

The cover features a dark gray background with three large, bright green diagonal stripes. The stripes are positioned from the top-left to the bottom-right, with one stripe on the left, one in the middle, and one on the right. The text is white and sans-serif.

//ANGEL React

# Manual

User Manual

Manual, Version ENU 1.3, 03/2026

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# Table of contents

|          |                                                  |           |
|----------|--------------------------------------------------|-----------|
| <b>1</b> | <b>Introduction</b>                              | <b>6</b>  |
| 1.1      | About this manual                                | 6         |
| 1.1.1    | Symbols and conventions                          | 6         |
| 1.1.2    | List of warnings                                 | 7         |
| 1.2      | About ANGEL React                                | 7         |
| 1.2.1    | Shirt system/Clip system                         | 8         |
| 1.2.2    | Watchdog                                         | 8         |
| 1.2.3    | Restart Inhibit                                  | 8         |
| 1.2.4    | Location Beacon                                  | 8         |
| 1.2.5    | Designated use                                   | 9         |
| 1.2.6    | ATEX-certification of the Genius ATEX            | 9         |
| 1.3      | About the emergency call chain                   | 9         |
| 1.3.1    | How the emergency call chain works               | 10        |
| 1.3.2    | Emergency contacts                               | 10        |
| 1.4      | Help Coordination Portal                         | 11        |
| 1.5      | Understanding colors and icons                   | 11        |
| 1.5.1    | Colors in Genius and app                         | 11        |
| 1.5.2    | Icons of the ANGEL React App                     | 13        |
| 1.6      | Care instructions of the ANGEL React T-Shirt     | 14        |
| 1.7      | Disposal instructions                            | 15        |
| <b>2</b> | <b>Safety</b>                                    | <b>16</b> |
| 2.1      | Safety instructions                              | 16        |
| 2.1.1    | General instructions                             | 16        |
| 2.1.2    | Environmental conditions                         | 16        |
| 2.1.3    | Notes for safe operation                         | 17        |
| <b>3</b> | <b>Shirt and Clip system</b>                     | <b>18</b> |
| 3.1      | Scope of delivery                                | 19        |
| 3.1.1    | ANGEL React Shirt system                         | 19        |
| 3.1.2    | ANGEL React Clip system                          | 20        |
| 3.2      | System setup                                     | 21        |
| 3.2.1    | Downloading the app                              | 21        |
| 3.2.2    | Putting on the Shirt or Clip                     | 22        |
| 3.2.3    | Pairing                                          | 22        |
| 3.2.4    | Registering                                      | 23        |
| 3.2.4.1  | Setting up emergency contacts                    | 23        |
| 3.2.4.2  | Changing emergency contacts                      | 23        |
| 3.3      | Operation                                        | 24        |
| 3.3.1    | Daily use                                        | 24        |
| 3.3.2    | Emergency detection                              | 25        |
| 3.3.2.1  | No Motion                                        | 25        |
| 3.3.2.2  | Fall accident                                    | 26        |
| 3.3.2.3  | Electrical accident (only with the Shirt system) | 26        |

|          |                                                                                      |           |
|----------|--------------------------------------------------------------------------------------|-----------|
| 3.3.2.4  | Task Timer                                                                           | 26        |
| 3.3.2.5  | Manual alarm                                                                         | 27        |
| 3.3.2.6  | False alarm                                                                          | 28        |
| 3.3.3    | Data and settings                                                                    | 28        |
| 3.3.3.1  | Changing data                                                                        | 28        |
| 3.3.3.2  | Settings                                                                             | 28        |
| 3.3.4    | Updates                                                                              | 29        |
| 3.4      | New pairings/sharing                                                                 | 29        |
| 3.4.1    | Pairing an already used Genius with a new smartphone                                 | 29        |
| 3.4.1.1  | Pairing an already used Genius with a new smartphone of the same user                | 29        |
| 3.4.1.2  | Pairing an already used Genius with the smartphone of a new user in the same company | 29        |
| 3.4.1.3  | Pairing an already used Genius with the smartphone of an user in a different company | 30        |
| 3.4.2    | Pairing an already used app with a new Genius                                        | 30        |
| 3.4.3    | Handover: sharing a Genius with other users                                          | 30        |
| 3.4.3.1  | First registration                                                                   | 30        |
| 3.4.3.2  | Genius handover in daily use                                                         | 31        |
| 3.4.3.3  | Troubleshooting                                                                      | 31        |
| 3.5      | Technical data                                                                       | 32        |
| <b>4</b> | <b>Watchdog</b>                                                                      | <b>33</b> |
| 4.1      | Usage                                                                                | 33        |
| 4.1.1    | Switching functionality                                                              | 33        |
| 4.1.2    | IPS                                                                                  | 34        |
| 4.2      | Safety                                                                               | 35        |
| 4.3      | Scope of delivery                                                                    | 35        |
| 4.3.1    | Watchdog                                                                             | 35        |
| 4.3.2    | QR Codes                                                                             | 36        |
| 4.3.3    | Connection cable                                                                     | 36        |
| 4.3.4    | Optional components                                                                  | 37        |
| 4.4      | System setup                                                                         | 37        |
| 4.4.1    | Starting the ANGEL React system                                                      | 37        |
| 4.4.2    | Mounting (optional intermediate step)                                                | 37        |
| 4.4.3    | Wiring                                                                               | 38        |
| 4.4.4    | Connecting a Genius to a Watchdog                                                    | 38        |
| 4.4.4.1  | Connection for users                                                                 | 38        |
| 4.4.4.2  | Connection for administration/updates                                                | 39        |
| 4.5      | Operation                                                                            | 39        |
| 4.5.1    | Daily use                                                                            | 39        |
| 4.5.2    | Color display of the Watchdog                                                        | 39        |
| 4.5.3    | Emergency detection                                                                  | 40        |
| 4.5.4    | Removing the Genius-Watchdog connection                                              | 40        |
| 4.5.5    | Disabling the IPS function                                                           | 40        |

|           |                                                        |           |
|-----------|--------------------------------------------------------|-----------|
| 4.6       | Technical data                                         | 41        |
| <b>5</b>  | <b>Restart Inhibit</b>                                 | <b>42</b> |
| 5.1       | Safety                                                 | 43        |
| 5.2       | Scope of delivery                                      | 43        |
| 5.3       | Installation                                           | 44        |
| 5.3.1     | Connection to the Watchdog                             | 45        |
| 5.3.2     | Connections inside the Restart Inhibit                 | 45        |
| 5.4       | Operation                                              | 46        |
| 5.4.1     | Color display of the Restart Inhibit                   | 46        |
| 5.4.2     | Emergency detection                                    | 46        |
| 5.5       | Servicing                                              | 48        |
| 5.5.1     | Replacing fuses                                        | 48        |
| 5.5.1.1   | Backup fuse for the voltage supply of the safety relay | 48        |
| 5.5.1.2   | Fuses of the emergency-off circuit                     | 48        |
| 5.5.2     | Taking the Watchdog out of operation                   | 49        |
| 5.6       | Technical data                                         | 49        |
| 5.6.1     | Operating conditions                                   | 49        |
| 5.6.2     | Connections                                            | 49        |
| <b>6</b>  | <b>Indoor Positioning System (IPS)</b>                 | <b>51</b> |
| 6.1       | About IPS                                              | 51        |
| 6.1.1     | Designated use                                         | 51        |
| 6.1.2     | Components                                             | 51        |
| 6.1.3     | Planning                                               | 52        |
| 6.2       | Location Beacon as part of IPS                         | 53        |
| 6.2.1     | Safety                                                 | 53        |
| 6.2.2     | Scope of delivery                                      | 54        |
| 6.2.3     | Installation                                           | 54        |
| 6.2.3.1   | Mounting                                               | 54        |
| 6.2.3.2   | Connection to power supply                             | 55        |
| 6.2.3.3   | Connection to the ANGEL React system                   | 55        |
| 6.2.4     | Operation                                              | 56        |
| 6.2.4.1   | Daily use                                              | 56        |
| 6.2.4.2   | Operating the system                                   | 56        |
| 6.2.5     | Technical data                                         | 57        |
| <b>7</b>  | <b>Legal information</b>                               | <b>58</b> |
| <b>8</b>  | <b>Declarations of conformity</b>                      | <b>59</b> |
| <b>9</b>  | <b>FAQ</b>                                             | <b>60</b> |
| <b>10</b> | <b>Support</b>                                         | <b>65</b> |

# Introduction

Thank you for opting for *ANGEL React*. We developed these systems to increase your safety at work, and to ensure that you can receive assistance as quickly as possible in the event of an emergency.

## 1.1 About this manual

This manual is intended to familiarize you with the *ANGEL React* equipment and its handling. It describes what you must consider when using *ANGEL React* for the first time, as well as during daily usage.

It also contains important instructions for the safe, proper, and efficient use of your equipment. Following the instructions in this document will help you to prevent danger, repair costs, and avoid possible down time due to incorrect use.

This manual is to be supplemented by existing national safety standards for accident prevention and environmental protection.

Please read this manual carefully before working with *ANGEL React*.

### 1.1.1 Symbols and conventions

In this document, the following symbols and formatting styles are used:

| Symbol/format                                                                                     | Description                                                                                                     |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| ✓                                                                                                 | Conditions to be met before starting a task                                                                     |
| ►                                                                                                 | Instructions that can be carried out in any order                                                               |
| 1.<br>2.                                                                                          | Instructions that have to be carried out in the given order<br>1. Step<br>2. Step<br>2.1 Substep<br>2.2 Substep |
| ➔                                                                                                 | Expected outcome of a step/task                                                                                 |
| <b>Text in bold</b>                                                                               | Text shown on a device, its display or in a software                                                            |
| <i>Text in italics</i>                                                                            | ADRESYS product name                                                                                            |
|  / <b>Note:</b> | Additional information, explanations, or tips                                                                   |

### 1.1.2 List of warnings

The following symbols indicate safety instructions for avoiding hazards.

#### DANGER



Failure to observe the relevant safety instructions will result in serious injury or even death.

#### WARNING



Failure to observe the relevant safety instructions may result in serious injury or even death.

#### CAUTION



Failure to observe the relevant safety instructions may result in minor or moderate injury.



Consider cybersecurity warnings and notes to ensure availability and integrity of your systems and to prevent security issues like data leak or data loss.

## 1.2 About ANGEL React

The *ANGEL React* system detects emergencies during day-to-day work and places an emergency call immediately and automatically via the *ANGEL React* App. Depending on the configuration, previously defined emergency contacts are informed via text messages, e-mails, and an automated voice call about the emergency and the location of the person using the system. This way, the emergency contacts can help immediately.

Follow the QR code to our homepage to get additional information about our products and company.



### 1.2.1 Shirt system/Clip system

*ANGEL React* is based on the Shirt system or the Clip system.

The Shirt system detects:

- Motionlessness
- Fall accidents
- Elapsed Task Timer
- Manual alarm (App/Genius)
- Electrical accidents



The Clip system detects:

- Motionlessness
- Fall accidents
- Elapsed Task Timer
- Manual alarm (App/Genius)



The **ANGEL React Clip system** can be used with either a clip or smart workwear. For more information about smart workwear contact us at [angelreact@adresys.com](mailto:angelreact@adresys.com).

The Shirt or Clip system can be supplemented with the following *ANGEL React* components:



Watchdog



Restart Inhibit



Location Beacon

### 1.2.2 Watchdog

The Watchdog is an additional component of *ANGEL React* and only works in combination with a Shirt or Clip system. In an emergency, the system (Genius) sends a signal to the Watchdog, that triggers an emergency-off circuit. The potential-free contact can also be integrated into an automation system or it can be used to start a siren.

The Watchdog also provides IPS functionality and can be used as a Location Beacon.

### 1.2.3 Restart Inhibit

The *ANGEL React* Restart Inhibit is required in addition to the Watchdog if you are using it in combination with an existing stationary emergency-off circuit that does not feature its own restart lock.

The Restart Inhibit enables the Watchdog to be correctly connected to an existing emergency-off circuit.

### 1.2.4 Location Beacon

The *ANGEL React* Location Beacon is a device that enables location determination as part of an IPS installation. IPS stands for Indoor Positioning System and it helps to find an injured person in case of an emergency alarm more quickly by providing the *ANGEL React* system with accurate indoor location information.

IPS provides location information especially for areas which lack a stable GPS signal (e.g., cellars, tunnels, buildings). It can also extend GPS and provide additional location information to better and faster locate users, e.g., by telling the room name and floor level inside an office building.

**1.2.5 Designated use**

*ANGEL React* is a system to increase safety at work.

*ANGEL React* does not offer protection against electrical accidents, fall accidents or other kinds of accidents. Always use your *ANGEL React* system as an additional safety measure.

*ANGEL React* is no medical device as defined in the Regulation (EU) 2017/745 of 05/25/2017. It is not designed or intended for the diagnosis, prevention, monitoring, or treatment of diseases, injuries, or for other medical purposes.

*ANGEL React* is no personal emergency signal system as defined in prenorm DIN VDE V 0825-1 or -11, and it is no PPE as defined in Regulation (EU) 2016/425.

**1.2.6 ATEX-certification of the Genius ATEX**

The *ANGEL React* Genius ATEX can be used in explosive hazardous areas according to the following certification:

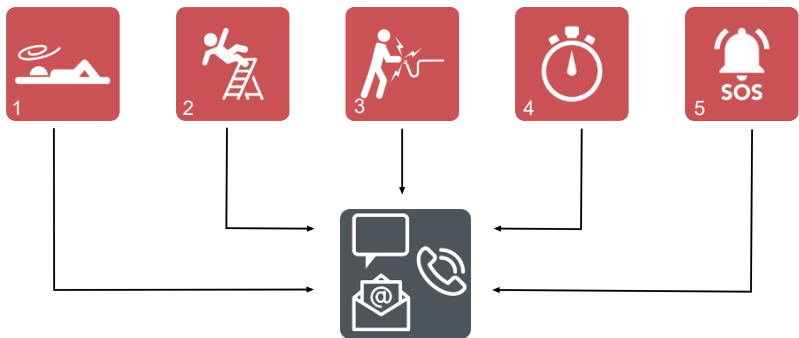
 II 3G Ex ic IIB T4 Gc

 II 3D Ex ic IIIB T135 °C Dc

For more information about the Genius ATEX, please read the manufacturer information.

**1.3 About the emergency call chain**

*ANGEL React* detects emergencies while working and activates the emergency call chain.



|   |                                          |   |                           |
|---|------------------------------------------|---|---------------------------|
| 1 | No Motion (motionlessness)               | 4 | Elapsed Task Timer        |
| 2 | Fall accident                            | 5 | Manual alarm (App/Genius) |
| 3 | Electrical accident (Shirt system only!) |   |                           |

### 1.3.1 How the emergency call chain works

After the detection of an emergency and depending on the configuration, the *ANGEL React* App sends text messages, e-mails, and an automated voice call to your emergency contacts. They shall inform the emergency responders and help you straight away if possible. Your location information will also be sent to them.

#### The following will happen

- The Genius and your smartphone raise an optical and audible alarm to draw attention to your emergency.
- Your emergency contacts receive text messages, e-mails (depending on your configuration), and an automated voice call.
  - Text messages (and optional e-mails) inform the emergency contacts about the incident and provide a link to the Help Coordination Portal (see chapter [Help Coordination Portal](#) (page 11))
  - The automated voice call draws additional attention to the emergency.
- Ideally, your emergency contacts will be able to provide immediate assistance.

### 1.3.2 Emergency contacts

Using an *ANGEL React* system, you need to define emergency contacts.

Emergency contacts are people who can help you immediately in case of an emergency.

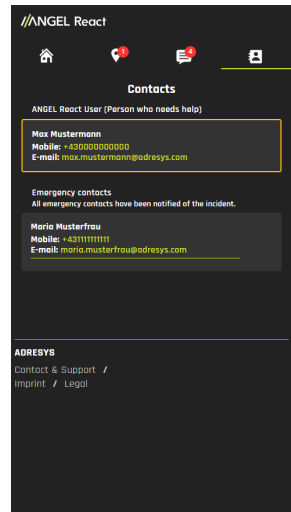
You choose your own emergency contacts, and you can change them at any time depending on your company's policy.

Typical emergency contacts are:

- Team colleagues or team leaders
- Company first responders or receptionist
- People you know in a social context.

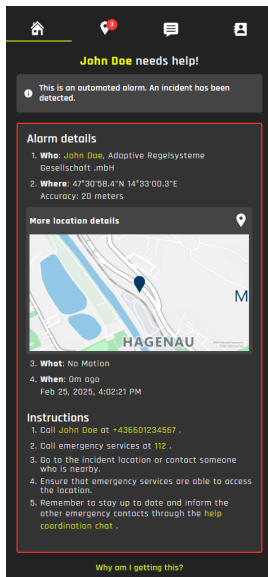
The responsibilities of your emergency contacts after an emergency message are the following:

- Call you, clarify the situation, decide what type of assistance is needed.
- Initiate appropriate assistance if you do not answer their call, for example:
  - Call emergency responders and pass on information from the emergency text.
  - Verify your last known location and help directly on site.



Your emergency contacts do not have to install the *ANGEL React* App on their smartphone.

## 1.4 Help Coordination Portal



During an emergency alarm, your emergency contacts receive a link to the Help Coordination Portal.

- The portal provides detailed information about the incident including a corresponding link to Google Maps.
- It provides your emergency contacts with recommendations for action (the recommendations may vary on a case-to-case basis).
- It is possible to communicate via this portal:
  - The person raising the alarm can send information about their status.
  - The emergency contacts can inform each other and the person raising the alarm about their actions.

Please note:

- During an incident the emergency contacts must check the Help Coordination Portal and must also continue to check their text messages for updates.

You can always get to your Help Coordination Portal via **Emergency Call -> Emergency Info** in your *ANGEL React* App. There you can find all incidents within the last week, all chats within the last day and your emergency contacts.

## 1.5 Understanding colors and icons

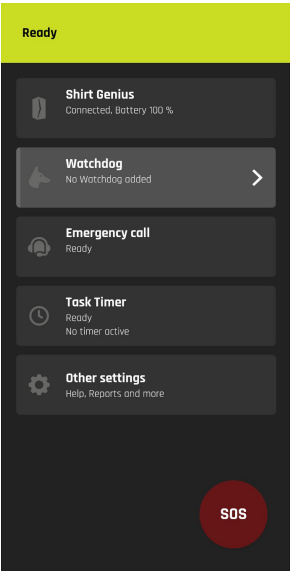
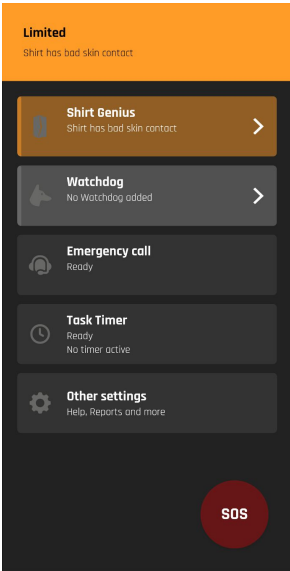
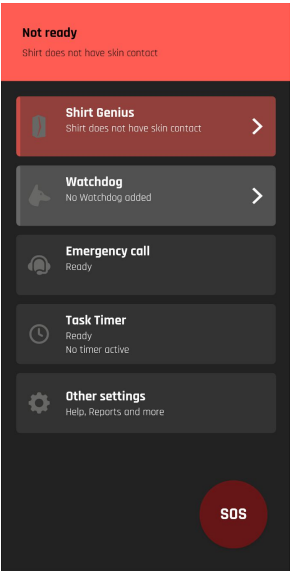
### 1.5.1 Colors in Genius and app

Our colors provide information about the *ANGEL React* system and reflect its status. The Genius and the app communicate using the same color.



Please note that the Watchdog works with colors that are different from the ones on Genius and app. For more information, refer to section [Color display of the Watchdog](#) (page 39).

Colors in Genius and app

| Green - READY                                                                    | Orange - LIMITED                                                                                                                                                  | Red – NOT READY                                                                          |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Genius and app are working correctly.                                            | There are problems. Note the status message in the app.                                                                                                           | The system is not working correctly.<br><br>Action is required. Note the status message. |
|  |                                                                                  |        |
| <b>Genius: blue flashing</b><br><b>PAIRING MODE</b>                              | The Genius has to flash blue before pairing.<br><br>You will find more information about pairing mode in section Pairing.                                         |                                                                                          |
| <b>Genius: all colors</b><br><b>FIRMWARE UPDATE</b>                              | Stop working and wait until the update is complete (up to a few minutes). We recommend connecting the smartphone and the Genius to power supply during this time. |                                                                                          |

Colors of the Genius on the charging station

|                |                                                              |
|----------------|--------------------------------------------------------------|
| Constant red   | Battery is not charging properly, try cleaning the contacts. |
| Green flashing | Battery is charging.                                         |
| Constant green | Battery is full.                                             |

### 1.5.2 Icons of the ANGEL React App

|                                                                                     |                                      |                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Genius                               | The Shirt or Clip Genius is the brain of the system and processes all the data that is recorded by the sensors.                                                                                                                                                                                                                                                                               |
|    | <i>Optional: Watchdog</i>            | An activated Watchdog can set actions after an incident like interrupting the electrical circuit it is connected to.                                                                                                                                                                                                                                                                          |
|    | Emergency call                       | Here you can find information about the following: <ul style="list-style-type: none"> <li>• Account details and location information</li> <li>• Emergency contacts</li> <li>• A function to raise a test alarm</li> <li>• A link to Help Coordination Portal</li> </ul>                                                                                                                       |
|    | Task Timer                           | The Task Timer can be used in the following situations: <ul style="list-style-type: none"> <li>• For activities involving increased risk</li> <li>• If your smartphone has no data connection</li> </ul> The start of a Task Timer is transferred to the server. If you do not acknowledge a pre-alarm after the timer has elapsed, an alarm can be triggered even without a data connection. |
|    | Other settings                       | Here you can find the following and more: <ul style="list-style-type: none"> <li>• All kind of system settings</li> <li>• Information about your devices</li> <li>• Information about your location</li> <li>• A QR code scanner</li> </ul>                                                                                                                                                   |
|    | <i>Optional: electrical accident</i> | <i>The ANGEL React Shirt system detects an electrical accident by measuring the voltage drop between both upper arms.</i>                                                                                                                                                                                                                                                                     |
|  | Fall accident                        | ANGEL React detects a free fall with impact. If this is followed by motionlessness, the system assumes a fall accident.                                                                                                                                                                                                                                                                       |
|  | No Motion                            | ANGEL React detects motionlessness if you do not move for an extended period.                                                                                                                                                                                                                                                                                                                 |

1.6 Care instructions of the ANGEL React T-Shirt

|                                                                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |  |  |  |
| Gentle wash cycle                                                                | Do not tumble dry                                                                 | Do not dry clean                                                                  | Do not bleach                                                                     | Do not iron                                                                       |

- 1. Remove the Shirt Genius and the Genius cradle before washing.
- 2. Do not turn the shirt inside out when washing to protect the electrodes.
- 3. Put the shirt in a laundry bag to ensure a longer service life.
- 4. Wash the shirt with color detergents; it is not necessary to use special detergents.
- 5. Spin the shirt at no more than 1200 rpm.
- 6. Do not tumble dry or iron the shirt because of its electrical components.

The functionality of the shirt may be impaired by mechanical stresses, as well as detergent deposits during the washing cycle.

## 1.7 Disposal instructions

An *ANGEL React* Shirt can be disposed of in the same way as conventional textiles. You should ideally check your national regulations for the disposal of textiles.

### Disposal of the electronic devices



At the end of its service life, do not dispose of the electronic devices of your *ANGEL React* system (Genius, Watchdog, Restart Inhibit, Location Beacon and their accessories) with your household waste!

### WARNING

#### Risk of injury due to a defect battery of the Genius



The Genius must not be transported if the lithium-ion battery is smoking, unusually hot or shows any other sign of a defect.

- ▶ Contact the fire department and ask for advice.
- ▶ Ask for advice on the battery's correct disposal (e.g., from our support)

### Disposal for customers in EU countries (including the European Economic Area)

The electronic devices of the *ANGEL React* system (e.g., Genius, Watchdog, charging station) are subject to the EU Waste Electrical and Electronic Equipment Directive 2012/19/EU (WEEE directive).

These devices can generally be disposed of where other electronic devices are disposed of (e.g., waste salvage center, recycling center). As part of our legal obligations under the above legislation, we also offer to take back the equipment, and ensure that it is correctly disposed of by authorized recycling agents.

### Disposal for customers outside the European Economic Area

Contact the relevant authorities and inquire about the environmental regulations applicable in the respective country. Disposal of the electronic devices of the *ANGEL React* system must always take place in accordance with the applicable regulations.

# Safety

This chapter contains important instructions for the safe, proper, and efficient use of *ANGEL React*. Any use of *ANGEL React* other than that described in this manual, or the respective Quick Start Guides is improper use. Improper use may impair the safety of the equipment and result in property damage or personal injury. It could invalidate warranty claims.

- Read this manual carefully before using *ANGEL React*.
- If you are working with a Genius ATEX additionally read the according manufacturer information carefully.
- Contact our support if you do not understand any of the instructions in this document.
- Follow all the safety instructions, warnings, and other instructions in the manual.
- Only use *ANGEL React* in compliance with all applicable company-specific rules, national and international safety regulations, and regulations on accident prevention, occupational safety, and environmental protection.
- Only use *ANGEL React* and any accessories according to the instructions in this manual.
- Always keep the manual and the respective Quick Start Guide ready to hand when you are using *ANGEL React*.

The following safety instructions apply to all *ANGEL React* products.

The safety instructions applying to the individual products can be found in the respective Quick Start Guides, manufacturer informations and chapters of this manual.

## 2.1 Safety instructions

### 2.1.1 General instructions

- ▶ Comply with the workflows described in this document. Avoid interruptions or distractions that could affect safety.
- ▶ Only use *ANGEL React* if the circumstances permit.
- ▶ Do not allow the use of the *ANGEL React* system to distract you from your immediate surroundings and activity.
- ▶ If your *ANGEL React* system or any accessory does not seem to function properly, do not use it. If in doubt contact our support.
- ▶ Contact our support immediately if you become aware of problems or damage.

### 2.1.2 Environmental conditions

- ▶ Do not use the *ANGEL React* system under ambient conditions that exceed the temperature and humidity limits listed in the manual/Quick Start Guide.
  - Do not expose the Genius to extreme heat or direct sunlight (e.g., inside a closed car).
  - Protect the electronic components against moisture and high levels of humidity.
- ▶ Do not use your *ANGEL React* system in the presence of explosive gas, explosive dust or vapors, unless you are working with the Genius ATEX. For more information about the Genius ATEX read the manufacturer information.
- ▶ Only use your *ANGEL React* system if the circumstances permit.

### 2.1.3 Notes for safe operation

- ▶ Do not open the system components of your *ANGEL React* equipment.
- ▶ Do not continue to use any *ANGEL React* device if its housing is damaged. A broken housing presents risk of injury and malfunction. Specifically, there is risk of touching dangerous voltages or injury due to sharp edges.
- ▶ Do not continue to use any *ANGEL React* device if its cables are damaged.
- ▶ In the event of a malfunction of the Genius, immediately remove it from your work wear and contact our support. A Genius malfunction may be indicated by smoke or an unusual odor.
- ▶ Do not deliberately induce voltage contact: Any *ANGEL React* equipment does not protect you against voltage contact or electrical accidents, it can just reduce the damage.

# Shirt and Clip system

*ANGEL React* is based on the Shirt system and the Clip system. Both work with a Genius and an app.

Both versions of the *ANGEL React Genius* are electronic data processing units that detect motionlessness and fall accidents, but only the Shirt Genius also detects electrical accidents. The Genius forwards information to the *ANGEL React App* via Bluetooth®. Your personal data is attached to the Genius.



There is also a Genius ATEX for explosive hazardous areas classified as <Ex> II 3G Ex ic IIB T4 Gc and <Ex> II 3D Ex ic IIB T135 °C Dc. For more information, read chapter Certifications: PPE and ATEX and the according manufacturer information.

The **ANGEL React App** runs on your smartphone. It is used for configuration and carries out the emergency communication.

## The ANGEL React Shirt system

In addition to Shirt Genius and app, the *ANGEL React Shirt* system includes a smart shirt.

Electrodes in the upper arm cuffs of the shirt detect when voltage is flowing through your body.

The Shirt Genius is clicked onto the left upper arm.

The *ANGEL React Shirt* system detects:

- **Electrical accidents**
- No Motion (motionlessness)
- Fall accidents
- Elapsed Task Timer
- Manual alarm (App/Genius)



## The ANGEL React Clip system

For using the *ANGEL React Clip* system, the Clip Genius is attached to a belt, waistband, etc. with its holder.

It can also be used with smart workwear like smart trousers and be fixed in their cover pocket.

The *ANGEL React Clip* system detects:

- No Motion (motionlessness)
- Fall accidents
- Elapsed Task Timer
- Manual alarm (App/Genius)





If you use an *ANGEL React* Shirt system, it is possible to use the Shirt Genius as a Clip Genius. To do so, ask your *ANGEL React* sales partner to order a *ANGEL React* Accessory-Switch-Clip to fix the Genius on your workwear.

## CAUTION

### Risk of injury due to unsuitable Genius



If you use a Clip Genius on an *ANGEL React* Shirt, the *ANGEL React* App will not work properly. In such a case, the app will notify you.

- Take care to always combine your *ANGEL React* Shirt system with a Shirt Genius.

## 3.1 Scope of delivery

Check that all the listed components are included in your delivery.

If anything is missing, contact our support.

### 3.1.1 *ANGEL React* Shirt system

## DANGER



### Danger of suffocation through shirt packaging

- To avoid danger of suffocation, keep the plastic bag of the *ANGEL React* T-Shirt away from babies and children.

Purchasing an *ANGEL React* Shirt system, you will receive the following components:

- *ANGEL React* T-Shirt
- Shirt Genius Starter Package: According to your order this will be one of the following Genius:
  - Shirt Genius with accessories
  - Genius ATEX with accessories

### *ANGEL React* T-Shirt

- 1 Cuffs with integrated electrodes
- 2 Electrically conductive textile cable (integrated into the back of the T-Shirt)
- 3 Shirt Genius
- 4 Cradle for the Shirt Genius
- 5 Place for a logo



### **ANGEL React Shirt Genius Starter Package**

In your Starter Package you can find the following:

- Shirt Genius
- Charging station for Shirt Genius with cable and power supply unit.
- Two cradles for attaching the Shirt Genius to the *ANGEL React* T-Shirt.

### **ANGEL React Genius ATEX Starter Package**

In your Starter Package you can find the following:

- Genius ATEX
- Charging station for the Genius ATEX with cable and power supply unit.
- Depending on your order an *ANGEL React* clip (holder) for attaching the Genius ATEX to a waistband, belt, etc.



Only the following components are approved for use in an explosion hazardous area connected with the Genius ATEX:

*ANGEL React* clip (holder)

### **3.1.2 ANGEL React Clip system**

#### **ANGEL React Clip Genius Starter Package**

In this Starter Package you can find the following:

- Clip Genius
- Charging station for the Genius with cable and power supply unit.
- *ANGEL React* clip (holder) for attaching the Clip Genius to a waistband, belt, etc.



If you ordered smart trousers, your starter package will come along without a clip (holder).

## 3.2 System setup

You will need to carry out the following steps before you can use your *ANGEL React* system for the first time. Schedule half an hour for this task.



Both the Genius and your smartphone should at least be charged 30% to carry out the commissioning process. The Genius is supplied to you charged but place it in the charging station during setup to be on the safe side.

### DANGER

#### Serious health consequences with implanted medical devices



The integrated magnetic contacts in the Genius may affect the reliability of other electronic devices if they are worn too close to the heart.

- Consult a doctor before using the *ANGEL React* Shirt system if you wear a pacemaker, defibrillator, or other implanted electronic devices. Clarify whether the small, imperceptible currents in the microampere range could impair the function of these devices.

#### 3.2.1 Downloading the app

You will need to install the *ANGEL React* App on your smartphone in order to use your *ANGEL React* system.

- Download the *ANGEL React* App using the QR code shown. The app is supported by Android from 7.1.1, iOS from 14.



Switch your Smartphone to Bluetooth® mode. You need Bluetooth® LE (4.2 or higher). You can find a list of smartphone models on which the *ANGEL React* App will not run on our website (FAQ).

Your *ANGEL React* App will ask you for the following permissions. Here is why:

- **BLUETOOTH®:** This maintains the connection between the Genius and the app.
- **LOCATION:** During an emergency alarm, your location is sent to the emergency contacts in form of GPS data so you can be found.
- **VOICE CALLS/TEXT MESSAGES:** During an emergency alarm, depending on your smartphone model, the emergency contacts might be notified by text messages directly from your smartphone in addition to the other notifications from our server.

Also necessary is the following:

- Turn off the battery saver option.
- Ignore the battery optimization.

The *ANGEL React* App uses very little battery charge but does run constantly in background mode while you are using it. Battery optimization would automatically turn off the app since you are not actively using it for long periods.

### 3.2.2 Putting on the Shirt or Clip

#### Putting on the ANGEL React Shirt

## CAUTION



### Allergic reaction due to wearing the *ANGEL React* Shirt

- ▶ Remove the shirt immediately if you experience skin irritation or itching. The electrodes contain silicone.
- ▶ Also remove the shirt if you feel constricted, or if the cuffs are too tight.

You can wear the *ANGEL React* T-Shirt beneath your work clothes in the same way as a regular shirt. Always make sure, that the upper arm cuffs of your shirt are on your bare skin.



0. Attach the Shirt Genius to your *ANGEL React* T-Shirt: Place the Shirt Genius the right way (the "arrow" of the Genius must point towards the back of your upper arm)
1. Make sure that the silicone electrodes on the upper arm cuffs are in good contact with your skin.
2. If you have very dry skin, it may help to moisten the electrodes with skin cream or a little water.
3. Contact our support if the cuffs of your shirt are too tight or too loose.

### Attaching the clip (holder)

You can attach the clip (holder) to a belt, waistband, or other place on your work clothes where it neither restricts nor presses against you. For reliable fall accident detection, the Clip Genius must be attached to your torso or hip.

### 3.2.3 Pairing

Put the Genius into the charging station while carrying out the following steps and connect the charging station to power.

- ✓ To start the pairing process, your Genius has to flash blue. If it does not, proceed with the steps below.
1. Click the Genius into the contacts of the charging station.
  2. Detach the Genius from the contacts, then click it back onto the contacts.
  3. Repeat these last two steps at least five times.
  4. If the Genius does not flash blue try it again, slightly faster or slower.
- ▶ Open the *ANGEL React* App and follow the lead of the setup wizard. It will guide you through the pairing process and registration in the *ANGEL React* Portal.

During the pairing process, the Genius may require a firmware update. This update takes a few minutes, and the Genius flashes in all its colors during this time.

If you need more information about the handling of the pairing process, use this QR code to watch an explanatory video.



### 3.2.4 Registering

Once you have paired successfully, the app takes you to the *ANGEL React* Portal. Follow the instructions here and enter all the necessary data:

- ▶ Make sure you have entered the data correctly so you can be helped and found in an emergency.
- ▶ Make sure that the correct company name is stored in the Portal and contact our support if this is incorrect.



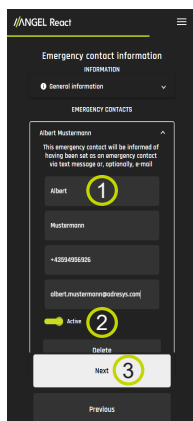
#### Misuse of your data by passing on your Genius

Your Genius is your personal safety device. It is used to access your account and may be misused.

- ▶ Do not pass on your Genius to a third party to avoid possible misuse and disclosure of your personal data.

### 3.2.4.1 Setting up emergency contacts

You can create a list of emergency contacts in the *ANGEL React* Portal.



- 1 Fill in the data of your emergency contacts one after another.
- 2 Activate suitable contacts by clicking **Active** beneath their name.
  - They will be informed that you added them.
  - They will be alerted in the event of an incident.
- 2 Click **Next** to add the data of another emergency contact.

- ▶ After entering all data, we recommend raising a test alarm to check that your emergency contacts receive the emergency text messages/e-mails and an automated voice call. Familiarize yourself with the process.

### 3.2.4.2 Changing emergency contacts

The *ANGEL React* Portal is a web page in your default browser. You can change your emergency contacts at any time there. To find it in the *ANGEL React* App tap **Emergency call** -> **Manage contacts**.

Here you can do the following:

- Set up new emergency contacts.
- Activate/Deactivate emergency contacts, depending on your work situation.

The change takes effect immediately after refreshing the website of the *ANGEL React* Portal.

## 3.3 Operation

### 3.3.1 Daily use

#### WARNING

##### Risk due to lack of data connection

The *ANGEL React* system may not work reliably or be able to place an emergency call if the data connection is not activated or if connections are missing for any reason (e.g., Bluetooth®).



You should not assume that the system can call for help in every situation.

- ▶ Check the notifications in the *ANGEL React* App from time to time.
- ▶ Start the Task Timer if there is a chance that your smartphone might lose its permanent data connection.

#### At the beginning of your working day:

1. Attach the Genius to your workwear, for example click it into your clip or the Shirt cradle.
2. Take your smartphone with you and start the *ANGEL React* App.
3. Check, if all the icons are green.
  - 3.1 If the emergency icon is orange, check again in a few minutes. It usually changes its color.
  - 3.2 The Genius emits an audible signal if something is not right.
4. Check your app notifications from time to time and activate the Task Timer if needed.



Your Genius beeps continuously if the system is not working properly for a longer period (e.g., because you lost your Bluetooth® connection) Check your app notifications if you hear such a sound.

#### At the end of the working day:

1. Remove the Genius and place it in the charging station to recharge it.
  2. Make sure the Genius shows green while charging. If it is red, you might need to clean the contacts.
- ▶ When using the *ANGEL React Shirt* system, read the care instructions for the *ANGEL React* Shirt in chapter Care instructions of the *ANGEL React* Shirt.

### 3.3.2 Emergency detection

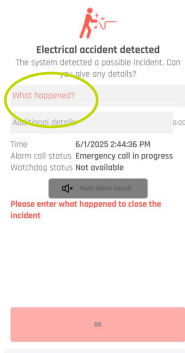
After an incident is detected, depending on the kind of incident, the systems starts a pre-alarm: the system raises an audible and optical alarm, your smartphone is vibrating.

If you do not acknowledge this pre-alarm, the *ANGEL React* system assumes an emergency and activates the emergency call chain.

Except for the electrical accident all emergency alarms work with (a kind of) a pre-alarm.

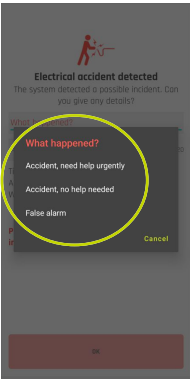
|                                                  | Pre-alarm | Emergency alarm |
|--------------------------------------------------|-----------|-----------------|
| Motionlessness                                   | x         | x               |
| Fall accident                                    | x         | x               |
| Elapsed Task Timer                               | x         | x               |
| Manual Genius Alarm                              | x         | x               |
| Manual App Alarm                                 | (Slider)  | x               |
| Electrical accident (only with the Shirt system) |           | x               |

### How to proceed after an emergency alarm:



If you can, open the app and tell the system (and your emergency contacts) more about your situation.

You can also communicate with your emergency contacts via the Help Coordination Portal. A text message with a link to this portal is sent to you and your emergency contacts.



Your smartphone requires a data connection to send emergency information. If this connection is unavailable, the data will be sent the next time you are connected. When working in a location without data connection, you can set the Task Timer.

#### 3.3.2.1 No Motion

No Motion detects when a person remains motionless for a certain period. The system then raises a pre-alarm. A slight movement of the Genius cancels the pre-alarm. If you do not acknowledge the pre-alarm, the emergency call chain will be activated.

## WARNING

### Risk of undetected emergency due to vibrating pre-alarm



If you carry your smartphone close to your Genius, it is possible that its vibrating pre-alarm will simulate movement to the Genius in the event of a No Motion emergency. This cancels the No Motion alarm.

- Make sure you carry your smartphone on the one side of your body where you are NOT wearing the Genius (especially when using a Clip system).

If you do not acknowledge the pre-alarm, the emergency call chain is activated.

#### 3.3.2.2 Fall accident

The *ANGEL React* system's sensors detect fall accidents in the event of a free fall, followed by impact and motionlessness. First the *ANGEL React* App raises a pre-alarm and then – if this is not acknowledged by a movement of the Genius – an emergency call.

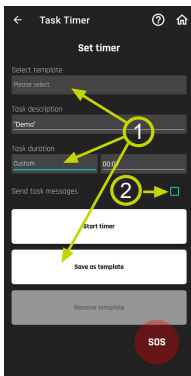
#### 3.3.2.3 Electrical accident (only with the Shirt system)

To detect electrical accidents, the Shirt Genius measures the voltage between your upper arms via the electrodes in the cuffs of the *ANGEL React* Shirt. A certain voltage allows it to draw conclusions about the current flow in your body.

#### 3.3.2.4 Task Timer

The Task Timer should be used in the following situations:

- Before carrying out high-risk work.
- If your smartphone might temporarily lose data connection, and therefore will be unable to place an emergency call, e.g., in a basement.



You program the Task Timer for a certain period of activity. It saves the last known GPS position.

- 1 Here you can save the activity, duration, etc. as a template, and then select this template next time.
- 2 Check this checkbox if you want your emergency contact to be notified that the Task Timer is active when you start your activity.

### Handling of the Task Timer's pre-alarm

The Task Timer's pre-alarm sounds before the programmed time elapses. Now disable or extend the timer. If you do not acknowledge the pre-alarm, the Task Timer raises an emergency alarm as soon as the programmed time ends.

You can extend the time period between pre-alarm and emergency alarm via **Other settings** -> **Settings** -> **Task Timer**.



If your smartphone has no access to mobile data, you will not be able to extend or disable your Task Timer. An emergency alarm will be raised automatically when the programmed time has ended.

- ▶ Find a location with access to mobile data and extend or disable the Task Timer.
- ▶ If this is not possible, go to a location where your smartphone has mobile phone reception so that you can be called.



If your battery is low, you might run out of it before the runtime of the Task Timer is over. The emergency call chain will be activated.

- ▶ Do not start the Task Timer unless your smartphone has enough battery for the Task Timer runtime, plus at least one hour in reserve.



An emergency alarm will also be raised automatically if you remove the Genius from its holder or close the *ANGEL React* App. It will be raised after the Task Timer expires.

### 3.3.2.5 Manual alarm

There are two ways to raise a manual alarm:

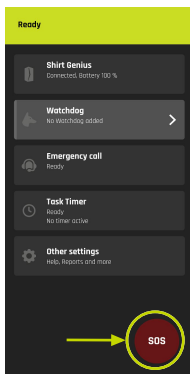
#### Manual Genius alarm

To trigger a Manual Genius alarm, tap the Genius multiple times. This will raise a pre-alarm. To stop this pre-alarm you must remove the Genius from the shirt or its holder for a few seconds.

If you do not stop the pre-alarm, the emergency call chain will be activated.

#### Manual App alarm

The SOS button allows you to raise a Manual App alarm.

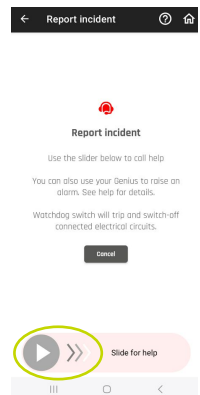


Tap the SOS button and move the slider to the right to start a countdown.

During this countdown, you can still stop the emergency alarm from being raised.

The countdown helps prevent false alarms.

A manual alarm activates the emergency call chain in the same way as an automatically detected emergency.



### 3.3.2.6 False alarm

Your *ANGEL React* system is designed to avoid false alarms. This is why it works with pre-alarms, so that the emergency call chain is not activated if you do not require assistance.

If an alarm is raised, but you do not require assistance, you can tap **False alarm**, or **No help needed** in the app to notify your emergency contacts of the false alarm.

Nevertheless, you must always respond to calls after an alarm has been raised (even after you have tapped **False alarm**, or **No help needed**):

If there is no reply from you (even though your Genius is sounding an alarm, your emergency contacts are calling, etc.), your emergency contacts must ensure you receive the necessary assistance. They might call the emergency responders.

In no case will ADRESYS accept any liability costs that might be incurred by false alarms.

## 3.3.3 Data and settings

### 3.3.3.1 Changing data

The *ANGEL React* Portal website can be accessed from the app via **Emergency call -> Account details -> Manage account**.

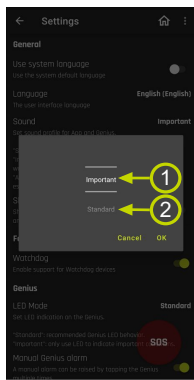
There you can carry out the following steps:

- Change your personal data.
- Change and activate/deactivate emergency contacts.

### 3.3.3.2 Settings

Select **Other settings -> Settings** to change the language or sounds, for example.

## Sound



### Important profile.

- 1 Sounds are only used in alarm situations and for highly important notifications, such as when the system is **not ready** (red).

### Standard profile

- 2 With this setting, you will hear more sounds, such as when you briefly lose Bluetooth® contact with your Genius. We recommend that you use the **Standard** setting as a new user and switch to **Important** after gaining more experience.

Here you can also change the time until the Genius starts beeping after it lost contact to your smartphone.

### 3.3.4 Updates

#### Update of the ANGEL React App

The app is updated on a regular basis. You should be notified by your smartphone's system.

- Confirm the update manually if necessary.
- Check for pending updates in your app store if necessary.

#### Firmware update

The Genius is also updated on a regular basis. You will be notified of a firmware update in the notification window.

1. Confirm the firmware update in the notification window of the *ANGEL React* App.
2. Ensure a successful Bluetooth® connection to run the update.
3. Place your smartphone and the Genius in their charging stations during the update and connect them to power. This will avoid problems during the update process.

The update can take a few minutes. The Genius flashes in all colors during this time.



The *ANGEL React* system is not able to place any emergency calls during an update.

## 3.4 New pairings/sharing

We have explained how to pair and connect a new Genius to the smartphone of a new user in chapter [System setup](#) (page 21). There are some other cases of setup that are explained here.



You might share your Genius with several other smartphones, but the Genius can only be connected to one smartphone at a time.

### 3.4.1 Pairing an already used Genius with a new smartphone

#### 3.4.1.1 Pairing an already used Genius with a new smartphone of the same user

1. Install the *ANGEL React* App on your smartphone. For more information see chapter [Downloading the app](#) (page 21).
2. Follow the lead of the setup wizard: It will ask you to pair your existing, registered Genius to the *ANGEL React* App on your new smartphone. For more information about pairing go to chapter [Pairing](#) (page 22).
3. Log in to the app and portal. The app will function as it did before with all your data.

#### 3.4.1.2 Pairing an already used Genius with the smartphone of a new user in the same company

1. Call our support to deregister the old user.
2. Pair the Genius with the new smartphone. For more information see chapter [System setup](#) (page 21).

### 3.4.1.3 Pairing an already used Genius with the smartphone of an user in a different company

1. Call our support and ask them to do the following:
  - 1.1 Deregister the former user.
  - 1.2 Change the company.
2. Get the new Genius into pairing mode and perform a new setup. For more information see chapter [System setup](#) (page 21).

### 3.4.2 Pairing an already used app with a new Genius

1. Call our support and ask them to deregister your old Genius. After this, your e-mail-address can be used to pair with your new Genius.
2. Get the new Genius into pairing mode and perform a new setup. For more information see chapter [System setup](#) (page 21).

### 3.4.3 Handover: sharing a Genius with other users



Keep in mind that the Genius stores the data. Personal data and data of the emergency contacts is attached to the Genius, not to the smartphone.

- Make sure you do not share your Genius with people you do not know or trust.

#### 3.4.3.1 First registration

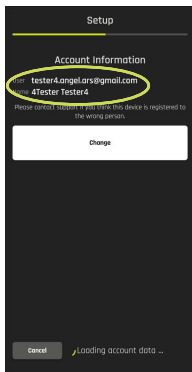
If several users want to share a Genius, do the following:

1. All users have to install the *ANGEL React* App on their smartphone.
2. User 1 goes through the pairing and registration process in the app.
3. The registration should be for a function rather than a name (e.g. "Night Shift 1") or similar.



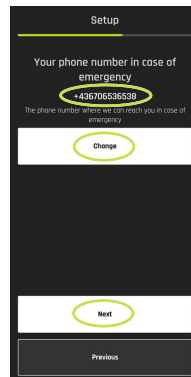
Please note, that only one email address is stored for all users. The emergency contacts are also the same for all users. If one of the users wants to change the list of emergency contacts, they need to know the email address and the password of the *ANGEL React* App account.

4. Every other user starts the *ANGEL React* App, pairs the app with the corresponding Genius and goes through a shortened registration process.



Using the Genius for the first time, user 2 to 8 must do the following:

- Do NOT change the username.
- Change the phone number to your own and confirm it.
- Press **Next** every time you finished a step.



### 3.4.3.2 Genius handover in daily use

1. User 1 closes the *ANGEL React* App, deactivates Bluetooth®, or just walks away.



Make sure that the app is really closed and not just moved to the background.

2. User 2 starts the *ANGEL React* App (with activated Bluetooth®).



The Genius automatically connects to an app with which it has already been paired.

### 3.4.3.3 Troubleshooting

If you have trouble connecting to the Genius, have a look at the device: a green flashing Genius indicates that it is already connected to a different *ANGEL React* App.

1. Look for the person who is currently using the Genius and ask them to close their app.
2. If you cannot find the owner of the paired smartphone, you can delete its pairing in your own app by tapping **Genius** -> **Genius details** -> **Delete other pairings**.

If the app still has problems connecting to your Genius, you can do the following:

3. Deactivate and reactivate Bluetooth®.
4. Remove your Genius from its holder, wait for some time and put it on again.
5. Maybe more than 8 users used the Genius in the meantime. If that is the case, you have to pair again.



If more than eight users paired their *ANGEL React* App to the same Genius, the pairing of the first user is deleted automatically.

### 3.5 Technical data

The operating conditions define the physical environment and the parameters for using the Genius. You must use the Genius under the following operating conditions only:

| Temperature                                                   |                                     |
|---------------------------------------------------------------|-------------------------------------|
| Operation                                                     | -10 °C to 50 °C                     |
| Storage                                                       | -10 °C to 50 °C                     |
| Storage: optimum storage temperature to maximize battery life | 10 °C to 25 °C                      |
| While charging                                                | 0 °C to 45 °C                       |
| Humidity                                                      |                                     |
| Air humidity                                                  | 10 – 95 % rh, non-condensing        |
| Battery                                                       |                                     |
| Charging time                                                 | No more than 2 hours                |
| Genius running time                                           | Typically, 12 hours (1 working day) |
| Battery type                                                  | Lithium-ion battery                 |

This is only an excerpt of the most important technical data. Contact our support for a detailed technical datasheet.

# Watchdog

The Watchdog is an accessory to the *ANGEL React* Shirt and Clip system. It provides additional safety.

If the Genius detects an emergency, it calls for help via the *ANGEL React* App and sends a signal to the Watchdog. Via a potential-free contact the Watchdog commands to switch off a power source or to interrupt the electrical circuit you are working in. The potential-free contact can also be integrated into an automation system, or it can be used to start a siren.

The Watchdog can also be used as part of an Indoor Positioning System (IPS). For more information about this use case go to chapter [IPS](#) (page 34).

## 4.1 Usage

### 4.1.1 Switching functionality

Up to 4 *ANGEL React* users can work with one Watchdog.

As a switch-off device, the Watchdog can be used in different scenarios like:

- With a non-stationary power source with switch-off functionality
- With an existing stationary emergency-off circuit

#### **Use with a non-stationary power source with switch-off functionality:**

The Watchdog is connected to a device that can output electrical voltages via a connection cable with a suitable adapter (e.g., Sub-D connection). The device must have an emergency-off input and feature a restart lock.

Please contact our support or sales for individual cable solutions.

#### **Use with an existing stationary emergency-off circuit:**

The Watchdog is wired to an existing emergency-off circuit. Since most of them do not have restart locks, the Watchdog is connected to the Restart Inhibit which is wired into the emergency-off circuit.

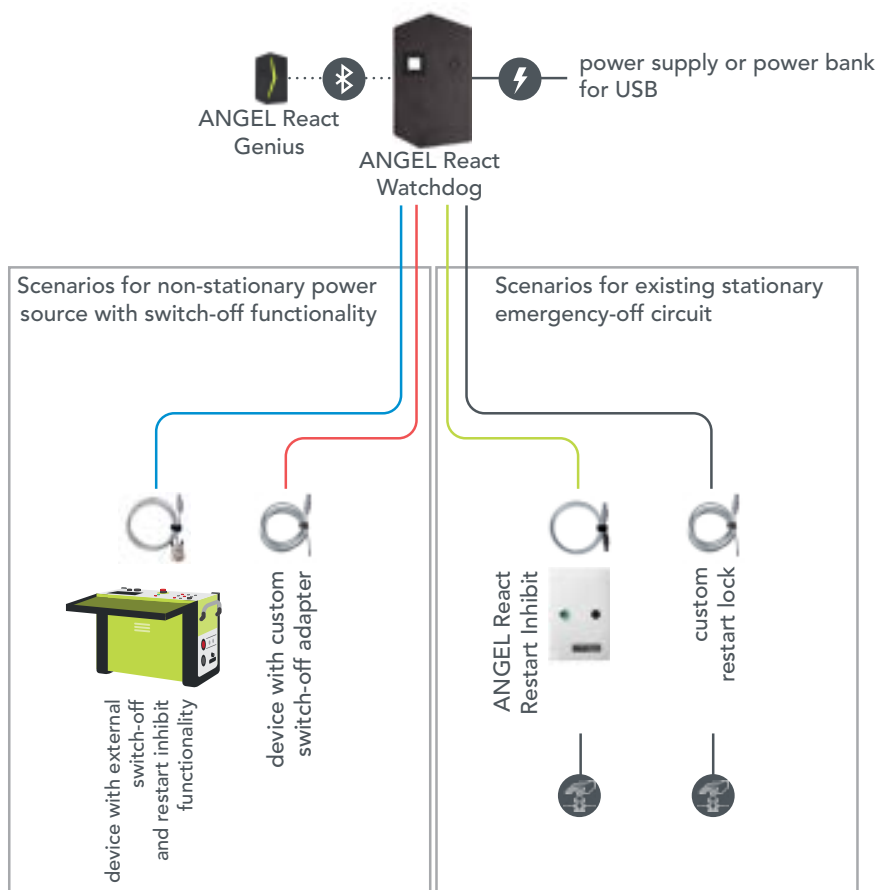
## DANGER

### **Danger due to unsuitable or missing restart lock**



- ▶ Connect the Watchdog to an existing emergency-off circuit via a restart lock.
- ▶ If you do not have a restart lock (or are not sure if you have one) use the *ANGEL React* Restart Inhibit.
- ▶ Have a trained and qualified electrician install the Restart Inhibit into the emergency-off circuit.
- ▶ Supply the Restart Inhibit with line voltage.

The Watchdog can also be used to activate devices such as warning lights, sirens, and similar items. An inverter relay is required for these purposes.



#### 4.1.2 IPS

The Watchdog can be used as a location beacon and as part of an Indoor Positioning System (IPS). This function is enabled by default.



It limits the number of possible connections to Genii from 4 to 3 if you use your Watchdog as a location beacon.

Go to chapter [Disabling the IPS function](#) (page 40) for information about deactivating the IPS function of your Watchdog.

Before using your Watchdog as part of an IPS do the following:

1. Scan the ADMIN QR Code of the Watchdog.
2. Configure the location data of your Watchdog.

- 2.1 Provide the Watchdog with a location description, e.g., the room number, floor number etc.
- 2.2 Enter the accurate GPS location (highly recommended!).

## 4.2 Safety

Before using an *ANGEL React* Watchdog, carefully read all the safety instructions in chapter Safety and also stick to the following rules:

- ▶ Have a trained and qualified electrician to integrate the Watchdog into existing installations or when using the connection cable with open end.
- ▶ Do not connect the Watchdog to loads that must not be switched off, such as emergency lights.
- ▶ Do not open the Watchdog.
- ▶ Disconnect the Watchdog from the power supply if you notice any kind of malfunction or damage. A malfunction of the Watchdog may be indicated by smoke or an unusual odor.

## 4.3 Scope of delivery

Check whether your Watchdog has been delivered with the equipment you asked for.

If anything is missing, contact our support.

### 4.3.1 Watchdog

The scope of delivery includes the Watchdog and its accessories.



*ANGEL React* Watchdog



Power supply unit and cable.



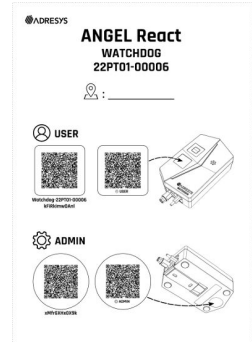
Mounting rail on the back panel of the Watchdog

### 4.3.2 QR Codes

The scope of delivery also includes a slip of paper with two different QR codes.

**Square QR code (USER):** scan this to connect your app to the Watchdog.

**Circular QR code (ADMIN):** scan this if you require administrator rights for the Watchdog, for example, if you wish to carry out a firmware update.



- ▶ File this slip of paper away in a folder.
- ▶ If you are using several Watchdogs, enter the location of the Watchdog on the slip of paper.
- ▶ You may stick one of each QR code to the Watchdog.
- Stick the USER QR code to the front of your Watchdog if you want to make it easy for users to connect to the Watchdog. If you want to prevent unauthorized persons from connecting easily, you can make the code accessible only to selected people (e.g., if it is critical, when the circuit is interrupted)
- Be careful if you stick the ADMIN QR code to the back panel of your Watchdog.
  - Keep in mind that anyone with access to this code can make any Watchdog user an administrator.
  - Anyone with access to the ADMIN QR code can also change the data of the Watchdog (especially data about the location).

### 4.3.3 Connection cable

You will get your *ANGEL React* Watchdog connection cable according to your order.

- ▶ Make your order depend on your use case.

**For use with a non-stationary power source with switch-off functionality:**

|                                                                                                                                        |  |
|----------------------------------------------------------------------------------------------------------------------------------------|--|
| Connection cable with Sub-D connection: AD-S04128<br>See overview graphic <a href="#">Switching functionality</a> (page 33), blue line |  |
| Connection cable with open end: AD-S04131<br>See overview graphic <a href="#">Switching functionality</a> (page 33), red line          |  |

**For use with an existing stationary emergency-off circuit:**

|                                                                                                                                                                        |                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Connection cable with <i>ANGEL React</i> plug for the Restart Inhibit: AD-S04130<br>See overview graphic <a href="#">Switching functionality</a> (page 33), green line |  |
| Connection cable with open end: AD-S04131<br>See overview graphic <a href="#">Switching functionality</a> (page 33), grey line                                         |  |

#### 4.3.4 Optional components

The following components are not part of the scope of delivery, but can be ordered easily.

- *ANGEL React* Restart Inhibit for the Watchdog: see chapter [Restart Inhibit](#) (page 42)
- *ANGEL React* Splitter for the Watchdog: for using several Watchdogs with one single Restart Inhibit
- *ANGEL React* Extension: for joining several connection cables

## 4.4 System setup

Carry out the following steps before using the *ANGEL React* Watchdog for the first time.

#### 4.4.1 Starting the *ANGEL React* system

For more details go to chapter System setup of the *ANGEL React* Shirt or Clip system.

#### 4.4.2 Mounting (optional intermediate step)

For using your Watchdog in a stationary application, it should be mounted:

### ANGER

#### Danger from falling objects

If you do not mount your Watchdog properly, it might fall from the wall/ceiling.



- ▶ Make sure you slide the Watchdog into the rail from top to bottom or sideways. This will ensure that it is fixed, i.e., that it cannot be moved without releasing the attachment.
- ▶ Only use the original mounting rail for mounting.
- ▶ If your mounting rail looks damaged or breaks during the process of mounting, contact our support and order a new one. Never use a rail, that is not from ADRESYS: your Watchdog might slip out of the fastening.

1. To mount your Watchdog, take the mounting rail out of the back panel of your Watchdog.
2. Screw it onto the wall or attach it in another suitable manner.
3. Allow the Watchdog to engage in the rail with a clearly audible click.

## DANGER

### Risk of injury during wiring and installation

If the Watchdog (and Restart Inhibit) are not wired and installed correctly, it may result in life threatening voltage contact.



- ▶ The Watchdog must only be installed in existing emergency-off circuits by trained and qualified electricians.
- ▶ The open end of an *ANGEL React* connection cable must only be connected by trained and qualified electricians.
- ▶ If the Watchdog is connected to third-party equipment, make sure this is de-energized during the connection process.
- ▶ In case of an existing stationary emergency-off circuit, the Watchdog must only be used with a certified restart lock (like the *ANGEL React* Restart Inhibit). This restart lock must be connected by trained and qualified electricians.

To connect the Watchdog to the system you are working with, you need a connection cable supplied with an *ANGEL React* plug.



- 1 The Watchdog is supplied via its USB-C connector. There is no data connection possible or needed.
- 2 Connect the grey connector to the potential free contact of the Watchdog.

Depending on your use case there are several options to use the Watchdog. Refer to chapter [Switching functionality](#) (page 33) for details.

### 4.4.4 Connecting a Genius to a Watchdog

#### 4.4.4.1 Connection for users

You have to connect your *ANGEL React* App to the Genius before using the system for the first time. The connection is made from the Genius directly to the Watchdog, the smartphone is just needed to set it up.

1. Scan the square QR code (USER) on the slip of paper provided or on the front of your Watchdog.
2. Inform the administrator of the Watchdog if the device needs a firmware update after connecting to your *ANGEL React* App.

➔ Once you have connected your *ANGEL React* App to a Watchdog, the app will automatically connect to this Watchdog again in the future.

#### 4.4.4.2 Connection for administration/updates

With an ADMIN connection, you can enter and change settings or perform a firmware update of your Watchdog. You also need it to switch off (or on) the IPS functionality of your device.

To establish an ADMIN connection, connect your smartphone to the Watchdog. The connection is initiated from smartphone to Watchdog.

- Scan the QR code in the ADMIN circle; this will either be stuck to the back panel of your Watchdog or filed away in a folder.

If the Watchdog requires a **firmware update** after connecting to the app, you can do this right away.

1. Make sure, your *ANGEL React* App is up to date.
2. Tap the Watchdog icon in the app.
3. Scan the QR code in the ADMIN circle; this will either be stuck to the back panel of your Watchdog or filed away in a folder.
4. Start the firmware update.

## 4.5 Operation

### 4.5.1 Daily use

#### CAUTION

#### Risk due to lack of data connection



The *ANGEL React* system may not work reliably if the data connection is missing for any reason. The Watchdog cannot perform its switching actions.

- Check the notifications in the *ANGEL React* App from time to time.

1. Start your *ANGEL React* system.
2. Check the LED on your Watchdog: when there is power connection and the LED lights up red, the Watchdog is working correctly.
3. The Genius automatically connects to the Watchdog.
4. Check your *ANGEL React* App: when the system and the Watchdog are working, the app is all green.

### 4.5.2 Color display of the Watchdog

When using *ANGEL React*, always act according to the colors shown.

- Be aware that the colors in the app and the Genius differ from the colors of the Watchdog. The colors of the Watchdog are aligned with the standards defined for high voltage systems. See chapter [Colors in Genius and app](#) (page 11) to learn more about the colors of app and Genius.

|                      |                                                                                                                                                                                                     |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RED                  | The Watchdog is supplied with power.                                                                                                                                                                |
| FLASHING RED         | The Watchdog has detected an emergency and switched off the external power source. It flashes red until you have manually reset the Watchdog switch in the app and reset the emergency-off circuit. |
| ALTERNING RED/BLUE   | Active ADMIN connection between a smartphone and the Watchdog (for updates and configuration)                                                                                                       |
| ALL COLORS           | Firmware update in progress                                                                                                                                                                         |
| NO COLOR             | The Watchdog is not supplied with power.                                                                                                                                                            |
| ALTERNING RED/ORANGE | Internal fault or shutdown of the Watchdog                                                                                                                                                          |

### 4.5.3 Emergency detection

## DANGER

### Risk of injury due to voltage contact

The Watchdog does not protect you against electrical accidents or contact with voltage.



- ▶ The Watchdog must only be used as an additional safety measure.
- ▶ It cannot carry out all-pole disconnection.
- ▶ It is not a switch-off device in the sense of a disconnecter (e.g., a circuit breaker).

If the Genius detects an incident, it sends a command to a connected Watchdog, which will switch its potential-free contact. This contact can be used to trigger circuit breakers to switch something off (e.g., electrical power source) or something on (e.g., siren).

### Process after an emergency detection

To resume working with the Watchdog after an emergency detection, follow these steps:

1. Acknowledge the emergency in the *ANGEL React* App.
2. If your Watchdog icon continues to light up red and the app is **Not ready**, tap the Watchdog icon and reactivate the Watchdog switch.
3. If you are using the *ANGEL React* Restart Inhibit, press the green button for restart.

### 4.5.4 Removing the Genius-Watchdog connection

If you are no longer using or passing on a Genius, remove its connection to the Watchdog(s).

- ▶ Tap the Watchdog icon in the *ANGEL React* App. Here, you can remove the connection to one special or all Watchdogs.

### 4.5.5 Disabling the IPS function

If you do not need the IPS function of your Watchdog, switch it off:

1. Tap the Watchdog icon and go to **Settings**.
2. Scroll down to **Features**.

3. Slide the green button next to **Enable Location Beacon** to the left.

After switching off the IPS function, your Watchdog can connect to 4 different Genii instead of 3.

## 4.6 Technical data

The operating conditions define the physical environment and the parameters for using the *ANGEL React* Watchdog. Only use it under the following operating conditions:

|                                          |                                                                                           |
|------------------------------------------|-------------------------------------------------------------------------------------------|
| Temperature Operation/Storage            | -10 °C to 55 °C                                                                           |
| Rated current                            | 500 mA                                                                                    |
| Rated voltage                            | 5 V +/- 10 percentage                                                                     |
| Maximum operating height                 | 2000 m above sea level                                                                    |
| Usage                                    | indoors                                                                                   |
| Air humidity                             | 5 – 95 % rh, non-condensing                                                               |
| Overvoltage category                     | OVC II                                                                                    |
| Shutdown                                 | single pole                                                                               |
| Pollution degree                         | PD2                                                                                       |
| Protection class                         | II, protective insulated connection                                                       |
| Number of possible connections to Genius | 4 (Usage just as switch-off device)<br>3 (Usage as switch-off device and location beacon) |



The more Genii are connected to a Watchdog, the longer the trip time.

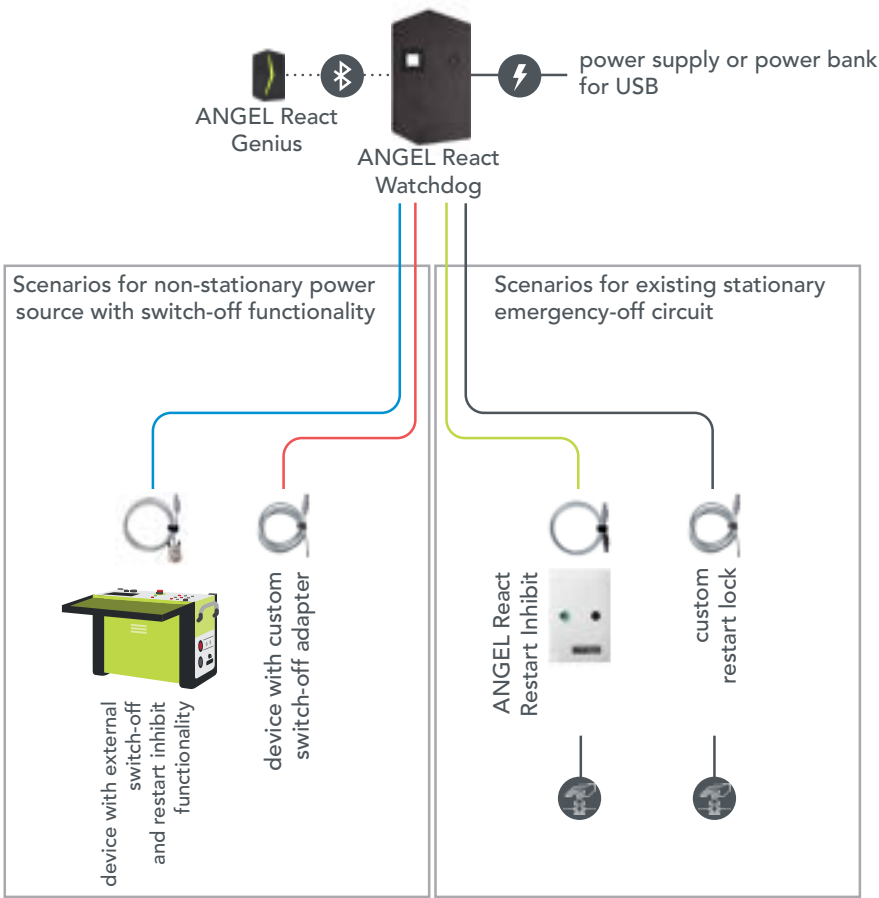
### Data for potential-free contact

|                                                            |                                                                                                                                                             |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC general use                                             | 126VA 42VAC/3A utilization category AC-15                                                                                                                   |
| DC general use                                             | 36W 60VDC/0.6A at L/R=40ms                                                                                                                                  |
| AC resistive load                                          | 168W 42VAC/4A utilization category AC-1                                                                                                                     |
| DC resistive load                                          | 90W 60VDC/1.5A resistive load                                                                                                                               |
| AC switching capacity                                      | 250VA limited by internal fuse                                                                                                                              |
| DC switching capacity                                      | 250W limited by internal fuse                                                                                                                               |
| Data of the connection cable to the potential-free contact | 300Vrms/5A, 2x0,5mm <sup>2</sup> , 2m length<br>with Sub-D-connector: AD-S04128<br>with <i>ANGEL React</i> Connector: AD-S04130<br>with open end: AD-S04131 |

The Watchdog requires no maintenance and must only be cleaned with a dry cloth.

# Restart Inhibit

The *ANGEL React* Restart Inhibit is used in combination with a Watchdog and an *ANGEL React* system. It enables the Watchdog to be correctly connected to an existing emergency-off circuit.



The Restart Inhibit is wired to an existing emergency-off circuit. It must be supplied with line voltage.

## 5.1 Safety

Before using the Restart Inhibit, carefully read all the safety instructions in chapter Safety and also stick to the following rules:

- ▶ You must not use the Restart Inhibit if you notice mechanical or other damage, or any unusual conditions. A malfunction of the Restart Inhibit may be indicated by smoke or an unusual odor. Take the device out of operation and have it uninstalled by a qualified electrician.
- ▶ Never touch any live parts inside the Restart Inhibit.
- ▶ Lock the Restart Inhibit after the installation using the provided key and store the key safely to prevent unauthorized access.
- ▶ Do not use the Restart Inhibit in explosive atmospheres.

## 5.2 Scope of delivery

Check that all the listed components are included in your delivery.

If anything is missing, contact our support.



*ANGEL React*  
Restart Inhibit



Key  
for opening the Restart Inhibit



Short-circuit adapter \*

\* The short-circuit adapter can be used to enable a restart of the emergency-off circuit, although the Restart Inhibit is not connected to the Watchdog.

- ▶ Order the AD-S04130 cable separately. It is required to connect the Restart Inhibit to the Watchdog.

## 5.3 Installation

### CAUTION



#### Risk due to damage

- Do not install the Restart Inhibit if you have noticed transport damage to the housing or the cables.

### DANGER

#### Danger when opening the Restart Inhibit

Touching live parts inside the Restart Inhibit can result in life-threatening or even fatal injuries.



- Always have the Restart Inhibit connected to the emergency-off circuit by a qualified electrician.
  - The Restart Inhibit may only be opened by a qualified electrician.
  - Always have the fuses of a connected Restart Inhibit replaced by a qualified electrician.
  - Keep the key for the lid of the Restart Inhibit in a safe place so that it cannot be opened by unauthorized persons.
- Install the Restart Inhibit vertically +/- 90 degrees.

**The following applies to the base of the Restart Inhibit:**



- 1 I/O lines connection for wiring into the emergency-off circuit(s).
- 2 Voltage supply for the Restart Inhibit 100-240 VAC.

**And to the top of the Restart Inhibit:**



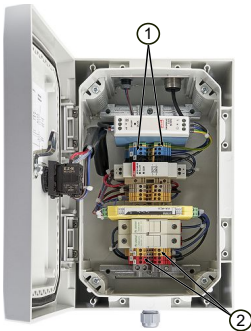
- 1 Socket for the Watchdog plug.
- 2 USB-C port for the Watchdog power supply.

### 5.3.1 Connection to the Watchdog

Connect your Watchdog to the Restart Inhibit via the connections on the top of the Restart Inhibit:

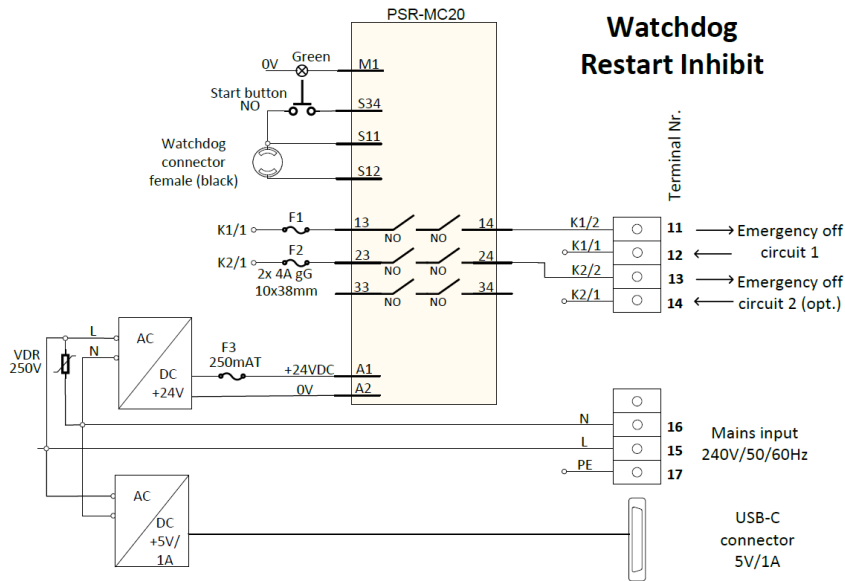
- ✓ The Watchdog socket on the top of the Restart Inhibit is used to connect the *ANGEL React* Watchdog connection cable.
- 1. If no suitable cable is enclosed for connecting the Watchdog to the Restart Inhibit, order one from ADRESYS. The order number is AD-S04130.
- 2. Do not use a different cable.
- ✓ The USB-C port on the top of the Restart Inhibit is used to supply the Watchdog with power.
- Connect Restart Inhibit and Watchdog via these two ports.

### 5.3.2 Connections inside the Restart Inhibit



- 1 Connect the power cable wires (100-240 VAC) for the Restart Inhibit according to pins 15 to 17 as shown in the connection diagram below.
- 2 Wire the cables of the emergency-off circuit to the red and yellow terminals according to pins 11 and 12 as shown in the connection diagram below. For two emergency-off circuits use pins 13 and 14 as well.

Connection diagram



5.4 Operation

After your Restart Inhibit has been installed in the existing emergency-off circuit by a trained and qualified electrician it will be extremely easy to use and operate.

5.4.1 Color display of the Restart Inhibit

|                                         |                                                                                                                                                                                                                                                                                         |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Green restart button does NOT light up. | <ul style="list-style-type: none"><li>Your Restart Inhibit is connected to the emergency-off circuit(s) and the Watchdog. It is working in accordance with standards. The emergency-off circuit is closed.</li><li>OR the Restart Inhibit is not being supplied with voltage.</li></ul> |
| Restart button lights up green.         | <ul style="list-style-type: none"><li>A shutdown has been triggered by the Watchdog.</li><li>OR the <i>ANGEL React</i> connection cable has not been connected.</li><li>OR the Watchdog is not being supplied with voltage.</li></ul>                                                   |

5.4.2 Emergency detection

If your *ANGEL React* system detects an incident, the Watchdog commands the Restart Inhibit to interrupt the emergency-off circuit.

The green restart button on the Restart Inhibit starts to light up.

## Reactivating the system

If you wish to reactivate your Restart Inhibit and the *ANGEL React* system after the detection of an emergency, proceed as follows:

1. Acknowledge the emergency in the *ANGEL React* App.
2. Click on the Watchdog icon and set the Watchdog switch to **Active** again.
3. Press the green illuminated restart button on the Restart Inhibit. This should turn off after being pressed once.

## Troubleshooting

If the restart button light does not turn off permanently after pressing, there may be some reasons:

- You have not reset the Watchdog properly after tripping.
- There is no connection between the Watchdog and the Restart Inhibit.
- The Watchdog is not being supplied with power.

The **short-circuit adapter** can be used if the Restart Inhibit is not connected to the Watchdog, but a restart of the emergency-off circuit is to be enabled.

## 5.5 Servicing

### 5.5.1 Replacing fuses

The Restart Inhibit contains various fuses.

Always have the fuses replaced by a trained and qualified electrician. This electrician should do the following:

1. Make sure that the Restart Inhibit is de-energized while it is open.
2. Open the Restart Inhibit with the key provided.

## DANGER

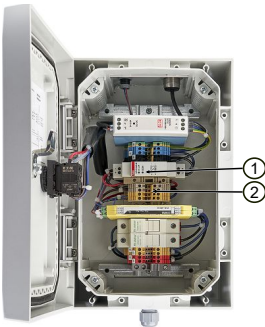
### Danger when using incorrect fuses



The safe function of the device cannot be guaranteed if incorrect fuses are used.

- Read the following chapter carefully and make sure you are using the right fuses.

#### 5.5.1.1 Backup fuse for the voltage supply of the safety relay

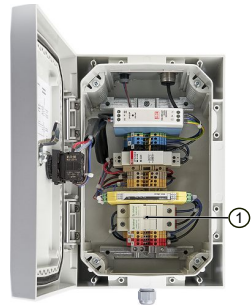


- 1 The defective fuse is signalled by the illumination of the red LED in the corresponding fuse holder.
- 2 Replace this fuse with a type 5x20 mm glass tube, 250 mA T fuse.

#### 5.5.1.2 Fuses of the emergency-off circuit

The specified current ratings and voltages for the safety relay must not be exceeded. The load curve in chapter [Operating conditions](#) (page 49) provides more information on the topic.

- 1 Only use type 10 x 38 mm 4A type gG fuses here.



### 5.5.2 Taking the Watchdog out of operation

If you want to take the Watchdog out of operation, the emergency-off function can be bypassed:

- ▶ Insert the short-circuit adapter into the Watchdog instead of the Watchdog connection cable.



If you are using the short-circuit adapter, the emergency-off circuit will continue to function, but the Watchdog will no longer be able to open it.

## 5.6 Technical data

The operating conditions define the physical environment and the parameters for using the *ANGEL React Restart Inhibit*.

### 5.6.1 Operating conditions

| Temperature              |                             |
|--------------------------|-----------------------------|
| Operation                | -10 °C to 55 °C             |
| Storage                  | -10 °C to 55 °C             |
| Maximum operating height | 2000 m above sea level      |
| Usage                    | indoors, no direct sunlight |
| IP protection            | IP 20                       |
| Housing flammability     | UL 94-V0                    |
| Protection class         | II, protective insulated    |
| Air humidity             | 5 – 95 % rh, non-condensing |
| Pollution degree         | PD2                         |

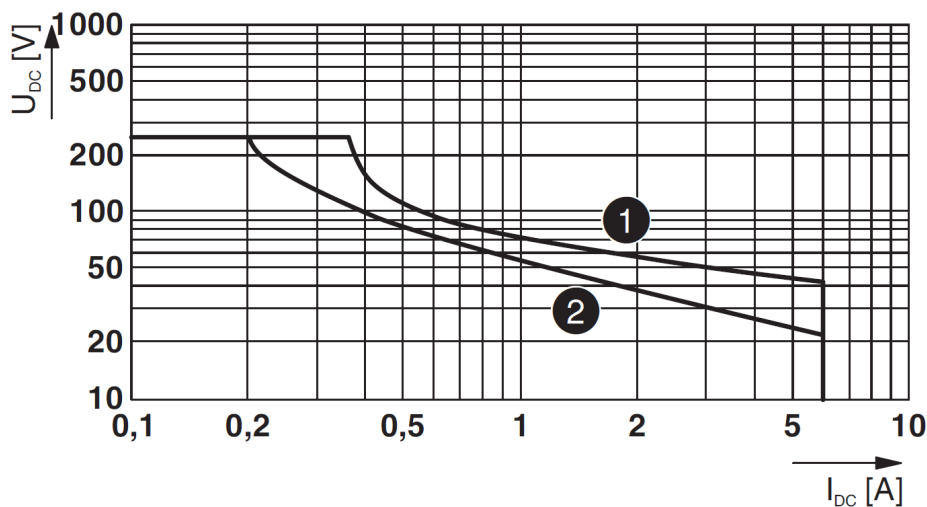
The Restart Inhibit requires no maintenance and must only be cleaned with a dry cloth.

|                                   |                                                               |
|-----------------------------------|---------------------------------------------------------------|
| Shutdown                          | single or double pole, depending on the type of wiring chosen |
| Input voltage for internal supply | 100 - 240 VAC/0.75 A max.                                     |
| Internal power consumption        | Max. 15 W                                                     |

### 5.6.2 Connections

|                         |                                                 |
|-------------------------|-------------------------------------------------|
| Switching voltage       | 12 V AC/DC - 250 V AC/DC (see load curve below) |
| Switching current       | 3mA – 4A AC/DC (see load curve below)           |
| Breaking capacity range | 60 mW – 1.000W (VA)                             |
| Maximum inrush current  | 6A AC/DC                                        |
| Output circuit fuse     | 4A gL/gG 10 x 38 mm cartridge fuse              |
| Mech. switching cycles  | 10 million                                      |

Load curve



1 Ohmic load ( $L/R = 0ms$ )

2 Inductive load ( $L/R = 40ms$ )

Connectors

|                        |                                                              |
|------------------------|--------------------------------------------------------------|
| I/O lines connection   | 2x PG11 screw connection                                     |
| Watchdog connection    | 1x six-pin black socket                                      |
| USB-C port connection: | For supplying external devices (Watchdog),<br>max. 5 VDC/2 A |

Watchdog connection cable

|            |                                 |
|------------|---------------------------------|
| Cable data | 300Vrms/5A, 2x0,5mm2, 2m length |
|------------|---------------------------------|

# Indoor Positioning System (IPS)

IPS is an add-on to the *ANGEL React* system. With IPS, *ANGEL React* locates users in case of an emergency and sends their location to the *ANGEL React* system.

## 6.1 About IPS

IPS ensures that an *ANGEL React* system functions more reliably indoors, because the IPS provides additional location information. Location information is crucial in the case of an accident.

By default, *ANGEL React* uses GPS to determine the location, but that technology has limitations: it is not available everywhere - or not everywhere as precise as needed. It also does not allow to give additional, contextual information that would help.

IPS provides location information especially for areas which lack a stable GPS signal (e.g., cellars, tunnels, buildings). It can also extend GPS and provide additional location information to better and faster locate users, e.g., by telling the room name and floor level inside an office building.

Our IPS is designed to efficiently cover wide areas, delivering a coarse indoor location quickly. The exact fine location is then determined using the acoustic signal emitted by the Genius and smart-phone.



If your *ANGEL React* App indicates, that it cannot determine the location or can only do so inaccurately, consider using IPS.

### 6.1.1 Designated use

The *ANGEL React Location Beacon* is programmed to send out location information to *ANGEL React* systems in its vicinity.

### 6.1.2 Components

For IPS you need

- an *ANGEL React* Shirt or Clip system
- location beacons



## As a location beacon you might use

- *ANGEL React Location Beacon(s)*: the *Location Beacon* is a permanently powered device, that is designed to cover wide areas. It is fully integrated into the *ANGEL React* system.
- *ANGEL React Watchdog(s)*: in addition to further functions, the Watchdog can act as location beacon as well. Please read chapter [Watchdog](#) (page 33) to learn more.
- Other beacon types on request (e.g., battery powered).
- Wi-Fi access points with an integrated location beacon function.
- Any other Bluetooth®-based location beacons, that implement the EddyStone protocol.



If you plan to integrate and use third-party beacons into your *ANGEL React* system, please contact us.

### 6.1.3 Planning

Before purchasing IPS components, we recommend putting some effort in planning.

The following things should be considered:

- The area you want to cover with IPS.
  - Whether you want the location information to be accurate to the room or to the floor.
  - Connectivity: is there mobile radio or internet coverage everywhere in the IPS area?
  - The situation in the target areas: where are possibilities for permanent power supplies (power outlets)?
  - The range of every single location beacon: it will tell you how many location beacons you will need.
  - In general: the position of the location beacons.
- Create a plan that documents the positions of the beacons and the location data that should be linked to them.



If you are unsure about how to best plan your IPS, please contact an expert or feel free to reach out to us at [angelreact@adresys.com](mailto:angelreact@adresys.com) or via a local sales partner.

## 6.2 Location Beacon as part of IPS

The *ANGEL React Location Beacon* is part of an IPS. It is a permanently powered device, that is designed to cover wide areas. The *Location Beacon* is embedded in the *ANGEL React* system and works smoothly with it in the following way:

- The Genius receives the IPS signals sent by the *Location Beacons* and gets an overall IPS location.
- In case of an incident, the *ANGEL React* App on the smartphone query the IPS location from the Genius. This IPS location is sent to the *ANGEL React* Server, along with other information, as part of the alarm.
- On the server, the IPS information is temporarily stored and accessible to the emergency contacts through the Help Coordination Portal. The Server can also associate information from the *Location Beacon* with other data. For example, the server can associate beacons with location information, in case the beacons do not carry such information directly.

We discriminate different IPS system types, depending on where the location information for IPS is stored:

- In a **distributed** IPS installation, the location information is stored in the location beacon devices. You do not need any central instance, like the Server, to determine the IPS location. Not all location beacon types are able to operate in a distributed manner.
- In a **centralized** IPS installation, there is usually one instance which has access to all location information and associates the location information to the beacons. The location beacons themselves only contain a unique ID, but no location information. Typically, most beacon types can operate in a centralized IPS system.
- In a **hybrid** installation, we have distributed and centralized elements.

The *ANGEL React* Watchdog and *ANGEL React Location Beacon* can operate in all IPS system types (distributed, centralized, hybrid).

### 6.2.1 Safety

Before using an *ANGEL React Location Beacon*, carefully read all the safety instructions in chapter Safety.

### 6.2.2 Scope of delivery

Check that all the listed components are included in your delivery.

If anything is missing, contact our support.

#### *Location Beacon*



*ANGEL React*  
*Location Beacon*



Cable for power supply  
(USB-C to USB-C)



Mounting rail for the back  
panel of the *Location Beacon*

#### QR Code

Be careful with the ADMIN QR code. Anyone with access to this code can change the data of the *Location Beacon*.

- ▶ File this slip of paper away in a folder.
- ▶ If you are using several *Location Beacons*, enter the location of the beacon on the slip of paper.
- ▶ You may stick the QR code to the back of your *Location Beacon*.

### 6.2.3 Installation

The operator of an IPS has to carry out a few steps before the *Location Beacon* is ready for use.

#### 6.2.3.1 Mounting

## ANGER

### Danger from falling objects

If you do not mount your *Location Beacon* properly, it might fall from the wall/ceiling.



- ▶ Make sure you slide the *ANGEL React Location Beacon* into the rail from top to bottom or sideways. This will ensure that it is fixed, i.e., that it cannot be moved without releasing the attachment.
- ▶ Only use the original mounting rail for mounting.
- ▶ If your mounting rail looks damaged or breaks during the process of mounting, contact our support and order a new one. Never use a rail, that is not from ADRESYS: your *Location Beacon* might slip out of the fastening.

- ✓ To guarantee good localization, always mount your *Location Beacon* on the ceiling or a raised position on the wall.
- ✓ Mounting a *Location Beacon* on the ceiling usually guarantees better localization.

- ✓ Find a place for your *Location Beacon* that is not behind suspension grids etc., as this will affect the signal strength.

1. To mount the *Location Beacon*, take the mounting rail out of the back panel.
2. Screw it onto the ceiling/wall.
3. Allow the *Location Beacon* to engage in the rail.
4. Ensure that the mounting rail has firm hold.

### 6.2.3.2 Connection to power supply

Your *Location Beacon* needs to be constantly powered. There are two different ways to connect it to a power supply.

#### Connection via power socket

## DANGER



### Danger during the installation process

- Only trained and qualified electricians must install sockets that can be used as a power source for the *Location Beacon*.

In general, the *Location Beacon* is permanently powered via line voltage.

1. Make sure an appropriate socket is installed in the vicinity of the *Location Beacon*.
2. Use an appropriate power supply and the cable included in the scope of delivery to connect *Location Beacon* and socket.

#### Connection via POE (Power over Ethernet)

You can also use an Ethernet box as an energy source for your *Location Beacon*.

1. Get a POE to USB Adapter.
2. Connect your *Location Beacon* to the POE adapter.

### 6.2.3.3 Connection to the ANGEL React system

Once the mounting and connecting is done, the operator needs to set the *Location Beacon* up.



### Data entered in the *Location Beacon* is broadcasted in the near vicinity

Nearby devices have free access to this data.

- Provide your *Location Beacon* with crucial information about location or building, that can be open to everyone.
- Never add sensitive information to the location data of your *Location Beacon*.

In the scope of delivery of your *Location Beacon* you can find the ADMIN QR code. Scan this code to connect to and manage your device. The ADMIN connection is initiated from the smartphone to the beacon.

1. Open your *ANGEL React App* and go to **Other Settings** and **Scan QR code**.

2. Scan the ADMIN QR code of your *Location Beacon*.
3. Name your *Location Beacon* (to distinguish it from others) and note the name.
4. Press **Settings** on the device screen of your app and configure the location data of your beacon.
  - 4.1 Provide the *Location Beacon* with a location description, e.g., the room number or floor number.
  - 4.2 Enter the GPS location (highly recommended!).

➔ From now on, the *Location Beacon* will automatically work with any Genius/*ANGEL React* system in its vicinity.

If you feel unsure about the process, contact our support.



Once you have scanned the QR code of your *Location Beacon*, it might need a firmware update. This might take several minutes.

- After the connection process, check the location data of the beacon. Find more information in the according chapter.

## 6.2.4 Operation

### 6.2.4.1 Daily use

In daily use you have to do nothing but the following:

1. Make sure the *Location Beacon* is permanently connected to a power source.
2. Check the functioning of the *Location Beacon* from time to time by checking your location data.

### 6.2.4.2 Operating the system

As operator of an IPS with *ANGEL React Location Beacons* you need to check their data and functionality from time to time.

#### 6.2.4.2.1 Update

1. Make sure, your *ANGEL React App* is up to date.
2. Tap the QR code scanner in your app.
3. Scan the ADMIN QR code of your *Location Beacon*; this will either be stuck to your beacon or filed away in a folder.
4. Start the firmware update. It will take several minutes.

#### 6.2.4.2.2 Checking data and settings

To ensure proper operation of your IPS installation, you should check it from time to time. As time progresses, your *Location Beacon(s)* can be impacted by different events like the following:

- Low battery (in case it is not supplied by line voltage)
- The beacon is unplugged because the outlet was needed (and forgotten to plug in again)
- Firmware update required

1. Check the following to verify placement, associated location data and operation of every *Location Beacon*:
  - ▶ Is the Location Beacon placed at the right position?
  - ▶ Is it powered?
  - ▶ Is it visible to the *ANGEL React* system?
  - ▶ Is the installed firmware up to date?

#### 6.2.4.2.3 Checking location data

There are two ways to check if every *Location Beacon* provides the right data:

You can check via app:

- 1 Tap **Other settings** and **Location** in your app to check the location information of your Location Beacon.
- 2 Scan the ADMIN QR code of your beacon if you have to edit the location information.

You can also check your data information by triggering a test alarm. The location data of the *Location Beacon* will then be shown in the Help Coordination Portal of the emergency contacts.

#### 6.2.5 Technical data

The operating conditions define the physical environment and the parameters for using the *ANGEL React Location Beacon*.

|                               |                             |
|-------------------------------|-----------------------------|
| Temperature Operation/Storage | -10 °C to 55 °C             |
| Rated current                 | 500 mA                      |
| Rated voltage                 | 5 V +/- 10 percentage       |
| Maximum operating height      | 2000 m above sea level      |
| Usage                         | indoors (outdoors)          |
| Air humidity                  | 5 – 95 % rh, non-condensing |

#### Estimated signal range

The signal range depends heavily on the nature of the surroundings, e.g. the walls of your building.

|             |                                  |
|-------------|----------------------------------|
| Field range | Max. 200m (radius) line of sight |
| Industrial  | Max. 50m (radius)                |
| Office      | Max. 30m (radius)                |

The *Location Beacon* requires no maintenance and must only be cleaned with a dry cloth.

# Legal information

This section contains some of the legal information and has been shortened to make it easier to read. Scan the QR code to find the complete, current, and legally binding documents, along with our terms of business, terms of use, and software license conditions.



Some of the preconditions for the use and performance of the *ANGEL React* systems are outside ADRESYS's sphere of influence. ADRESYS aims to ensure high availability of the services but is dependent on third party services (network operator, GPS signal) over which ADRESYS has no influence. ADRESYS does not guarantee interruption-free or fault-free operation, a controlled shutdown, or suitability for a specific purpose. No guarantees can be accepted with respect to specific availability times and modes of operation of *ANGEL React* (including the *ANGEL React* App), or for a controlled shutdown by the Watchdog and the Restart Inhibit. Furthermore, due to the differing areas of use, ADRESYS does not guarantee that every emergency situation will be detected.

We, the manufacturer, and the supplier accept no liability for any injury, loss or damage resulting from the use of the *ANGEL React* system for purposes other than those for which it was intended.

# Declarations of conformity

Scanning the QR codes on the right you will find the declarations of conformity of our products.

*ANGEL React Genius*



*ANGEL React Genius ATEX*



*ANGEL React Watchdog*



*ANGEL React Restart Inhibit*



# FAQ

If you were not able to find the answer to your questions concerning our *ANGEL React* devices by reading our manual carefully, you might find them in our Frequently Asked Questions.

If you have some other questions not mentioned here, just contact our support.

## Setup and installation

|                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I cannot find the <i>ANGEL React</i> App in my app store.                                                              | Search for " <i>ANGEL React</i> " or " <i>ANGEL React</i> ADRESYS" and check that you have spelled it correctly or used the right QR code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| An error message appears when I enter my e-mail address in the <i>ANGEL React</i> Portal.<br><br>What do I need to do? | <ul style="list-style-type: none"> <li>• Check that your e-mail address is correct.</li> <li>• Each e-mail address can only be used once in the <i>ANGEL React</i> Portal. Make sure that you have not already used your e-mail address.</li> <li>• Contact our support if you need any further help. There might be an old registration that needs to be deleted by our support.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                        |
| The Genius is not displayed in the <i>ANGEL React</i> App.                                                             | <ul style="list-style-type: none"> <li>• Turn flight mode on and off again and enable Bluetooth®.</li> <li>• Check if the Genius is running (charged) and in pairing mode (blue flashing).</li> <li>• Check if your Genius is already connected to another smartphone. In this case, it is not visible to your smartphone.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| My Genius does not switch to pairing mode.<br><br>It flashes orange and beeps.                                         | <p>Take it of the Shirt/clip or out of the charging station and wait until the light stops flashing orange.</p> <ul style="list-style-type: none"> <li>• Restart the app.</li> <li>• Start pairing mode again by clicking and releasing the Genius into and out of the contacts on the charging station at least five times.</li> <li>• Make sure that you do not click and release the Genius too quickly or too slowly (around 1 second pause).</li> </ul>                                                                                                                                                                                                                                                                                                        |
| I want to continue the pairing process, but my app says "Bind timeout".                                                | <p>The Genius is no longer in pairing mode.</p> <ul style="list-style-type: none"> <li>• Check that the Genius is running.</li> <li>• Check if the Genius is in pairing mode (flashing blue).</li> <li>• When repeating the pairing process, ensure that you first search for devices again to have the correct device entry.</li> <li>• Restart the app. This usually checks all preconditions for correct operation, such as if Bluetooth® is enabled on your device.</li> <li>• Ensure in the system settings that the Genius is not already paired. The list of paired devices can be found in the Bluetooth® settings. If the Genius device appears under <b>Paired devices</b>, then please remove it (via "Delete", "Unpair", "Disconnect", etc.)</li> </ul> |

|                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| My <i>ANGEL React</i> Shirt system App is telling me that my electrodes on the cuffs do not have good skin contact.  | <ul style="list-style-type: none"> <li>• Check that all the electrodes are laying against your skin.</li> <li>• Moisten the skin or use some skin cream beneath the electrodes if necessary to improve the contact.</li> </ul> <p>The problem will normally resolve itself quickly if the upper arm size of your <i>ANGEL React</i> Shirt is correct.</p>                                                                                                                        |
| <b>Daily use</b>                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Can I injure myself with the Clip Genius?                                                                            | In principle there is no risk of injury. However, if you are performing an activity where you have to regularly lay down or drop down onto the side with the Clip Genius, shift the Clip system holder onto another body part. Doing so will prevent bruises and other mechanical injuries.                                                                                                                                                                                      |
| Where can I find the battery charge status of my Genius?                                                             | <p>Connect the Genius to your smartphone.</p> <p>The Genius battery charge level is displayed on the <b>Genius</b> icon on the start screen of your app.</p>                                                                                                                                                                                                                                                                                                                     |
| What can I do to avoid raising the No Motion alarm during a meeting or any other activity with very little movement? | <p>The pre-alarm sounds if your Genius does not detect any movement for a certain amount of time.</p> <ul style="list-style-type: none"> <li>• The pre-alarm stops as soon as you move the Genius.</li> <li>• During a meeting and at times you do not move (a lot), you might need to remove the Genius from the cradle or clip to prevent getting false pre-alarms.</li> <li>• Do not forget to click it back on once your period of inactivity has come to an end.</li> </ul> |
| Is rain a problem?                                                                                                   | <p>Our standard Genius is not rated for water protection but can withstand light rain.</p> <p>There is also an IP54 rated Genius version available.</p>                                                                                                                                                                                                                                                                                                                          |
| Will the function of my <i>ANGEL React</i> Shirt system be impaired if I sweat heavily?                              | Our electronic components are sealed to protect against sweat and moisture. If your Shirt is very wet, you should change it as this can impair its functionality.                                                                                                                                                                                                                                                                                                                |
| What happens when my Task Timer expires?                                                                             | The <i>ANGEL React</i> system raises an alarm to remind you that the programmed time comes to an end. You can then extend or deactivate the timer. You will need a data connection to do this, otherwise our server will not know that you have extended or deactivated the timer. When the timer expires, an emergency alarm will be raised, and the emergency call chain will be activated.                                                                                    |
| What happens if my emergency contacts do not answer the automated voice call from the <i>ANGEL React</i> system?     | <p>No problem. Usually, your emergency contacts will see the emergency text messages when checking their smartphone.</p> <p>Depending on the configuration, they will also receive e-mails.</p> <p>They can make a return call to the system. A voice recording will inform them about the emergency and instruct them to check their text messages.</p>                                                                                                                         |
| What happens if the emergency responders arrive even though I do not need them?                                      | Our alarm path has several escalation levels, and you can cancel the emergency call chain yourself at any time. You do this by answering the calls from your emergency contacts.                                                                                                                                                                                                                                                                                                 |

|                                                                                                          |                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| How do I remove the Genius from my system's Bluetooth® setting?                                          | <ul style="list-style-type: none"> <li>The method differs from one smartphone to another. One way could be: <b>Settings</b> -&gt; <b>Bluetooth</b> -&gt; <b>Genius</b> -&gt; (gearwheel symbol) -&gt; <b>Forget/Remove</b>.</li> <li>Contact our support if you have any problems.</li> </ul>                                     |
| I do not need my Genius anymore (for good) and would like to pass it on to another person: what do I do? | <ul style="list-style-type: none"> <li>Make sure to deregister in the <i>ANGEL React</i> App with the help of our technical support.</li> <li>Delete the pairings on the Genius.</li> <li>Also read chapter Pairing an already used Genius with a new smartphone.</li> <li>If you have any problems, call our support.</li> </ul> |

## Problems and errors

|                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| My app does not start automatically when my smartphone starts.                       | <p>Check in the app settings that the option <b>Start app automatically</b> is enabled.</p> <p>Check if auto-start for the app is supported on your smartphone. If not, try to configure auto-start for the <i>Angel React</i> App manually in your system settings.</p>                                                                                                                                                                                                                                                                                                                      |
| My smartphone battery is discharged, and the Genius is beeping.                      | <p>Remove the Genius from the holder and charge your smartphone. The system will then be ready to be used again.</p> <p><i>ANGEL React</i> requires both Genius and a smartphone to function and cannot activate the emergency call chain without them.</p>                                                                                                                                                                                                                                                                                                                                   |
| My Genius is clicked into the contacts of the Shirt or clip, but it is not flashing. | <ul style="list-style-type: none"> <li>The battery may be fully discharged, or the Genius may have been clicked onto the contacts incorrectly.</li> <li>Note that the Genius luminous strip ("arrow") on the shirt must point towards the back of your upper arm, for example.</li> </ul>                                                                                                                                                                                                                                                                                                     |
| My Shirt Genius beeps when I move my arms.                                           | <p>This indicates that the shirt is not making ideal skin contact.</p> <ul style="list-style-type: none"> <li>Make sure the shirt is sitting snugly against your skin.</li> <li>You can turn off the beeping by setting the sound settings to <b>Important</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                    |
| My Genius beeps continuously.                                                        | <p>This can mean that the app wants your attention.</p> <ul style="list-style-type: none"> <li>Check your app for notifications or dialogs.</li> </ul> <p>A recurring beep can also signal that your smartphone is not nearby and the Bluetooth® connection between the smartphone and the Genius has been lost.</p> <ul style="list-style-type: none"> <li>Make sure that your smartphone is within wireless range.</li> <li>Make sure that the <i>ANGEL React</i> App is active.</li> <li>Check whether the app has been closed by the system settings ("Battery optimization").</li> </ul> |
| The Genius and app show orange.                                                      | <p>The app normally tells you what is the problem. For example, the battery of the Genius may be empty.</p> <p>The app and Genius also switch to orange if there are problems with the emergency call or mobile data.</p> <p>The problem can sometimes be resolved by waiting.</p> <p>If you need to take action, your Genius will inform you with audible signals.</p>                                                                                                                                                                                                                       |

|                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I don't know why the Genius and app show red.                                          | <p>There are several possible reasons.</p> <ul style="list-style-type: none"> <li>• Contact our support if the app does not provide you with enough information.</li> <li>• Be aware that the system will not be able to place emergency calls while red.</li> </ul>                                                                                                                                                                                                                 |
| Why does the <i>ANGEL React</i> App say that the emergency call is not 100% available? | This percentage only relates to the percentage by which the app has been connected to the emergency contacts since it was started. It does not say anything about the connection at the present time. You may have lost the data connection previously, which would reduce the percentage.                                                                                                                                                                                           |
| The emergency call is sending me a message that my location is inaccurate.             | <ul style="list-style-type: none"> <li>• Check whether you have activated the location.</li> <li>• Ensure that you have granted precise location permission to the app.</li> <li>• In some working environments, such as inside buildings, it might not be possible to precisely determine your location. Consider using IPS in the future.</li> </ul>                                                                                                                               |
| My firmware update has failed, what should I do?                                       | <p>If an error occurs during the Genius' firmware update, e.g., because your smartphone enters standby status, the app shows <b>Update failed</b>. Proceed like this:</p> <ul style="list-style-type: none"> <li>• Power-off the Genius and restart the <i>ANGEL React</i> App.</li> <li>• Connect smartphone and Genius to the charging station.</li> <li>• Retry the firmware update.</li> <li>• Please contact support if the firmware update fails more than 2 times.</li> </ul> |
| I lost my Genius, is there anything I should do.                                       | <p>Yes!</p> <p>Since your personal data is attached to your Genius, contact our support. They will clear your personal data from the device. This is necessary for you to use your e-mail address again for a new pairing for example.</p>                                                                                                                                                                                                                                           |

### Questions concerning Watchdog and Restart Inhibit

|                                                                                                |                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| My Watchdog cannot be operated with a power bank, what can I do?                               | Modern power banks are often designed for intensive charging of smartphones. The Watchdog is sometimes not recognized as a „load“ due to the low power consumption, which is why the power bank may switch off. Use another power bank or use another supply method via USB-C.                                                                                            |
| I would like to protect more than 4 users with one single Watchdog; what can I do?             | You can install multiple Watchdogs and connect them to a single system using a Splitter.                                                                                                                                                                                                                                                                                  |
| Despite being pressed, the green restart button on the Restart Inhibit lights up continuously. | <p>This may be due to the following:</p> <ul style="list-style-type: none"> <li>• You might not have acknowledged an active alarm on the Watchdog.</li> <li>• The operating voltage may not be connected to the Watchdog (USB-C cable not connected or loose).</li> <li>• The cable for the potential-free contact is not correctly connected to the Watchdog.</li> </ul> |

|                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The emergency-off circuit is not closed/activated by the Restart Inhibit; what can I do?</p>                                                                    | <p>Check the following:</p> <ul style="list-style-type: none"> <li>• Is the operating voltage connected to the Watchdog (USB-C cable not connected or loose)?</li> <li>• Is the cable for the potential-free contact correctly connected to the Watchdog?</li> <li>• Is the Restart Inhibit being supplied with line voltage?</li> <li>• Are the internal fuses, 4 A gG 10x38 mm or 250 mA 5x20 mm, intact.</li> <li>• Have you pressed the green restart button on the Restart Inhibit?</li> <li>• Have you acknowledged an active alarm on the Watchdog?</li> </ul> |
| <p>I need to remove the Watchdog (for using it somewhere else); what can I do to ensure that the emergency-off function does not remain permanently triggered?</p> | <p>You do not need to uninstall your Restart Inhibit.</p> <ul style="list-style-type: none"> <li>• Insert the short-circuit adapter instead of the Watchdog and the triggering is blocked.</li> <li>• After inserting the adapter, simply press the green restart button once.</li> </ul>                                                                                                                                                                                                                                                                             |

# Support

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We are available from Monday to Friday during office hours. If you are unable to reach us, please leave us a message and we will get back to you directly. We make every effort to respond to all your concerns as quickly as possible.

