	25g
Frequency:	869.2125MHz
Range:	25m - 50m
Batteries:	Non - replaceable lithium. Battery life 5 years
Options:	Complete with passive neck cord and belt clip. Optional wrist strap
Environment:	Not waterproof but resistant to depth of 1m for 30 seconds.
ERP:	100uW

General:

- A dedicated trigger used in combination with intruder systems only.
- Provides for the arming of zone 1 ONLY, for example arming downstairs when upstairs is occupied.

How to program

Note that programming assumes both host units and PNC are fitted with the latest software. Variations to the procedures may result if this is not the case.

1. Lifeline 4000+

- Press cancel key until unit beeps and displays/announces local programming mode (red button should flash slowly).
- Press cancel key until unit beeps and displays “register trigger”. (red button should flash rapidly).
- Press the button.
- Check unit announces “ telecare sensor trigger registered” and shows “Zone Arm Trigger”.
- With the menu keys set room location as required.
- Exit with the cancel key.

To delete go to program mode and select “triggers”

- Scroll to relevant trigger taking care to match with the trigger Ident written on the internal label.
- Press delete
- Exit with the cancel key

1. Lifeline 400

- Ensure serial phone connected
- Press cancel key until unit beeps (red button flashers slowly)
- Press cancel key until unit beeps (red button flashes rapidly)
- Press trigger an check unit beeps
- Lift handset
- Key in code 6003
- Exit with cancel key
- Replace handset

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