

Shirt and Clip system

Shirt and Clip system, Version ENU 1.3, 02/2026

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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.

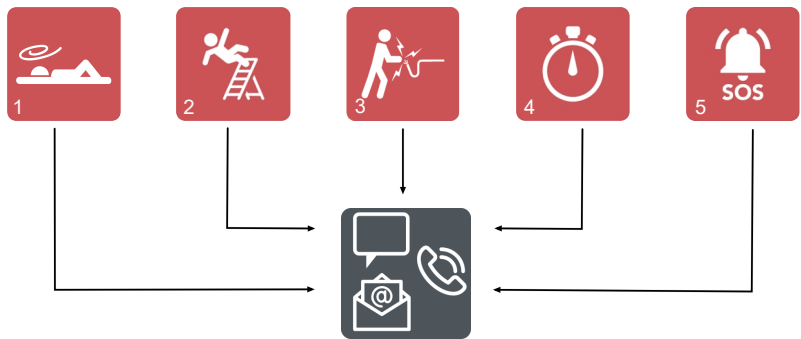
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Welcome

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 (App/Genius)
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 shall inform the emergency responders and help you straight away if possible. Your location information will also be sent to them.



QR code for the App.
Install the *ANGEL React* App on your smartphone and connect it to the Genius via Bluetooth®.



QR code for the manual.
Follow the instructions in the manual.

Now you are all set up to work safely.
We hope you enjoy using our product.

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 (App/Genius)



The Clip system detects:

- No Motion (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.

Both systems work with a Genius and an app

ANGEL React Genius

- The **ANGEL React Genius** is an electronic data processing unit that detects motionlessness and fall accidents, 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 T-Shirt, the Clip Genius can be attached to a waistband, or, for example, in the cover pocket of your smart trousers.
- There are two types of the Genius available, Genius and Genius ATEX. The Genius ATEX is designed for use in explosive hazardous areas classified as Zone 2/22. For more information please read the manufacturer information.

The **ANGEL React App** runs on your smartphone. It is used for configuration and 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**.

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 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 manual carefully before using your *ANGEL React* Shirt system or Clip system. If you are working with a Genius ATEX, additionally read the 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 of the Quick Start Guide and the 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 incidents: motionlessness, fall accidents, manual alarm (App and Genius), 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 emergency signal system as defined in prEN 60947-2 VDE V 0825-1 or -11, and it is 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:



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 IIB T135 °C Dc

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

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.

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 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.

Notes for safe operation

- ▶ Do not open the system components of your *ANGEL React* equipment.
- ▶ 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 the *ANGEL React* system and reflect its status. 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.
GENIUS: blue flashing	Pairing mode	The Genius must flash blue before pairing with the <i>ANGEL React</i> app is possible.
GENIUS: 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	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: • Account details and location information • Emergency contacts • A function to raise a test alarm • A link to Help Coordination Portal
	Task Timer	The Task Timer can be used in the following situations: • For activities involving increased risk • If your smartphone has no data connection 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: • All kind of system settings • Information about your devices • Information about your location • A QR code scanner

Getting started

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



Pairing the Genius to the app

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 your Genius is not flashing blue, use the following QR code to see an explanatory video.
 - ▶ Open the *ANGEL React* App and follow the instructions. The app will guide you through the pairing process and the 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.

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 can quickly help in case of an accident.
2. Create several emergency contacts to increase the likelihood of immediate help.
3. Raise a test 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 e-mails) with information about the emergency, about your location and about how to help you. They can also chat with other emergency contacts in the portal.

Operation

Daily use

DANGER



Serious injuries due to voltage contact

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

- ▶ Do not deliberately induce contact with voltage.

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.

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.

Important information about washing the ANGEL React Shirt:

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



Emergency detection

Pre-alarm

In the event of motionlessness, a fall accident, a Manual Genius alarm 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 might temporarily lose data connection, and therefore will be unable to place an emergency call, e.g., in a basement.

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.



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.



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.



Do not start the Task Timer unless your smartphone has enough battery 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 call chain will be activated.

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

For more information about technical data, declaration of conformity or any other topic, please read our *ANGEL React* Manual. You find the according QR code in chapter [Welcome](#) (page 4).

Support

Contact us:

ADRESYS Adaptive Regelsysteme Gesellschaft m.b.H.
Oberndorferstraße 35/C
A-5020 Salzburg
E-mail: support@adresys.com
Telephone: +43 59495 6969

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.



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GTIN-Nr.: 9120116814016

Location Beacon

Version ENU 1.1, 06/2024

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

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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

Watchdog

Quick Start Guide Watchdog, Version ENU 1.2, 06/2025

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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 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.

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 (App/ Genius)



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 (App/ Genius)



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

Usage

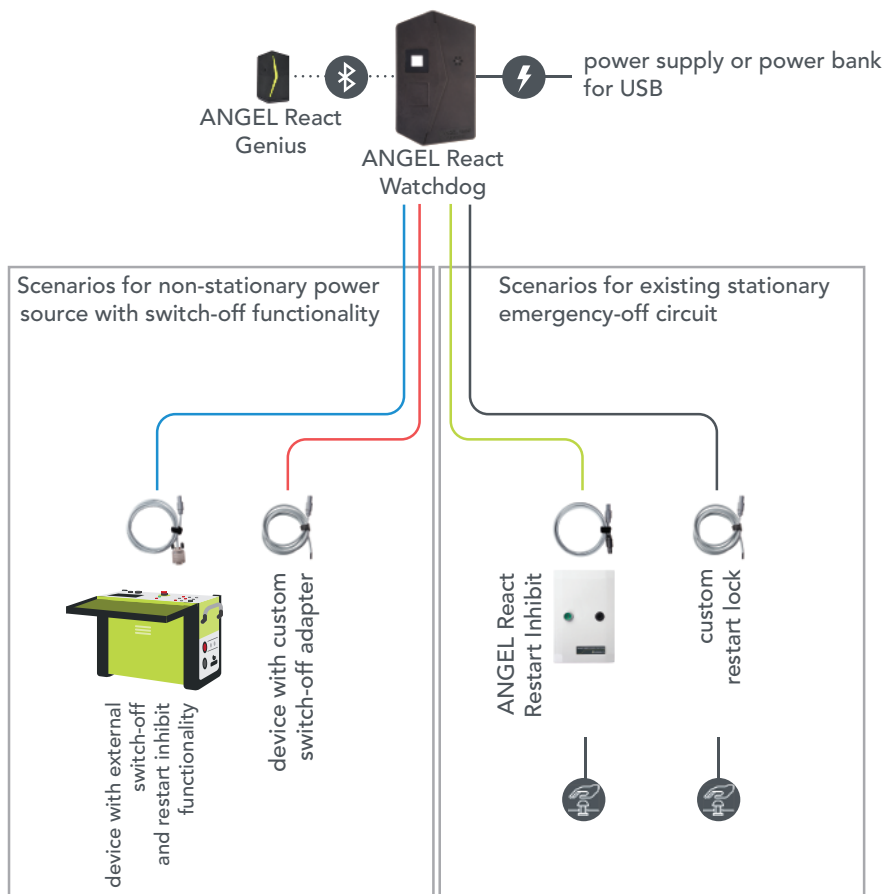
The Watchdog can be used in different functions.

Usage as a switch-off device

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



Usage as IPS

By default, a Watchdog can be used as a location beacon and as part of an Indoor Positioning System (IPS).

If you do not need this IPS function, switch it off in your **Settings**.



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

Getting started

Wiring (switch-off function)

To use the Watchdog as a switch-off device connect it to the system you are working with.

Depending on your use case there are different options for connecting the Watchdog to the power supply.

Use with a non-stationary power source with switch-off function:

- Connect the Watchdog to the power supply via the connection cable.

Use with an existing stationary emergency-off circuit:

- Use a certified restart lock, e.g., the *ANGEL React* Restart Inhibit.

Pairing app and Watchdog (switch-off function)

The *ANGEL React* App and the Genius must be connected to the Watchdog before using it for the first time.



1. Scan the square QR code (USER) provided on an extra sheet of paper.
→ Your app will from now on automatically connect to the *ANGEL React* Watchdog.
2. Follow the instructions in the manual via the shown QR code.

If the Watchdog requires a **firmware update** after connecting to the app, you can do this via a direct ADMIN connection from the app to the Watchdog.

- Scan the round QR code (ADMIN) and start the update.

Using the Watchdog as part of an IPS

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.



You do not need to pair your app with the Watchdog if you use your Watchdog just as part of an IPS and not as a switch-off device.

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 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 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 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 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 +50 °C
Rated current	500 mA
Rated voltage	5 V $\pm$ 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
Number of possible connections to Genius	4 (Usage just as switch-off device) 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	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 only be cleaned with a dry cloth.

Support

Contact us:

ADRESYS Adaptive Regelsysteme Gesellschaft m.b.H.
Oberndorferstraße 35/C
A-5020 Salzburg
E-mail: support@adresys.com
Telephone: +43 59495 6969

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.



AD-S04141-01

Art.Nr.: AD-S04141-01



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Restart Inhibit

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

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The product information, specifications, and technical data embodied in this document represent the technical status at the time of writing. Subject to change without notice.

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.

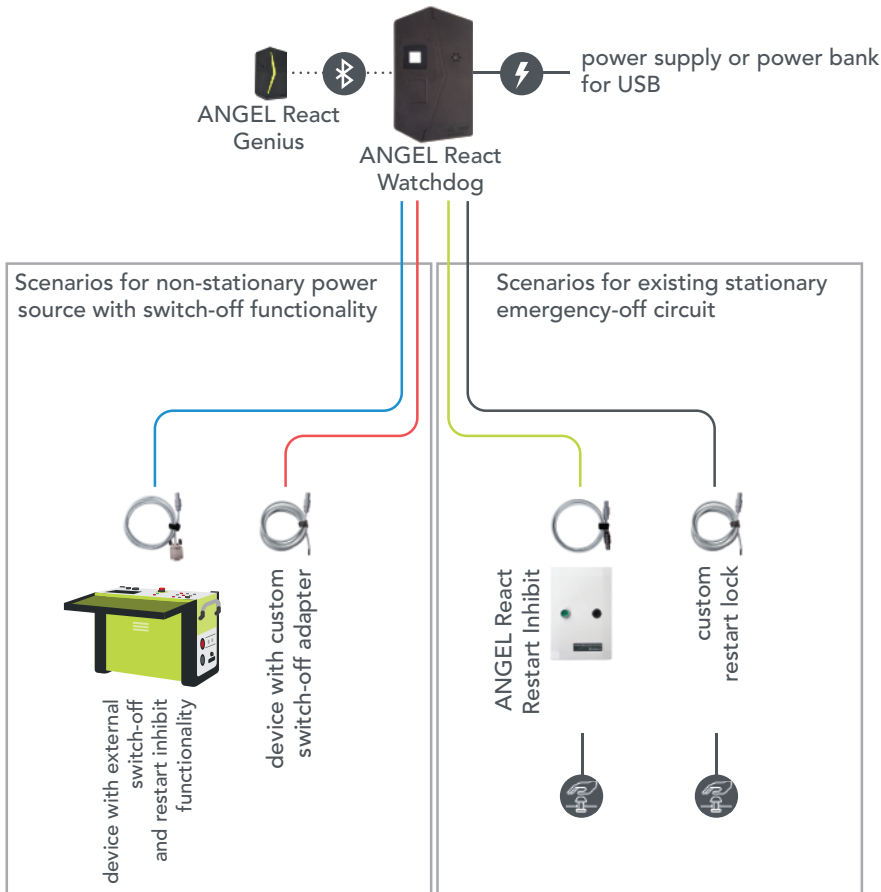
The users bear full responsibility for any application of our products.

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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



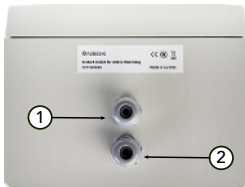
Risk of injury during the installation process

- 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:

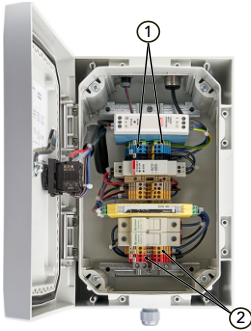


- 1 Socket for the Watchdog plug (Lemo socket).
- 2 USB-C port for the Watchdog power supply.

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 $\pm$ 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



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