

//ANGEL React

Shirt and Clip system

Quick Start Guide

Shirt and Clip, Version ENU 1.1, 06/2024

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We have taken great care in compiling the information in this document to ensure that it is as useful, accurate, and reliable as possible. However, ADRESYS assumes no responsibility for any inaccuracies it may contain.

The users bear full responsibility for any application of our products.

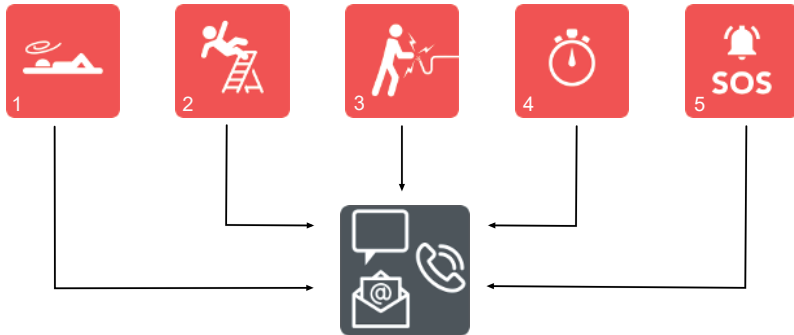
Table of contents

| | |
|--------------------------|-----------|
| Welcome | 4 |
| About ANGEL React | 5 |
| Safety | 6 |
| Colors and icons | 9 |
| Installation | 11 |
| Operation | 12 |
| Technical data | 15 |

Welcome

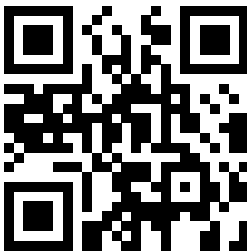
Thank you for opting for an *ANGEL React* system, which we have developed to increase your safety at work.

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 |
| 3 | Electrical accident (Shirt system only!) | | |

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 should be able to help you straight away, as your location will also be sent to them.



Now you are all set up to work safely.

We hope you enjoy using our product.

Install the *ANGEL React* App on your smartphone and connect it to the Genius via Bluetooth®. Follow the instructions in the manual.

About ANGEL React

ANGEL React is available as a Shirt system and a Clip system.

The Shirt system detects:

- No Motion (motionlessness)
- Fall accidents
- Electrical accidents
- Elapsed Task Timer
- Manual alarm



The Clip system detects:

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



The **ANGEL React Shirt system** can be used with the *ANGEL React* T-Shirt.

The **ANGEL React Clip system** can be used with either a clip or smart trousers. For more information about smart trousers contact us at angelreact@adresys.com.

Both systems work with a Genius and an app

ANGEL React Genius

- 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®.
- The Shirt Genius is attached to the left upper arm of the Shirt, the Clip Genius can be attached to a waistband, for example, or in the cover pocket of your smart trousers.

The **ANGEL React App** runs on your smartphone. It carries out the emergency communication.

Additional ANGEL React products

For more safety at work, combine your ANGEL React Shirt or Clip system with additional products like the *ANGEL React Watchdog* or an Indoor Positioning System (*ANGEL React Location Beacon*). Learn more about this from your *ANGEL React* Sales Partners.

ANGEL React is a product from ADRESYS Adaptive Regelsysteme Gesellschaft m.b.H.

Safety

This Quick Start Guide gives you a brief overview of the *ANGEL React* equipment and its handling.

It contains important instructions for the safe, proper, and efficient use of this equipment. Any use of the *ANGEL React* equipment other than that described in this Quick Start Guide and the user manual 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 Quick Start Guide and the user manual carefully before using your *ANGEL React* Shirt system or Clip system.
- ▶ Contact our support if you do not understand any of the instructions in this document.
- ▶ Follow all the safety instructions, warnings, and other instructions of the Quick Start Guide and the user manual.
- ▶ Only use the *ANGEL React* Shirt or Clip system 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 the *ANGEL React* system as described in the Quick Start Guide and manual.
- ▶ Always keep the Quick Start Guide or the manual ready to hand when you are using your *ANGEL React* system.

The following warnings are used in this Quick Start Guide

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.

Designated use

The *ANGEL React* Shirt system or Clip system detects different kinds of accidents: motionlessness, fall accidents, manual alarm, elapsed Task Timer and electrical accidents (only the Shirt system). It can save lives by calling for help using the emergency call chain.

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 safety equipment as defined in prENorm DIN VDE V 0825-1 or -11 and no PPE as defined in regulation (EU) 2016/425.

Some of the conditions for the use and performance of *ANGEL React* 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, or suitability for a specific purpose. No guarantees can be accepted with respect to specific availability times and modes of operation for *ANGEL React* (including the app). Furthermore, due to the differing areas of use, ADRESYS does not guarantee that every emergency situation will be detected.

Neither we, nor the manufacturer, nor the supplier will be liable for any injury or damage resulting from the use of the *ANGEL React* system for purposes other than those for which it was intended.

This section only contains some of the legal information and has been shortened to make it easier to read. The complete, current, and legally binding documents, along with our terms of business, terms of use, and software license conditions can be found here:



Safety instructions

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.
- ▶ 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.
- ▶ Only have the equipment repaired by ADRESYS or a service contracting party listed on our website.

Personal safety

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

Environmental conditions

- ▶ Do not use the *ANGEL React* system under ambient conditions that exceed the temperature and humidity limits listed in the user 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 or vapors.

Notes for safe operation

- ▶ Do not open the system components of your *ANGEL React* equipment.
- ▶ Do not touch the electronic components as this may result in injury and malfunctions.
- ▶ 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.

Colors and icons

Colors of the ANGEL React system

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

Colors in Genius and app

| | | |
|--------|------------------|--|
| Green | READY | Genius and app are working correctly. |
| Orange | LIMITED | There are problems. Note the status message in the app. |
| Red | NOT READY | The system is not working correctly. Action is essential. Note the status message. |

Colors only on the Genius


| | | |
|---------------|-----------------|--|
| Blue flashing | Pairing mode | The Genius must flash blue before pairing with the <i>ANGEL React</i> app is possible. |
| All colors | Firmware update | Stop working and wait until the update is complete. |







Colors of the Genius on the charging station

| | |
|----------------|-----------------------------------|
| Constant red | Battery is not charging properly. |
| Green flashing | Battery is charging. |
| Constant green | Battery is full. |

If you are using the Watchdog, be aware that it uses a different color logic.

Icons in the ANGEL React App

| | | |
|---|--------|--|
|  | Genius | <p>The Shirt or Clip Genius processes all the data that is recorded by the sensors. The following are displayed here:</p> <ul style="list-style-type: none">• <i>Optional: skin contact with the ANGEL React Shirt electrodes</i>• Genius battery level |
|---|--------|--|

| | | |
|---|---|--|
|  | <p>Emergency call</p> | <p>Here you can find information about the following:</p> <ul style="list-style-type: none"> • Account details and location • Practice alarm • A link to Help Coordination Portal • The emergency call services |
|  | <p><i>Optional: electrical accident</i></p> | <p><i>The ANGEL React Shirt system detects an electrical accident by measuring the voltage drop between both upper arms.</i></p> |
|  | <p>Fall accident</p> | <p>ANGEL React detects a free fall with impact. If this is followed by motionlessness, the system assumes a fall accident.</p> |
|  | <p>No Motion</p> | <p>ANGEL React detects motionlessness if you do not move for an extended period.</p> |
|  | <p><i>Optional: Watchdog</i></p> | <p>An activated Watchdog ensures that the electrical circuit it is connected to is interrupted after an emergency.</p> |
|  | <p>Task Timer</p> | <p>The Task Timer can be used in the following situations:</p> <ul style="list-style-type: none"> • For activities involving increased risk • If your smartphone has no data connection <p>The start of a Task Timer is transferred to the server. If you do not acknowledge a pre-alarm after the timer is elapsed, an alarm can be triggered even without a data connection.</p> |

Installation

Installing the app on your smartphone

1. Download the *ANGEL React* App. Use the smartphone that you carry with you during your daily work.
2. Deactivate the battery saver option/battery optimization.
3. Allow the app to access:
 - Bluetooth®
 - Location
 - Phone calls and text messages



Connecting the Genius to the app

1. Use the QR code to watch the explanatory video on pairing.
2. Make a note of the serial number and key on the back of the Genius. You might need them when pairing.

Once you have completed pairing, the Genius often requires a firmware update. This can take up to 20 minutes.

- ▶ Place the Genius on the charging station during the update.



Entering emergency contacts

1. Your emergency contacts will be notified in the event of an emergency by the *ANGEL React* App. For this reason, choose people nearby that could quickly help in case of an accident.
2. Create several emergency contacts and make one of them your primary emergency contact.
3. Before every job, activate the appropriate contacts for your work situation in the portal.
4. Raise a practice alarm to check that your emergency contacts receive the emergency text messages (optional: e-mails) and an automated voice call.

Help Coordination Portal

Your emergency contacts will receive a link to the *ANGEL React* Help Coordination Portal in the text messages (and optional e-mails) with detailed information about the accident and your location.

On the portal your emergency contacts find a list of steps they can follow to help you.

Operation

Daily use

DANGER

Serious injuries due to voltage contact



ANGEL React does not protect you against contact with voltage or electrical accidents.

- ▶ Always observe the applicable safety regulations and your duty of care.
- ▶ Do not deliberately induce contact with voltage.

At the beginning of your working day:

WARNING

Risk due to lack of data or Bluetooth® connection

The *ANGEL React* system may not work reliably or be able to place emergency calls if the data or Bluetooth® connection is not activated or if these connections are missing. You should not assume that the system can call for help in every situation.



- ▶ Ensure that the *ANGEL React* App and the Genius (and also the *Watchdog* if you use one) are always connected via Bluetooth®.
- ▶ Check the notifications in the *ANGEL React* App.
- ▶ Start the Task Timer if your cell phone does not have a permanent data connection.

1. Enable Bluetooth® and the location on your smartphone, and start the *ANGEL React* App.
2. Attach the Genius to your working clothes: Click it into your clip or the Shirt cradle. If you wear smart trousers, put the Genius into the cover pocket and ensure, that the contacts are placed correctly.
 - 2.1 The app will usually connect to your Genius automatically. You will then hear a connection tone and the status will change to **READY**.
 - 2.2 The Genius emits an audible signal if something is not right.
3. Always keep your smartphone with you or nearby and check the status of the app at regular intervals.

At the end of the working day:

1. Remove the Genius and place it in the charging station supplied to recharge it overnight.
2. Disable Bluetooth® and the location to save your smartphone's battery.

Important information about washing the *ANGEL React* Shirt (T-Shirt):

1. Remove the Genius and the cradle before washing.
2. Do not tumble dry or iron the shirt, it contains electrical conductors.

Emergency detection

Pre-alarm

In the event of motionlessness, a fall accident or an elapsed Task Timer, the Shirt system and the Clip system first raise a pre-alarm (acoustical and vibration).

If you do not acknowledge the pre-alarm, even if it gets louder, your system issues an alarm and sends emergency messages to your emergency contacts.

Electrical accident: no pre-alarm

If the *ANGEL React* Shirt system detects an electrical accident, it raises an alarm immediately, there is no pre-alarm.

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.

Task Timer

The Task Timer should be used in the following situations:

- Before carrying out high-risk work.
- If your smartphone will temporarily have no access to a data connection, and so will be unable to place an emergency call, e.g., in a basement.

You program the Task Timer for a certain period of activity, and it saves the last known GPS position. The Task Timer alarm sounds before the programmed time elapses. Now disable or extend the timer. If not, the Task Timer activates the emergency call chain as soon as the programmed time ends.

If your smartphone has no internet access or access to mobile data, you will not be able to extend or disable your Task Timer. The emergency call chain will be activated automatically when the programmed time has ended.

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

Do not start the Task Timer unless your smartphone has enough charge for the Task Timer runtime, plus at least one hour in reserve. Otherwise, you will be unable to deactivate the Task Timer, or receive any calls, and the emergency response chain will be set in motion.

Technical data

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

| Temperature | |
|---|------------------------------------|
| Operation | -10 to +55 °C |
| Storage | -10 to +55 °C |
| Storage: optimum storage temperature to maximize battery life | +10 to +25 °C |
| While charging | 0 to +45 °C while charging |
| Humidity | |
| Air humidity | 10-90%, no condensation |
| Battery | |
| Charging time | No more than 2 hours |
| Genius running time | Typically 12 hours (1 working day) |
| Battery type | Lithium-ion battery |

In accordance with part 15 of the FCC provisions, operation is subject to the following conditions:

- This device must not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Support

Contact us:

ADRESYS Adaptive Regelsysteme Gesellschaft m.b.H.

Oberndorferstraße 35/C

A-5020 Salzburg

Contact: support@adresys.com

Telephone: +43 59495 6969

We are available from Monday to Friday between 8:00 am and 6:00 pm.

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.



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//ANGEL React

Location Beacon

Quick Start Guide

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The users bear full responsibility for any application of our products.

Table of contents

| | |
|-----------------------|-----------|
| Welcome | 4 |
| Safety | 5 |
| Installation | 7 |
| Operation | 10 |
| Technical data | 11 |

Welcome

Thank you for opting for an *ANGEL React* Location Beacon.

The Location Beacon is part of the Indoor Positioning System (IPS) for the *ANGEL React* system. It transmits location information and is used together with other *ANGEL React* products like the *ANGEL React* Shirt or Clip system.

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 company name and floor level inside of an office building.

The *ANGEL React* system detects emergencies while working and immediately reacts by calling for help. It informs your emergency contacts, and they can find your indoor location information on the location page of the *ANGEL React* Help Coordination Portal, together with other location information that is available to the system.

How to get started (for operators)

1. Carefully plan the positioning of the Location Beacon as part of your IPS. If you would like some support, we are happy to help. Contact us at angelreact@adresys.com.
2. Scan the ADMIN QR code of the Location Beacon and enter relevant data about its position for accurate indoor location information.
 - ➔ From now on the Location Beacon provides information about its location to everyone using an *ANGEL React* Shirt or Clip system.
3. Mount the Location Beacon(s).

How to get started (for users)

1. Use your *ANGEL React* Shirt or Clip system.
 - ➔ When you are nearby, the Location Beacon automatically works with your system.
2. Now you are all set up to work safely. We hope you enjoy using our product!

For more information, scan the QR code.

The *ANGEL React* Location Beacon is a product of ADRESYS Adaptive Regelsysteme Gesellschaft m.b.H.



Safety

This Quick Start Guide contains important instructions for the safe, proper, and efficient use of an *ANGEL React* Location Beacon. Any use of the device other than that described in this Quick Start Guide and the user manual 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 Quick Start Guide and the user manual carefully before using the Location Beacon.
- ▶ 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 Quick Start Guide and the user manual.
- ▶ Only use the Location Beacon 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 the Location Beacon as described in the Quick Start Guide and manual.

The following warning is used in this Quick Start Guide

DANGER



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

Designated use

The *ANGEL React* Location Beacon is a device that enables location determination as part of an IPS installation. It helps to find a casualty in case of an emergency alarm more quickly by providing the *ANGEL React* system with accurate indoor location information.

The *ANGEL React* Location Beacon can locate a casualty, if they are using an *ANGEL React* Shirt system or Clip system: if the Genius detects an incident, the *ANGEL React* system activates the emergency call chain and provides the emergency contacts with all necessary information about the accident (e.g., location).

The Location Beacon is not a personal emergency call system; it cannot set the emergency call chain in motion by itself. Just the *ANGEL React* system can do this.

It is also not a general tracking system that helps finding goods in a storehouse. It locates *ANGEL React* users in case of an emergency and sends their location information to the *ANGEL React* system.

The following applies to the *ANGEL React* system:

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.

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Neither we, nor the manufacturer, nor the supplier will be liable for any injury or damage resulting from the use of the *ANGEL React* system for purposes other than those for which it was intended.

This section only contains some of the legal information and has been shortened to make it easier to read. The complete, current, and legally binding documents, along with our terms of business, terms of use, and software license conditions can be found here:



General instructions

- ▶ If your Location Beacon or any *ANGEL React* accessory do 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.
- ▶ Only have the equipment repaired by ADRESYS or a service contracting party listed on our website.

Environmental conditions

- ▶ Do not use the *ANGEL React* Location Beacon under ambient conditions that exceed the temperature and humidity limits listed in this Quick Start Guide.
- ▶ Protect your Location Beacon against moisture and high levels of humidity.
- ▶ Never use the Location Beacon in a potentially explosive working environment.

Notes for safe operation

- ▶ Do not open the *ANGEL React* Location Beacon.
- ▶ Disconnect the Location Beacon from the power supply if you notice any kind of malfunction or damage. A malfunction of the Location Beacon may be indicated by smoke or an unusual odor.
- ▶ Ensure that the *ANGEL React* system works with the Location Beacon using Bluetooth®. To check this scan the ADMIN QR code of the beacon.

Installation

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

Mounting

DANGER

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 DIN rail for mounting.
- ▶ If your DIN 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's not behind suspension grids etc., as this will affect the signal strength.

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

Connection to power supply

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

Connection via power socket

DANGER



Risk of injury during the installation process

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

The Location Beacon can always be powered via a 230-volt socket.

1. Make sure an appropriate socket is installed in the vicinity of the Location Beacon.
2. Connect the Location Beacon to the socket via the cable included in the scope of delivery.

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.

Connection to the ANGEL React system

Once the *ANGEL React* Location Beacon is mounted and connected to a power supply, the operator needs to set it 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 you Location Beacon.

In the scope of delivery of your Location Beacon, you can find a QR code. Scan this code to connect to and manage your device.

1. Open your *ANGEL React* App and go to **OTHER SETTINGS** and **SCAN QR CODE**.
2. Scan the 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.

Operation

For users the Location Beacon is very easy to handle. It works automatically with every Genius in its vicinity and sends location information to every *ANGEL React* system nearby.

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.

Checking the data

It is important to check the functioning of the Location Beacon and the location data from time to time.

1. Check the data in one of the following ways:
 - 1.1 Trigger a test alarm: your location data will be shown in the Help Coordination Portal of your emergency contacts.
 - 1.2 Find the location data in your ANGEL React App
 - ▶ via **OTHER SETTINGS** and **LOCATION**
 - ▶ via **EMERGENCY CALL** and **MY LOCATION**

Technical data

The operating conditions define the physical environment and the parameters for using the Location Beacon. Only use it under the following operating conditions:

| | |
|-------------------------------|---------------------------|
| Temperature Operation/Storage | -10 to +55 °C |
| Rated current | 500 mA |
| Rated voltage | 5 V \pm 10% |
| Maximum operating height | 2000m 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 no cleaning.

Support

Contact us:

ADRESYS Adaptive Regelsysteme Gesellschaft m.b.H.

Oberndorferstraße 35/C

A-5020 Salzburg

Contact: support@adresys.com

Telephone: +43 59495 6969

We are available from Monday to Friday between 8:00 am and 6:00 pm.

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.



AD-S04201-00

Art.Nr.: AD-S04201-00



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GTIN-Nr.: 9120116812968

//ANGEL React

Watchdog

Quick Start Guide

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We have taken great care in compiling the information in this document to ensure that it is as useful, accurate, and reliable as possible. However, ADRESYS assumes no responsibility for any inaccuracies it may contain.

The users bear full responsibility for any application of our products.

Table of contents

| | |
|-----------------------------|----------|
| Welcome | 4 |
| Usage | 5 |
| Safety | 6 |
| Technical data | 8 |
| Space for your notes | 9 |

Welcome

Thank you for opting for an *ANGEL React* Watchdog. As part of the *ANGEL React* program, we developed the Watchdog to make your working environment safer.

ANGEL React notices whenever you get into a dangerous situation while working and immediately reacts by calling for help.

In the event of an emergency, the *ANGEL React* App sends – according to your configuration - text messages, e-mails, and an automated voice call to your emergency contacts. They can help you straight away.



The Watchdog has a potential-free contact to command the voltage source you are working on to switch off.

Combined with an **ANGEL React Shirt system**, the Watchdog commands to switch off in the following cases:

- Motionlessness (No Motion)
- Fall accident
- Electrical accident
- Elapsed Task Timer
- Manual alarm



Combined with an **ANGEL React Clip system**, the Watchdog commands to switch off in the following cases:

- Motionlessness (No Motion)
- Fall accident
- Elapsed Task Timer
- Manual alarm



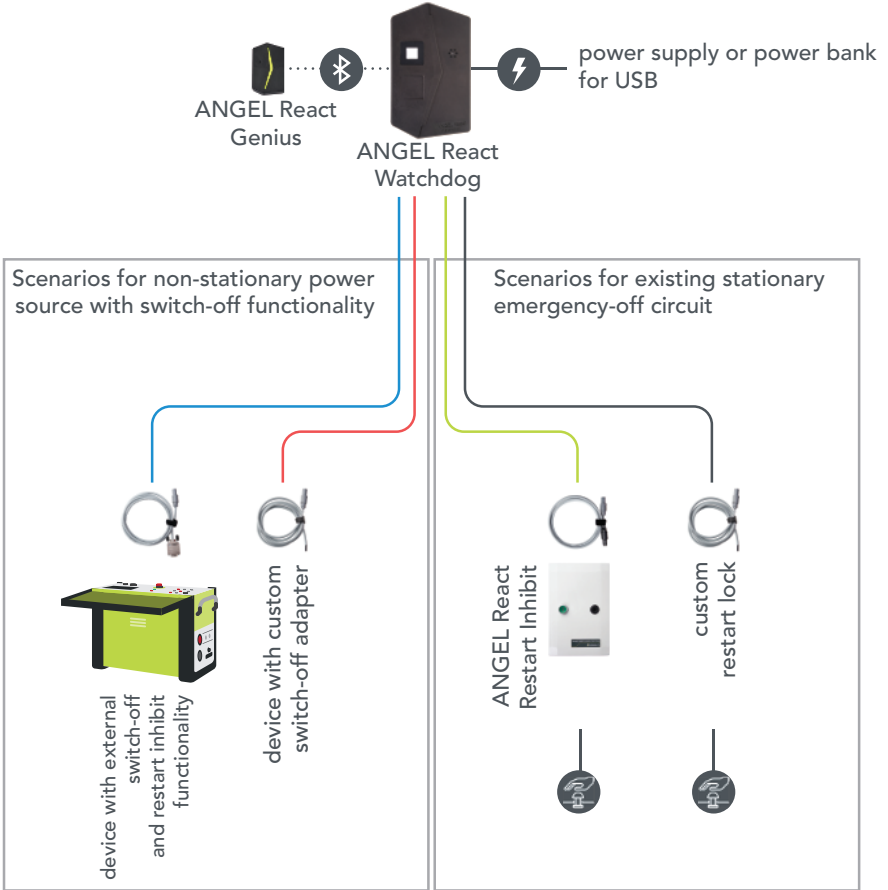
How to get started

1. Scan the USER QR code on your *ANGEL React* Watchdog. You can find a QR code scanner in your *ANGEL React* App (Tap the Watchdog icon).
➔ Your app will from now on automatically connect to the *ANGEL React* Watchdog.
2. Follow the instructions in the user manual via the shown QR code.
3. Now you're all set up to work safely. We hope you enjoy using our product!



The *ANGEL React* Watchdog is a product of ADRESYS Adaptive Regelsysteme Gesellschaft m.b.H.

Usage



Safety

This Quick Start Guide contains important instructions for the safe, proper, and efficient use of the *ANGEL React* Watchdog. Any use of the Watchdog other than that described in this Quick Start Guide and the user manual 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 Quick Start Guide and the user manual carefully before using your *ANGEL React* Watchdog.
- ▶ 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 Quick Start Guide and the user manual.
- ▶ Only use the *ANGEL React* Watchdog 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 the *ANGEL React* Watchdog as described in the Quick Start Guide and manual.
- ▶ Always keep the Quick Start Guide or the manual ready to hand when you are using your *ANGEL React* Watchdog.

Designated use

The *ANGEL React* Watchdog helps you in critical work situations and can save lives. It is based on the *ANGEL React* Shirt or Clip system and is an additional component that provides added safety.

In cases of emergency (e.g., electrical accident) the *ANGEL React* Watchdog has a potential free contact, which can be used to command to power off e.g. electrical voltage sources, tools, machinery or other equipment.

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

The Watchdog is no personal safety equipment as defined in Regulation (EU) 2016/425. It is also not a medical device as defined in Regulation (EU) 2017/745 of 05/25/2017.

Some of the preconditions for the use and performance of the *ANGEL React* Watchdog are outside ADRESYS's sphere of influence. ADRESYS aims to ensure high availability of its 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. Furthermore, due to the differing areas of use, ADRESYS does not guarantee that every emergency situation will be detected.

Neither we, nor the manufacturer, nor the supplier will be liable for any injury or damage resulting from the use of the *ANGEL React* system and *ANGEL React* Watchdog for purposes other than those for which it was intended.

This section only contains some of the legal information and has been shortened to make it easier to read. The complete, current, and legally binding documents, along with our terms of business, terms of use, and software license conditions can be found here:



General instructions

- ▶ Comply with the workflows described in this document. Avoid interruptions or distractions that could affect safety.
- ▶ Only use the Watchdog if the circumstances permit it.
- ▶ If your Watchdog 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.
- ▶ Only have the equipment repaired by ADRESYS or a service contracting party listed on our website.

Environmental conditions

- ▶ Do not use the *ANGEL React* Watchdog under ambient conditions that exceed the temperature and humidity limits listed in the user manual/Quick Start Guide.
- ▶ Protect your Watchdog against moisture and high levels of humidity.
- ▶ Never use the Watchdog in a potentially explosive working environment.

Notes for safe operation

- ▶ Operate your Watchdog with a working restart lock. If this is not the case (or you are not sure about it), use the *ANGEL React* Restart Inhibit. Only trained, qualified electrical personnel may install this Restart Inhibit into an existing emergency-off circuit.
- ▶ 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.
- ▶ Ensure that the *ANGEL React* system and the Watchdog are always connected via Bluetooth®. A missing connection is shown in the *ANGEL React* App.
- ▶ 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.

Technical data

Operating Conditions

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 to +55 °C |
| Rated current | 500 mA |
| Rated voltage | 5 V ±10% |
| Maximum operating height | 2000m above sea level |
| Usage | Indoors |
| Air humidity | 5 - 95%rh, non-condensing |
| Overvoltage category | OVC II |
| Shutdown | Single pole |
| Pollution degree | PD 2 |
| Protection class | 2, totally insulated |

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 | 250 Vrms/5A, 2x0,5mm ² , 2m length with Sub-D-connector: AD-S04128 with <i>ANGEL React</i> Connector: AD-S04130 with open end: AD-S04131 |

The Watchdog requires no maintenance and must not be cleaned.

Space for your notes

Support

Contact us:

ADRESYS Adaptive Regelsysteme Gesellschaft m.b.H.

Oberndorferstraße 35/C

A-5020 Salzburg

Contact: support@adresys.com

Telephone: +43 59495 6969

We are available from Monday to Friday between 8:00 am and 6:00 pm.

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.



AD-S04141-00

Art.Nr.: AD-S04141-00



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GTIN-Nr.: 9120116811572

//ANGEL React

Restart Inhibit

Quick Start Guide

ANGEL React Restart Inhibit Quick Start Guide, Version ENU 1.1, 07/2024

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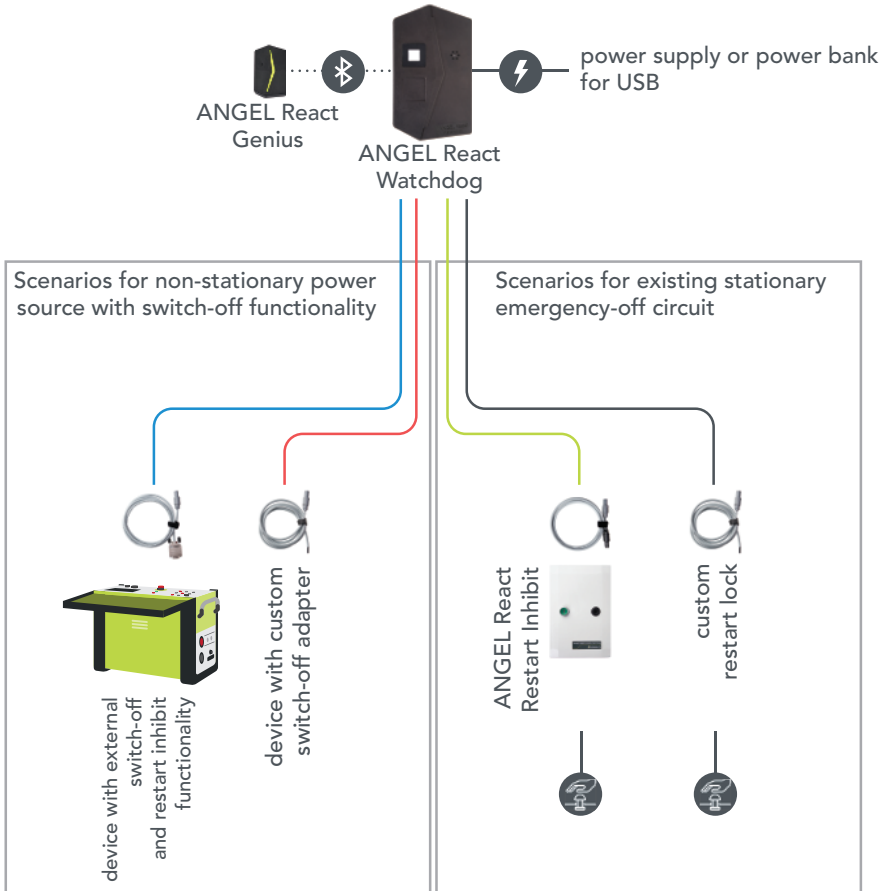
The users bear full responsibility for any application of our products.

Table of contents

| | |
|----------------------------|-----------|
| Welcome | 4 |
| Safety | 5 |
| Installation | 8 |
| Emergency detection | 10 |
| Technical data | 11 |

Welcome

Thank you for opting for an *ANGEL React* Restart Inhibit. Combine it with an *ANGEL React* Watchdog, and 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 also be supplied with mains voltage.

Safety

This Quick Start Guide gives you a brief overview of the *ANGEL React* Restart Inhibit and its handling.

It contains important instructions for the safe, proper, and efficient use of this equipment. Any use of the *ANGEL React* equipment other than that described in this Quick Start Guide and the user manual 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 Quick Start Guide and the user manual carefully before using your *ANGEL React* Restart Inhibit.
- Contact our support if you do not understand any of the instructions in this document.
- Follow all the safety instructions, warnings, and other instructions the Quick Start Guide and the user manual.
- Only use the *ANGEL React* Restart Inhibit 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 the *ANGEL React* Restart Inhibit as described in the Quick Start Guide and manual.
- Always keep the Quick Start Guide or the manual ready to hand when you are using your *ANGEL React* Restart Inhibit.

The following warning is used in this Quick Start Guide:

DANGER



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

Designated use

ANGEL React helps you in critical work situations and can save lives.

Always use your *ANGEL React* Restart Inhibit in combination with an *ANGEL React* Watchdog. After detecting an incident like an electrical accident or a fall accident the Watchdog gives the command to interrupt the electrical circuit that is connected.

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

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.

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.

This section only contains some of the legal information and has been shortened to make it easier to read. The complete, current, and legally binding documents, along with our terms of business, terms of use, and software license conditions can be found here:



Operator qualifications

- ▶ Only authorized and qualified personnel who are regularly trained in electrical engineering are allowed to carry out the following duties:
- ▶ the connection and disconnection of the Restart Inhibit to the emergency-off circuit(s)
- ▶ the opening of the Restart Inhibit
- ▶ the changing of the fuses of a connected Restart Inhibit

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.
- ▶ If your *ANGEL React* Restart Inhibit 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.
- ▶ Only have the equipment repaired by ADRESYS or a service contracting party listed on our website.

Environmental condition

- ▶ Do not use your *ANGEL React Restart Inhibit* under ambient conditions that exceed the temperature and humidity limits listed in the user manual/Quick Start Guide.
- ▶ Protect your Restart Inhibit against moisture and high levels of humidity.

Notes for safe operation

- ▶ The Restart Inhibit and its accessories may only be used if they are in **perfect technical condition**.
- ▶ Do not install the Restart Inhibit if the housing has been damaged during transport.
- ▶ Take the device out of operation and have it uninstalled by a qualified electrician 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 care to use the right fuses, otherwise the safe function of the device can not be guaranteed.
- ▶ Never touch any live parts inside the Restart Inhibit.
- ▶ Keep the key to the cover of the Restart Inhibit in a safe place to prevent unauthorized persons from opening it.

Installation

DANGER



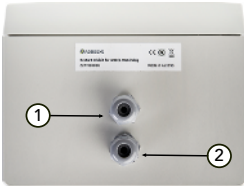
Risk of injury during the installation process

- ▶ Only trained and qualified electricians must install the Restart Inhibit in existing emergency-off circuits.

For the installation of the Restart Inhibit, a trained and qualified electrician must observe the following:

1. Observe the circuit diagram on the inside of the Restart Inhibit cover.
2. Install the Restart Inhibit vertically at +/- 90 degrees.

In general, the following applies for the bottom 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 for the top of the Restart Inhibit:

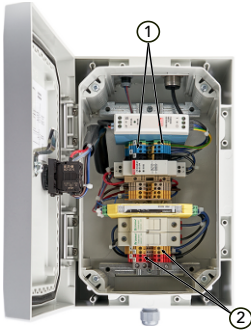


- 1 Socket for the Watchdog plug (Lemo socket).
- 2 USB-C port for the Watchdog power supply.

The Lemo socket on the top of the Restart Inhibit is used to connect it to the Watchdog via the *ANGEL React* Watchdog Connection Cable.

- ▶ If no suitable cable is enclosed for connecting the Watchdog to the Restart Inhibit, one must be ordered from ADRESYS. The order number is AD-S04130. Do not use a different cable.

Connections inside the Restart Inhibit:



- 1 Connect the power cable wires (100-240 VAC) for the Restart Inhibit according to the connection diagram on the inside of the cover.
- 2 Wire the cables of the emergency-off circuit(s) to the red and yellow terminals according to the connection diagram on the inside of the cover

Emergency detection

If your *ANGEL React* system detects an emergency (No Motion, fall accident, electrical accident, manual alarm, or elapsed Task Timer), it sounds a local alarm using acoustic and optical signals, the *ANGEL React* App informs your emergency contacts, and 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, following the detection of an emergency, you wish to reactivate your Restart Inhibit and thus the entire *ANGEL React* system, 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 go out after being pressed once.

Troubleshooting

If the restart button light does not go out permanently after pressing, there may be various 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.

Technical data

You can find the complete technical data in the user manual. Only the most important data is listed here.

Operating conditions

| | |
|-------------------------------|---------------------------|
| Temperature Operation/Storage | -10 to +55 °C |
| Rated current | 500 mA |
| Rated voltage | 5 V ±10% |
| Maximum operating height | 2000m above sea level |
| Usage | Indoors |
| Air humidity | 5 - 95%rh, non-condensing |
| Overvoltage category | OVC II |
| Shutdown | Single pole |
| Pollution degree | PD 2 |
| Protection class | 2, totally insulated |

| | |
|--------------------------|-----------------------------|
| Maximum operating height | 2000 m above sea level |
| Usage | Indoors, no direct sunlight |
| IP protection | IP 20 |
| Housing flammability | UL 94-V0 |
| Protection class | 2, totally insulated |
| Air humidity | 5 - 95% rh, non-condensing |
| Pollution degree | PD2 |

The Restart Inhibit requires no maintenance and must not be cleaned.

Connections

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

otes

Support



AD-S04147-00

Art.Nr.: AD-S04147-00



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