



Smart Technology, Made to Care

# CairFall

Fall Detector

Programming  
Guide V1.1



**The CairFall is an interoperable, intelligent and easy to configure Fall Detector which can be worn on the wrist or around the neck.**

The clever CairFall allows individuals to move around their home confidently, knowing that an alert will be raised if they suffer a hard fall. It also allows the user to manually call for help. There are five sensitivity settings to suit all levels of activity. The CairFall also features an optional cancellation period and a choice of three radio protocols.



## Operation

The CairFall is an interoperable, intelligent and easy to configure Fall Detector which can be worn on the wrist or around the neck. The clever CairFall allows individuals to move around their home confidently, knowing that an alert will be raised if they suffer a hard fall. It also allows the user to manually call for help. There are five sensitivity settings to suit any level of activity. The CairFall also features an optional cancellation period and a choice of three radio protocols.

Please read these instructions fully before attempting to use the CairFall.

**Important:** To reduce the risk of false alarms, the CairFall is designed to pick up heavy falls only, although not every fall of this type will be detected. For this reason, whenever the user needs assistance they should always press the button on the CairFall if possible.

## Sensitivity Levels

The CairFall has 5 sensitivity levels. Level 1 is the least sensitive and level 5 is the most sensitive. The default is level 3.

As a general rule, to reduce the possibility of false alarms, the least sensitive levels should be used with more active users and the most sensitive levels with less active individuals.

Although if a user experiences false alarms no matter how active they are, the sensitivity level should be adjusted towards the least sensitive levels, preferably one increment at a time until the ideal level is reached. The opposite is true too - if the level isn't sensitive enough, adjust it towards the more sensitive levels.

## Wearing Options

The CairFall can be worn in two ways - on the wrist or around the neck. The elastic strap can be adjusted to suit the user's wrist. The CairFall should be worn on the non-dominant wrist. If the neck cord is preferred, remove the spring bars which hold the wrist strap in place, and use them to secure the neck attachment.

## Switching the CairFall On

1. To exit transport mode and to switch the CairFall on, press the button 5 times in quick succession. The blue LED will flash each time the button is pressed.
2. Shortly after the 5th press, the amber LED will flash a number of times to indicate the programmed sensitivity level, after which the CairFall will switch on.
3. To check it has successfully switched on, press the button, the green LED (the LED will flash red if the battery is low) will flash and the motor will vibrate followed by a radio message a few seconds later.

## Entering Transport Mode

Transport mode should be used when keeping the CairFall in storage, and also when access to the programming menu is required.

1. To enter transport mode, press the button 5 times in quick succession, holding the button in on the 5th press.
2. While holding the button in, the green LED will flash and a radio message will be sent, followed by the blue LED flashing rapidly to confirm that the CairFall has entered transport mode. Release the button after the blue rapid flashes. If the blue LED doesn't flash rapidly, please repeat the process.
3. To check the CairFall has successfully entered transport mode, press the button - the blue LED will flash with every press.

## Raising a Manual Alarm Call

To raise an alarm call, simply press the button. The green LED will flash and the motor will vibrate followed by a radio message a few seconds later.

**Note:** If the LED is red when the button is pressed, the battery is low.

## Programming the Sensitivity Levels, Cancel Options and Protocols

Please read the steps below before programming as the CairFall quickly leaves the Programming Menu if no button is pressed.

1. Enter transport mode by following the steps in the Entering Transport Mode section (page 2). Ensure that the blue LED flashes every time the button is pressed.
2. To enter the programming menu, press the button 7 times. Shortly after the 7th press, the green LED will flash rapidly.
3. The amber LED will flash a number of times to indicate the existing sensitivity level.
4. The white LED will illuminate for 5 seconds. During this time, press and release the button to match the sensitivity level or option number you would like to select, i.e. Once for No.1, twice for No.2, etc. The LED will flash every time the button is pressed. Note: If the button isn't pressed at this time, the red LED will flash rapidly and the CairFall will leave the programming menu within a few seconds.
5. Shortly after the last button press, the amber LED will flash to indicate the selected number.
6. The red LED will then flash rapidly and the CairFall will leave the programming menu.
7. **Protocol options only:** The LED will then flash rapidly in various colours.
8. Repeat steps 2-6 if more programming is required.
9. When finished programming, switch the CairFall on by following the steps in the Switching On section on page 2.

**Tip:** Refer to the flowchart on page 5 for an alternative explanation of the Programming Menu.

## Sensitivity Levels & Cancel Options

**No.1.** Sensitivity Level 1 (least sensitive)

**No.2.** Sensitivity Level 2

**No.3.** Sensitivity Level 3 (default)

**No.4.** Sensitivity Level 4

**No.5.** Sensitivity Level 5 (most sensitive)

**No.6.** Cancellation Period Off

**No.7.** Cancellation Period On (default)

## Protocol Options

The CairFall is an interoperable device with three built-in radio protocols. The protocols can be programmed by following the same steps as detailed in the 'Programming the Sensitivity Levels and Cancel Options' section above. The number of button presses required to program the protocols has intentionally been set high and spaced apart to avoid accidental programming.

**No.15.** Tunstall

**No.20.** TeleAlarm

**No.25.** Appello

## Cancelling a Fall

When the CairFall assumes a fall has occurred, an alert will be sent after 4 seconds if the cancellation period is switched off, or 24 seconds if the cancellation period is switched on.

When the cancellation period is switched on, a fall alert can be cancelled within 24 seconds by pressing the button 3 times in quick succession. The amber LEDs should stop flashing shortly after the 3rd press.

**Note:** Fall alerts cannot be cancelled when the cancellation period is switched off. If cancellation is attempted, two radio messages will be sent by the CairFall - the fall first, followed by the button press.

## Assigning the CairFall to a Notifier or other telecare system

1. Ensure the CairFall is switched on.
2. Prepare the Notifier/other system by entering registration mode.
3. Activate the CairFall by pressing the button.
4. The Notifier/other system should acknowledge the new device.

**Note:** The above steps are sufficient to register both the button and fall functions to a Tunstall compatible system. For TeleAlarm and Appello systems, both functions must be registered separately, so repeat steps 2-4 to register the fall function.

## Simulating a Fall

To test the CairFall, hold the device in your hand, or wear it on your wrist. Raise your arm up above your head then drop your arm naturally - don't force your arm down, just let gravity take over. The CairFall should start flashing and vibrating immediately to indicate it has detected a fall. Repeat this process if the CairFall doesn't activate.

## CairFall Quick Guide

Once you've read the full guide and are familiar with the CairFall, this handy page contains everything you need...

### LED Indication When Button Pressed

Blue LED - Transport Mode.

Green LED - Switched on and battery is good.

Red LED - Switched on and battery is poor.

### Switching On, Transport Mode and Programming Menu

**Switching the CairFall On** - Press the button 5 times.

**Entering Transport Mode** - Press the button 5 times, holding on the 5th press until the blue LED flashes rapidly.

**Entering Programming Menu** - Press the button 7 times while in transport mode.

### General Usage

**Raising a manual call** - Press the button once.

**Simulating a fall** - Raise your arm up above your head then drop it naturally - don't force your arm down, just let gravity take over. The CairFall should start flashing and vibrating immediately to indicate it has detected a fall.

**Cancelling a fall** - Press the button 3 times.

To ascertain the programmed Sensitivity Level (there are 2 ways to do this)

- **Switch the CairFall On** - The amber LED will flash to indicate the sensitivity level.
- **Enter the Programming Menu** - After the green rapid flashes, the amber LED will flash to indicate the sensitivity level.

### Programming the CairFall

1. Ensure the CairFall is in transport mode.
2. Enter the programming menu by pressing the button 7 times.
3. The amber LED will flash to indicate the existing sensitivity level.
4. While the white LED is illuminated, press the button to match your desired sensitivity level or cancel option.
5. Shortly after the last button press, the amber LED will flash to indicate the selected number.
6. The red LED will then flash rapidly and the CairFall will leave the programming menu.
7. Repeat steps 2-6 if programming another sensitivity level or cancel option.

### Sensitivity Levels and Options

**Press once** - Sensitivity Level 1 (least sensitive)

**Press twice** - Sensitivity Level 2

**Press 3 times** - Sensitivity Level 3 (**default**)

**Press 4 times** - Sensitivity Level 4

**Press 5 times** - Sensitivity Level 5 (most sensitive)

**Press 6 times** - Cancellation Period Off

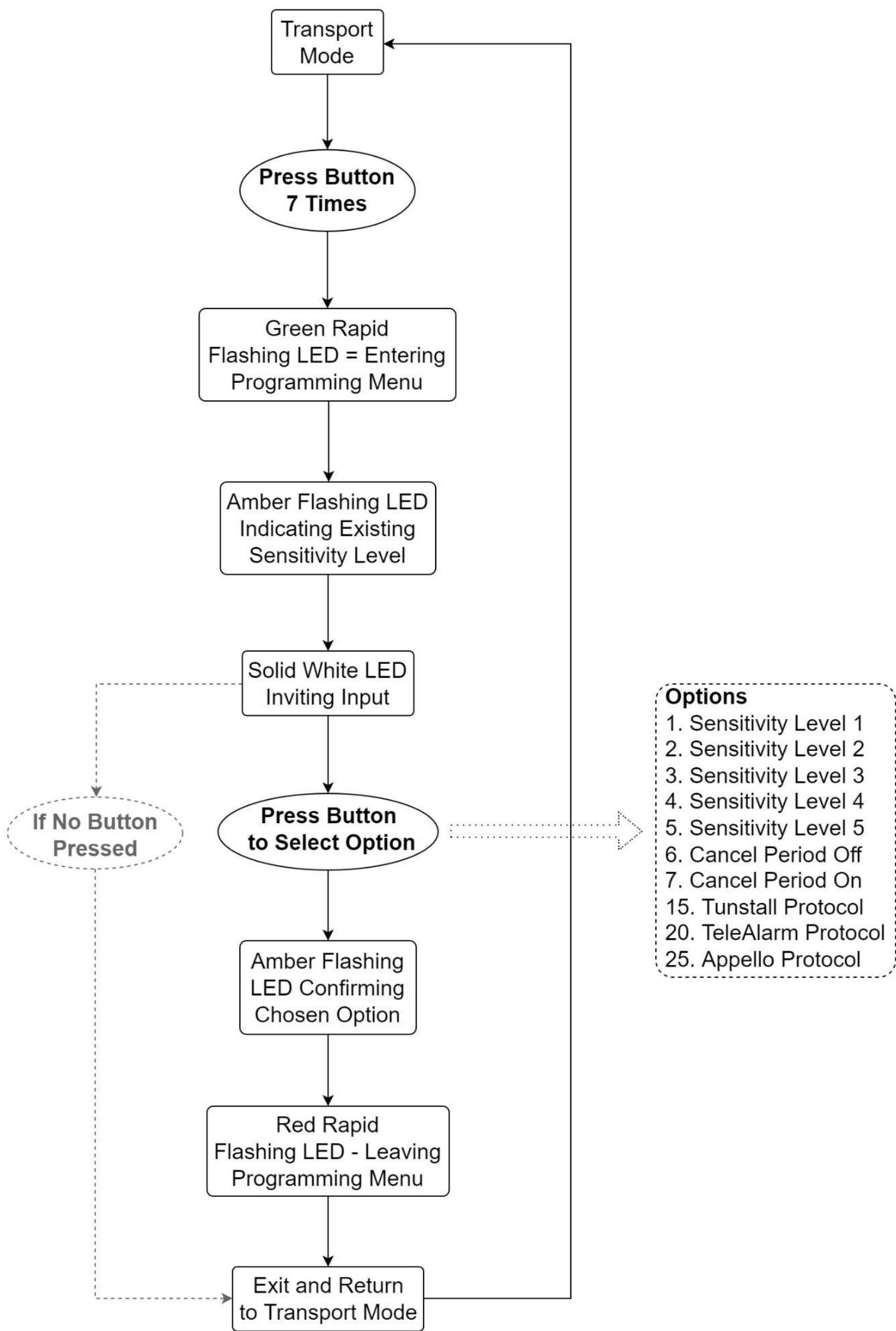
**Press 7 times** - Cancellation Period On (**default**)

**Press 15 times** - Tunstall Protocol (**default**)

**Press 20 times** - TeleAlarm Protocol

**Press 25 times** - Appello Protocol

# Programming Menu Flowchart





Specifications

Compatibility	Tunstall / TeleAlarm / Appello
Operating Frequency	869 MHz
Dimensions	H50mm x W40mm x D14mm
Replaceable Battery	2 x 2016 Coin Cell
Battery Life	9-12 Months
Auto Low Battery	Battery tested daily
Wearing Options	Wrist and neck worn
Wireless Range	300m line of sight
Waterproof	IP67 standard
Operating Temp.	-10°C to +55°C
Compliance	CE / RoHS 2 / RED
Warranty	12 months

Battery Replacement

Under normal usage, the battery should last around 9-12 months. Two 2016 coin cell batteries should be used to ensure maximum battery life. These should be purchased directly from Cair as we weld a metal tag to each cell which helps ensure a solid battery contact in the CairFall. Before starting, ensure you make a note of how the user wears the CairFall to ensure you replace the casing back to the correct position.

To access the batteries, a T6 screwdriver should be used to unscrew all four screws on the rear of the casing. When the rear casing has been removed, gently prise up the circuit board at each corner using a screwdriver or suitable tool, being careful not to damage the electronics.

When you have lifted the board from the casing, you will notice a small gap on the white plastic underneath the battery compartment. Use your small tool to gently push the batteries out of the compartment, and you should then be able to remove them fully using your fingertips.

Prepare both new batteries, one on top of each other. With the battery compartment facing you, place the new batteries inside with the + side facing towards you on both batteries. The LEDs will flash briefly when the new batteries have been inserted.

On the opposite side of the board, press the small button in the middle. It will flash blue to confirm the battery has been replaced successfully. If there is no LED, then the batteries have not been replaced correctly

When returning the board to the casing, ensure the small LED above the small button on the board is positioned in line with the small hole for the LED on the front casing. Press the grey button on the front casing to ensure the blue LED is displaying correctly. Once you have confirmed this, replace the rear cover and turn the screws until they're firm, but not too tight. The CairFall will now be in transportation mode. Once finished, ensure the programmed settings are still correct and test the CairFall as normal.

Packing for shipment

The equipment containing cells or batteries must be packed in strong rigid packaging and must be secured against movement within the outer packaging to prevent accidental activation. The sender's name and return address must be clearly visible on the outer packaging.

Safety

Do not dismantle or alter the unit. Do not open the case, unless replacing battery.

Disposal

All electronic waste should be disposed of in accordance with the latest legislation. It must be disposed of within the electrical and electronic waste stream and not be disposed of in the normal waste stream. Recycling electrical waste products help to conserve natural resources and prevent adverse effects on the environment. Contact your supplier should you require more information.

