

Instructions
for use of clue and
clue BASIC

clue



Congratulations on your purchase of a clue device.

You have chosen the most modern, micro-compact system available on the worldwide telemedicine market today. This technology is already in use in international medicine and space travel, but with **clue** or **clue BASIC**, the private user now has the opportunity as well, for the first time, to monitor information on his state of health, understandably processed and independently of time and place.

With clue or clue BASIC, you can measure beside your state of health also your current stress level (risk of burnout) at any time using its unique evaluation methods.

This picture on the cell phone shows a graphic with the average heart rate, the heart rate variability and, for personal stress management, the current balance between stress and recovery.

The transmission and display depends on the technical parameters of your cell phone.

Therefore, please pay attention to how to activate it (see page 26 to 29).

TABLE OF CONTENTS

Introduction	3
1. General	
symbols for cautions and tips	6
2. Purpose	
clue	7
clue Basic	10
3. Explanations Of Terms	
Heart Rate Variability HRV	12
Autonomous Nervous System	14
Sympathetic Nervous System	14
Parasympathetic Nervous System	15
4. Use	
Overview of Device / Operating Elements	16
4.1 Start up	18
4.2 Memory	18
4.3 Recording with fixed electrodes	19
4.4 Recording with adhesive electrodes	20
4.5 Recording in motion	20
5 Transmitting	
Device Overview / DIP-Switches	21
Bluetooth- Connection / Pairing	22
Bluetooth- Connection / Transmitting	24
– by Cell Phone using Infrared	26
– by USB IrDA Stick to PC or Notebook	26

6. Activation of the 365/24 Service Center	
by Cell Phone or PC/Notebook	28
7. Activation for Receiving a Graphic Evaluation	
on your Cell Phone via the 365/24 Service Center	28
8. Accessing the Evaluations	
via the 365/24 Service Center	29
9. Cleaning and Care	
of your clue or clue BASIC	30
10. Device Components and Accessories	
– how to order	31
11. Technical Data	32
12. Technical Requirements for Data Transmission	
– for cell phone or PC/Laptop	33
13. Possible errors and troubleshooting	34
14. Important Information	
– for safe use of the product	36
15. Symbols and its Meaning	37
16. Guarantee	39

1. General

These instructions contain information that you will need for the use and maintenance of the device. Please read them carefully so that you understand the use of the functions and can obtain the greatest benefit possible from your **clue** or **clue BASIC**.

The following symbols for cautions and tips should be observed.



CAUTION!

This symbol points out possible sources of error. The product may be damaged if not observed.



NOTICE!

This symbol indicates important information for use.

2. Purpose

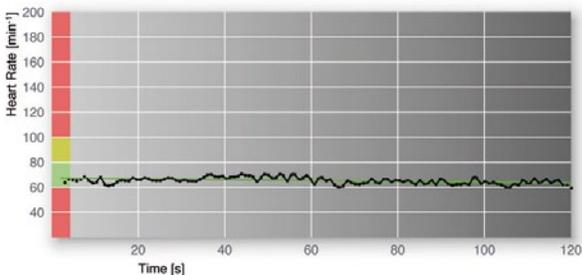
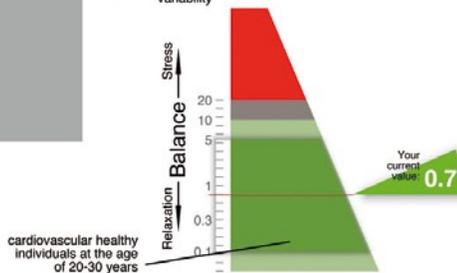
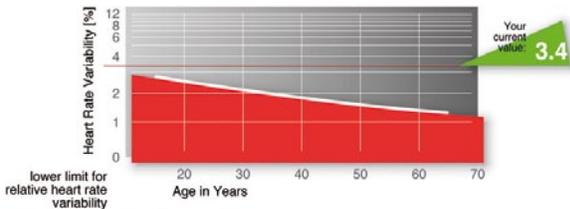
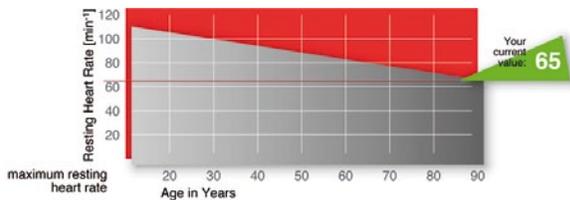
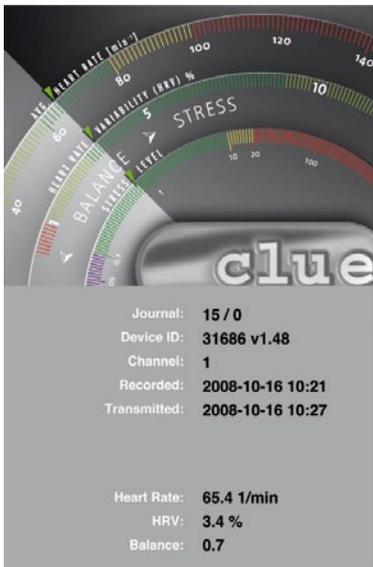
With **clue** or **clue BASIC**, you possess a system for recording and evaluating your autonomous nervous system as indicator of cardiovascular stress, recovery and balance, among other things. The displayed evaluations of your heart rate and heart rate variability (HRV) help you check and maintain your health.

clue

The data recorded by **clue** is transmitted from the device either:

- directly (standard-setting) using a USB-IrDA stick included with the device to your PC or notebook. In this case, the graphic processing of the evaluation takes place within the clue device itself. The transmission and display then depends on the technical parameters of your PC or notebook. Therefore, please pay attention to the technical requirements.
- telemetrically (using IrDA or Bluetooth connection) by cell phone to the **365/24 Service Center** (www.cluemedical.com) where the processed evaluations, presented as graphs, can be accessed electronically at any time and from any place (see section 6). If desired, you can also be notified by MMS/SMS and access a graphic representation immediately by WAP push on your cell phone.
- or telemetrically (using alternatively the included USB-IrDA stick or Bluetooth connection) via a PC or





notebook with Internet connection to the **365/24 Service Center** where the processed evaluations, presented as graphs, can be accessed electronically at any time and from any place.

For this purpose you have to install and open a small utility program (clueSync, you'll find under www.cluemedical.com) on your PC or notebook.

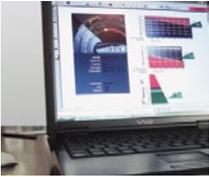
The picture on the left shows the visualized data when accessing the recordings via Internet (365/24 :: clue central login in our homepage under www.cluemedical.com) or when transmitted directly to your PC or notebook without using cluemedical's server solution.
Please pay attention how to activate and access these services (see page 26 to 29).

clue BASIC



With **clue BASIC**, transmission takes place only by direct transmission through a USB-IrDA stick to your PC or notebook. In this case, the graphic processing of the evaluation takes place within the clue BASIC device itself. The output on your desktop is shown page 8.

Scope of Use

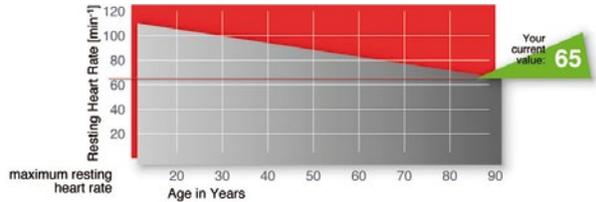


A recording time of 2 minutes and a sampling rate of 1.000 Hz allows **clue** or **clue BASIC** to derive conclusions of the highest quality on heart rate variability (HRV) and the influence of the autonomic nervous system on heart activity and the cardiovascular system through intelligent signal processing, especially through the highly precise recording and evaluation of RR intervals (beat to beat). This allows you, for the first time, to conduct personal stress management and prevent burnout in advance, for example.

The following details are recorded, evaluated and displayed from the 2-minute measurement.

1. Record of your heart and autonomous nervous system activity for 2 minutes
2. The heart rate, heart rate variability and balance between your stress and recovery values calculated from your heart activity.
3. A tachogram of the duration of the cardiac cycles (time difference between the individual heart beats)

You can use the scaling as a reference to see where you are with your values in comparison to normal values, especially also in respect to your age.



The intelligent risk-management of clue points - regarding this recording - towards our so called **Risk-Indicator!**
 Reasons can be medical and non-medical causes, possible by loss of contact during recording or handling errors. In case this Risk-Indicator shows up, a new recording is therefore recommended!
 If the Risk-Indicator still appears after a further recording, it is recommended to see as a precaution - your physician!

Furthermore included is an intelligent risk-management of clue, which points - regarding the actual recording - towards our so called **Risk-Indicator** (see graphic above)!

Reasons can be medical and non-medical causes, possible by loss of contact during recording or handling errors, but also shortly after exhausting sporty activities. In case the Risk-Indicator warning shows up, a new recording is therefore recommended!

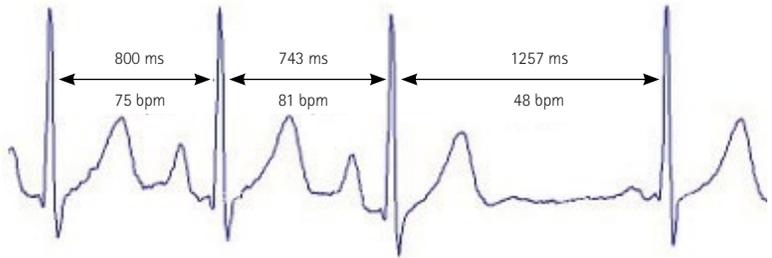
If the Risk-Indicator still appears after further recordings, it is recommended to see - only as a precaution - your physician!

3. Explanations Of Terms

Heart Rate Variability (HRV)

In healthy persons, the heart does not beat regularly like a clock. Rather, the interval between two heart beats is constantly changing.

ECG of a healthy person. The different intervals between the heart beats can be clearly seen.



In healthy persons, this apparent irregularity is not an expression of a heart rhythm disorder, but rather the result of a well functioning adaptation of the heart rate to current cardiovascular conditions.

Different organ systems contribute to the HRV, such as the heart, the autonomic nervous system and the vascular system. For this reason, disturbances in different organ systems are reflected as HRV disturbances. Therefore, the HRV can be interpreted as a global indicator for psychological, neurological and cardiac processes.

How Heart Rate Variability (HRV) accompanies our daily life

In obstetrics, the HRV, in the form of cardiotocography (CTG), has been used for a long time now as a valuable parameter for evaluating risk to the unborn life. If the unborn child experiences characteristic reductions in the HRV, this may indicate dangerous complications (e.g. compression of the umbilical cord) and be part of the indication for a Caesarean section.



In the meantime, in ambitious amateur and professional sports, the HRV has become an important measurement for optimal training monitoring. Regular athletic pursuits improve our HRV, which is the expression of an improved ability to regulate and an increased lifespan.



Chronic stress reduces the HRV, which is the expression of an impaired resilience of the cardiorespiratory system. Dangerous cardiovascular diseases may occur as a result.



People with a low HRV have a higher cardiovascular risk, i.e. the probability of a heart attack or sudden cardiac death is increased. After a heart attack, mortality is up substantially higher if the HRV is reduced.



The HRV is an expression of the aging of important organ systems. With increasing age, the ability of our body to regulate processes decreases, and the HRV sinks. At the time of the natural end of our lives, the HRV has also sunk to a minimum. For this reason, the HRV measurement allows conclusions regarding the biological age of our body.



In rest and relaxation, the HRV becomes heart coherent. The internal rhythms of breathing, blood pressure and heart rate are synchronized and the body regenerates. A condition that can specifically encourage heart coherence training.



Autonomous Nervous System

The autonomous nervous system, which consists of the sympathetic, parasympathetic and intestinal nervous systems, innervates the smooth muscles of all organs as well as the heart and glands. It regulates the functions of breathing, circulation, digestion, metabolism, glandular secretion, body temperature and reproduction that are so important to life. It cannot be arbitrarily controlled, or can be controlled with great difficulty – it is autonomic. In addition to the hormone system, it is one of the two information systems between the individual organs.

Sympathetic Nervous System

A component of the autonomous nervous system. It regulates the cardiovascular system, including organ activity, and causes increases in performance, elevates heart rate (pulse), blood pressure and other things and is also the expression or a measurement of stress. The organs controlled by the sympathetic nervous system are the smooth muscle fibers of all organs (vessels, intestines, excretory and sexual organs, hair, pupils), the heart muscle fibers and many glands (sweat glands, salivary glands, digestive glands). The fat cells, liver cells, renal tubuli, lymphatic tissues (e.g. thymus, spleen, lymph nodes) and parts of the immune system are also innervated by the sympathetic nervous system.



Parasympathetic Nervous System

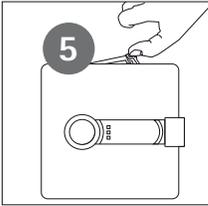
Other components of the autonomous nervous system. It is also described as the "resting nerve" since it is involved in metabolism, regeneration and the buildup of the body's own reserves. The parasympathetic nervous system provides for rest, recovery and protection and involuntarily controls most of the internal organs as well as the circulation. It reduces the heart rate (pulse) and blood pressure and is strongly influenced by the breathing.



The parasympathetic nervous system controls the smooth musculature and the glands of the digestive tract, the organs of elimination, the sexual organs and the lungs. It also innervates the atria of the heart, the tear and salivary glands in the head and the internal eye muscles. On the other hand, it has no direct influence on the sweat glands or the entire vascular system. Herein lies, as is generally known, the critical difference from the sympathetic nervous system, which innervates all the vessels.

4. Use

Overview of Device / Operating Elements



1 Operating button

2 Green LED

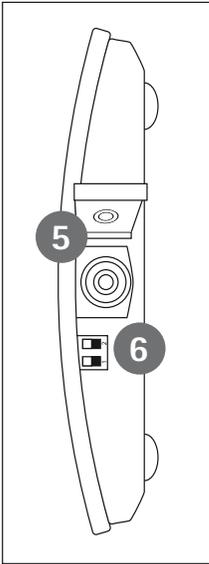
3 Yellow LED

4 Orange LED

5 Battery compartment cover

6 DIP switches for changing transmission mode

7 Connection socket for optional electrode cable

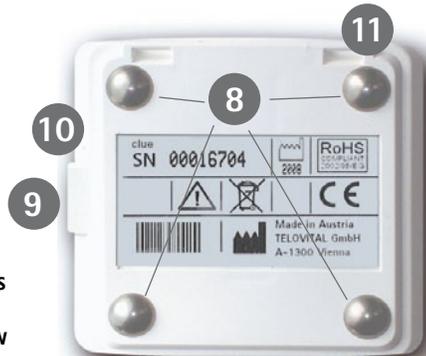


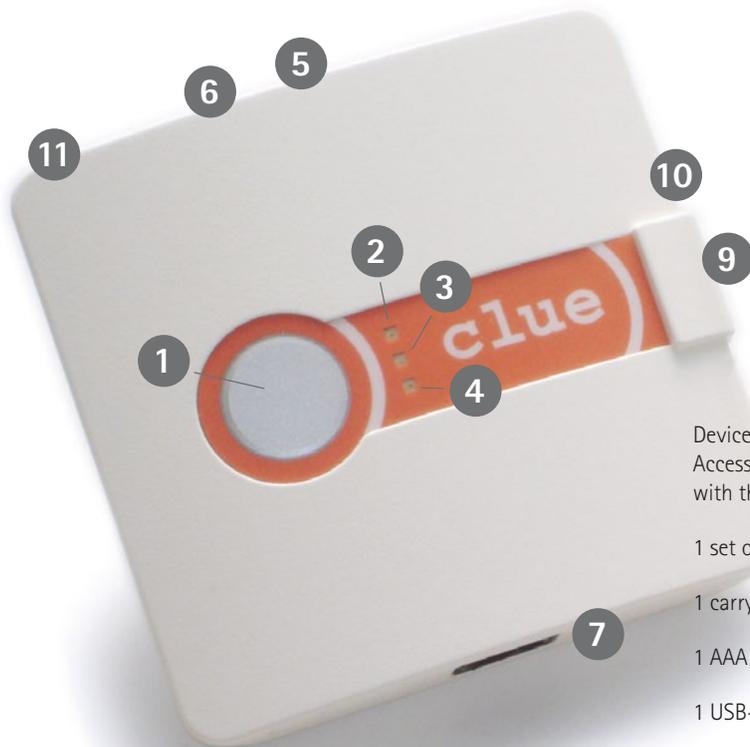
8 Fixed electrodes

9 Infrared window

10 Loudspeaker output

11 Carrying strap clip





Device and
Accessories included
with the device:

1 set of instructions

1 carrying strap

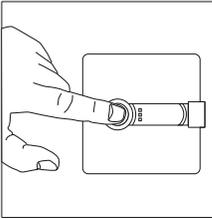
1 AAA battery

1 USB-IrDa stick

For replacement order
see Page 31

4.1 Use / Startup

In a first step, remove the small plastic strip protecting the battery.

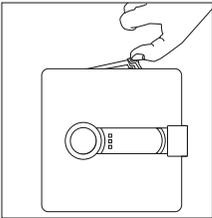


clue or **clue BASIC** is now immediately ready to use after pressing operating button 1 once.

The green LED 2 and a rising tone confirm that the device is ready to use.

The yellow LED 3 lights up if the memory is full. **clue** or **clue BASIC** can store a maximum of 30 recordings. In this case, transmit the data before you want to record again!

The orange LED 4 lights up if the electrical supply of the AAA battery is insufficient (low battery warning!).



To change the battery, the battery cover must be opened by pressing on the center of the cover in the direction of the arrow and lifting. Any customary, commercially available AAA battery is allowed.

The use of rechargeable 1.2 V NiMH batteries is also possible.

4.2 Memory

You can store up to 30 recordings with the device. The recording is automatically deleted after successful transmission.

Successful deletion is signaled by a falling tone.

You can also erase the entire memory by pressing the operating button for at least five seconds while the device is switched on.

4.3 Recording with fixed electrodes (standard)

Now switch the device on by pressing the device's operating button and press **clue** or **clue BASIC** to the skin. After starting, the device itself determines whether a signal can be detected by correct skin contact with the electrodes. If **clue** or **clue BASIC** finds a proper signal, recording begins automatically after another 5 seconds with the sounding of a short signal.

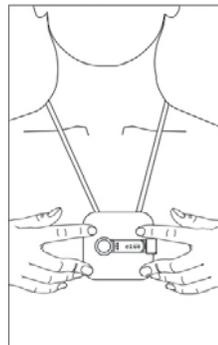
The green LED blinks during the 2-minute recording.

If skin contact is interrupted or the device is not pressed with sufficient pressure against the skin, it is indicated by a warning tone. The end of the recording is confirmed acoustically by a rising tone.

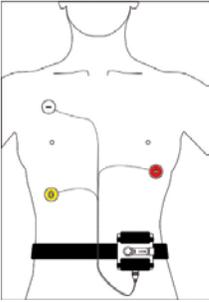
CAUTION!

Care must be taken that all four fixed electrodes are on the skin and that no piece of clothing comes between the electrodes and the skin. If the chest is hairy, **clue** or **clue BASIC** must be moved lightly back and forth before recording, and after that, increasing pressure on the skin must be used to ensure sufficient skin contact during recording. The device gives an acoustic warning of insufficient skin contact with a warning tone.

clue or **clue BASIC** should only be used on healthy, intact skin (not on scars, etc...) since, otherwise, the quality of the recording may be negatively influenced.



4.4 Recording with adhesive electrodes (optional)



You can also make recordings while walking, for instance, with the aid of adhesive electrodes. For this, however, you need the optionally available electrode cable and commercially available adhesive electrodes, which are not normally included in the standard purchased parts package.

Connect the electrode cable to **clue** or **clue BASIC** using the snap fastener with the adhesive electrodes. Remove the protective film to allow the electrode to stick. Position the adhesive electrodes with the correct polarity as shown in the picture.

4.5 Recording in motion

In order to avoid pulling, and therefore undesired artifacts, when using adhesive electrodes, fix the electrode cable to the skin with commercially available bandages, each a few centimeters below where the adhesive electrode is positioned.

When you switch **clue** or **clue BASIC** on, the device itself determines whether the fixed electrodes are in correct contact with the skin so that there is a signal.

If **clue** or **clue BASIC** finds a signal, recording begins automatically.

5 Transmitting

clue can transmit the stored data directly to the **365/24 Service Center** (365/24 :: clue central login)

by IrDA or Bluetooth over your cell phone or, already graphically processed, over a USB-IrDA stick

directly to your PC or notebook over an IrDA interface in portable document format (pdf).

Transmission by cell phone allows transmission worldwide. The transmission is only limited by the network requirements of the respective location and, if applicable, the technical standards of different providers. The recordings can be viewed and managed using a password, chosen by you, and the provided "activation code" at www.cluemedical.com.

	Switch 1	Switch 2
Pos. 1	Transmission to server	Bluetooth
Pos. 2	Direct Transmission	Infrared

clue BASIC

can only transmit the stored and graphically processed data directly to your PC or notebook in portable document format (pdf) using a USB-IrDA stick over an IrDA-compatible interface. It is not possible to transmit by cell phone to the **365/24 Service Center**. The transmission and display depends on the technical parameters of your PC or notebook.

Please make sure, that the DIP-Switches settings of your device is correct.

Switch 1 

Switch 2 

Pos. 1
Pos. 2

The DIP-Switches are located inside the battery compartment.



Observe the technical requirements described pages 26 and 33

Step	Preparation for Pairing	Preferences clue
1	Activate Bluetooth	
2	De-activate other Bluetooth- receivers close-by	
3	Check DIP-Switch settings	Please make sure, that the DIP-Switches settings of your device is correct
4	Switch on your clue	Press the button once – then release
5	Start pairing	Press the button once again and hold it for approx. 8 seconds. A signal should occur and a Bluetooth compatible device is sought.
6	Receiving device found	Once a Bluetooth-receiving device is found, the green LED flashes along with the yellow.
7	Confirm the successful pairing	
8	Pairing successful	

Preferences Receiving Device

Signal

Activate the Bluetooth-module and make it visible.
note: after successful pairing you can change the Bluetooth settings back to invisible.

Note: If you need additional information please read the cell phone user manual or ask your vendor

Please de-activate other Bluetooth-compatible devices within a radius of 7 meters to ensure successful pairing with the preferred device.

Short flash of orange-green-yellow LED – than the green LED lights

Descending tone – yellow LED flashes

On your receiving device a password is required.
Please enter 1111 and confirm.

Note: If you don't have a password call on your receiving device please make sure, that the device is visible. If both LED's flash, it could be possible that another, still activated Bluetooth-device near you has received the password call of your clue device. In this case wait for the failure tone and start the procedure again.

Green + yellow LED flashes
When no device is found:
Orange lights and three successive tones (twice short, once long)

Mostly you get from your device a success-report which you have to confirm. **Note:** You get also a positive signal from your **clue** device.

Successful: green LED lights and ascending tone
failure: orange LED lights and three successive tones (twice short, once long)

Transmitting via Bluetooth

clue

Please be sure that both DIP-Switches are in the right position, then press the button twice.

Yellow LED flashes

Receiving Device

On your receiving device you will get a message which you have to confirm (If you have authorized the clue device you will not get this message)

Note: you can find your clue device in a list of coupled/ authorized devices on your receiving device. You can change these settings so that you don't have to confirm a message for each transmission.

Signal

Yellow LED flashes, the green LED lights, if the transmission was successful.

Failure: orange lights and (twice short, once long)

Note:

During pairing don't wear your clue device on your body, because you would start a new recording and will therefore not be able to initiate pairing.

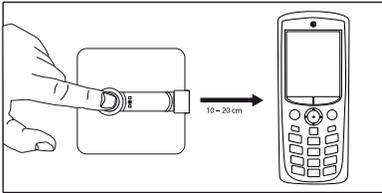
If you use adhesive electrodes please disconnect the ECG-cable from your clue device.

Note:

After successful pairing it is possible to set your receiving device back to "invisible".

For further information please read the operating manual of your receiving device or contact your vendor.

Transmitting by Cell Phone using Infrared Connection



To send data by cell phone using Infrared, activate the IrDA interface on your cell phone, in certain smart phones, the corresponding infrared modem connection (see the instructions for the respective cell phone for this). Position the interface in a direct line as shown in the picture, at a distance of 10 to 20 cm. Press the button twice.

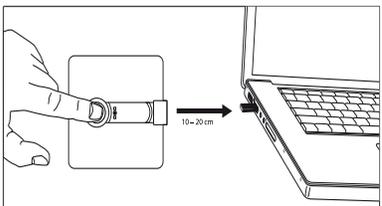
Before transmitting by cell phone, the device must be activated via the Internet at **365/24 Service Center** (see page 28).

Transmitting to 365/24 Service Center by the provided USB IrDA Stick via PC or Notebook with Internet Connection

When transmitting via a PC or notebook, the appropriate settings according to manufacturer's information for the USB IrDA stick must first of all be observed. The IrDA stick is connected to the PC or notebook by means of a USB plug. It may also be used with the IrDA interface of your notebook (Windows), if available. Before transmitting by cell phone, the device must be activated via the Internet at **365/24 Service Center** For this purpose you have to install and open a small utility program (clueSync, you'll find under www.cluemedical.com) on your PC or notebook.

Transmitting by the provided USB IrDA Stick directly to a PC or Notebook

NOTICE!



When transmitting directly to a PC or notebook, the appropriate settings according to manufacturer's information for the USB IrDA stick must first of all be observed. The IrDA stick is connected to the PC or notebook by means of a USB plug. It may also be used with the IrDA interface of your notebook (Windows), if available.

To transmit the data, position the interface in a direct

line as shown in the picture, at a distance of 10 to 20 cm. Press the button 1 twice. A window opens on your PC or notebook screen that allows the receipt of the data by mouse click. Successful transmission is then confirmed on the screen. You will then find a pdf file with the device name and serial number (S/N) on your desktop. This can be opened with the free software Acrobat Reader from Adobe and then individually managed.

Manufacturer is not responsible for the security of data transmitted directly to a PC or notebook since it is transmitted over an autonomous clue or clue BASIC system.

clue and **clue BASIC** confirm successful transmission by the blinking of the yellow LED and confirm the successful transfer of the data with a rising tone. Three consecutive tones (two short, one long) mean that **clue** and **clue BASIC** has not successfully transmitted the data, and the orange LED lights up. In this case, transmit the data again.

With each transmission, all measurements are transferred. About 25 KByte of data are transmitted for each recording. The memory is not automatically erased until after the successful transmission of the recorded data.

THE YELLOW LED BLINKS

The data is being transmitted. Once successful data exchange has taken place, a positive confirmation tone sounds for each record to confirm successful transmission.

THE ORANGE LED LIGHTS UP

If the transmission is unsuccessful, a negative confirmation tone sounds and the orange LED lights up. The stored data can then be transmitted in a new attempt if the AAA battery still indicates sufficient capacity.

Care must be taken during transmission that no IT devices (e.g. notebooks) with an activated infrared interface are in the vicinity. If the printout of the recording shows symbol \triangle beside the date and time, the time or date may no longer be correct (see page 35 / "Transmission by IrDA stick is not possible").

NOTICE!

Please make sure,
that the DIP-Switches
settings of your
device is correct.

CAUTION!

6. Activation for Use of the 365/24 Service Center by Cell Phone or PC/Notebook

- On the internet, go to the www.cluemedical.com
- On the home page, click on "365/24 :: clue central login".
- Click on "Create a new account".
- Enter an individual user name.
- Enter an individual password. The password must contain at least 8 characters and at least one capital letter and one numeral to ensure the security of your data.
- Confirm the password by re-entering it.
- Now enter the serial number (S/N) and the 6-digit activation code of the device you'll find on the backpage of these instructions and click on "Activate Device".
- A confirmation of successful activation pops up.

7. Activation for Use of Receiving a Graphic Evaluation on your Cell Phone via the 365/24 Service Center

- On the internet, go to www.cluemedical.com
- On the home page, click on "365/24 :: clue central login"
- Choose the desired language
- Enter your "user name" and your "password" as stored when you activated the **365/24 Service Center** use.
- Log in

- Under "My devices" click on the clue "Device ID" from which you want to receive the graphic.
- Under "Delivery" click on "Add delivery" and mark under "Typ" = SMS plus under "Destination" the phone number of the receiving cell phone (+country code, area code, phone number).
- If required, you can choose another language and time zone below.
- Click on "Add Delivery".

8. Accessing the Evaluations via the 365/24 Service Center

- On the Internet, go to www.cluemedical.com.
- On the home page, click on "365/24 :: clue central login".
- Choose the desired language.
- Enter your "user name" and your "password" as stored when you activated the **365/24 Service Center** use.
- Log in.
- Under "My ECGs" you'll see all successfully transmitted evaluations under your device number(s), listed on the left side.
- Click on the Adobe Reader sign of the evaluation you want to see.
- A pdf-file with the 2-page graphic evaluation shows up.

9. Cleaning and Care of your clue or clue BASIC

- The device and the optional available electrode cables should be cleaned regularly with a soft, lint-free cloth, only lightly moistened.
- Warm water, mild soap (pH neutral) or a commercially available agent appropriate for plastic can be used as a cleaner. Please see that liquids never get into the inside of the device since this could lead to the destruction of the device.
- If deficiencies regarding functional safety are detected while using the device, please contact the manufacturer.

To protect the environment, we ask the user to use and dispose of all materials, as well as their cleaners, in the proper manner. The device causes no environmental damage, either when operated or when it is turned off.

10. Device Components and Accessories

All device components and accessories can be reordered directly from the manufacturer or from a specialized dealer at the address given.

Description	Order Number
clue BASIC (Product group 101)	101 0 06 04 01
clue (Product group 101)	101 0 06 04 02
Carrying strap	100 0 06 07 01
Electrode cable	100 1 06 03 01
25 piece adhesive electrodes	100 0 06 01 01
Carrying belt	102 0 06 06 01
USB-IrDa stick	100 0 06 02 01

11. Technical Data

Dimensions: L/W/H	76 mm x 72 mm x 15 mm
Weight	
With battery	56 g
Without battery	49 g
Operating temperature range	10° C to 45° C
Storage temperature range	-20° C to 60° C
Transport temperature range	-20° C to 60° C
Relative humidity	10% to 95% uncondensed
Operating life without change of battery	>500 measurements
Input voltage	10 mV p-p
DC offset correction	< 300 mV
Frequency range:	
Adhesive electrodes	0.05 – 40 Hz (-3dB)
Fixed electrodes	0.1 – 40 Hz (-3dB)
Sampling rate	1000 Hz
AD conversion resolution	12-bit
Storage	Max. of 30 recordings can be stored before transmitting
Battery type	AAA alkaline (1.5 V) Rechargeable types allowed (NiMH 1.2 V)
Battery indicator	Optical
Transmission	
IrDA	Modem (IrComm) to 365/24 Service Center by Internet data transfer
Bluetooth	to 365/24 Service Center by Internet data transfer
IrDA	Obex push (pdf file) directly to PC or notebook
Bluetooth	Obex push (pdf file) directly to PC or notebook

12. Technical Requirements for Data Transmission

With **clue** or **clue BASIC**, you have acquired a state-of-the-art quality product. Since **clue** or **clue BASIC** use a second-party system independent of the manufacturer for displaying the recordings which the manufacturer cannot influence, this may lead under certain circumstance to technical errors. We are glad to help you in configuring your current computer systems.

Requirements for cell phone use

Your cell phone must have an IrDA interface or Bluetooth capability and must be capable of using the Internet to ensure data transmission.

Read the instructions for your cell phone very carefully or obtain the advice of your cell phone's supplier.

System requirements for direct transmission to PC or notebook

- PC or notebook on which Adobe Reader, version 6.0.1 or later, has been installed. Adobe Reader, can be downloaded for free at www.adobe.com
- Available USB connection
- Operating system: Windows XP - Service Pack 2 or Windows VISTA

Become very familiar with the use of your PC or notebook. When using another USB IrDA stick besides the one included with the **clue** or **clue BASIC**, follow its installation instructions.

CAUTION!

13. Possible errors and troubleshooting



Error

The orange LED blinks when the device is switched on

The yellow LED is lighted when the device is switched on

A warning tone sounds during recording

Transmission by cell phone is not possible,
orange LED blinks along with acoustic signal

Transmission by IrDA stick is not possible,
orange LED blinks along with acoustic signal

You have forgotten your login data
Direct Transmission by IrDA stick is ok,
but the pdf is not on the desktop

The symbol  is next to the date and time
in the pdf printout

Troubleshooting

Change the AAA battery (section 4.1 Use, CHANGING THE BATTERY)

Device memory is full – transmit the data to erase the memory (point XX TRANSMISSION)

The device has lost contact with the skin and signals this until it has contact with the skin again. During recording, press the device with the fixed electrodes firmly against the skin. If the chest is hairy, move the device lightly back and forth to ensure sufficient skin contact during recording. When recording with adhesive electrodes, adhere the electrode cable to the skin with commercially available bandages, each a few cm below the connection with the adhesive electrodes.

The IrDA interface or Bluetooth on your cell phone is not activated – follow the instructions for your cell phone! In case of an IrDA transmission, the distance between the interfaces is either too large or too small, or the interfaces are not positioned parallel. Rearrange the devices. In many cases, it is recommended that the cell phone be switched off for a short time and then switched back on.

Check the system requirements of the PC or notebook.

Check whether the USB IrDA stick has been successfully installed.

Check the distance and position between the IrDA interfaces.

In case of trying to transmit the recorded data via PC or notebook with Internet connection to the **365/24 Service Center**, check whether the small supporting program **clueSync** from manufacturer at www.cluemedical.com has been installed and opened properly.

Please contact the manufactures Service Line at +43 (0)1-7007-32550.

Go to "Settings" under your PC's or notebook's "System Control" and make sure that the "Desktop" is set as standard for received data under "Wireless connections".

The date and time for clue BASIC is updated using a small supporting program (clueTime) you'll find under www.cluemedical.com. Please follow the instructions on the home page. clue receives the update automatically everytime when transmitting data by cell phone or PC/laptop.

14. Important Information

Recommendation for safe use of the product

NOTICE!

1. The device, including the accompanying parts, should be checked for sound condition at regular intervals. This is done by visually checking the corresponding parts.

2. **clue** and **clue BASIC** cannot be used

- in the presence of strong electromagnetic fields (antennas, high voltage transformers, generators, magnetic resonance imaging machines),
- in combination with an external pacemaker.

Interactions

3. **clue** and **clue BASIC** in no way interfere with internal pacemakers, ICDs or other electrical stimulators.

Power supply

4. **clue** and **clue BASIC** are battery operated devices. The commercially available AAA battery included with the device can be changed out and may only be disposed of in the hazardous waste provided for this purpose. Batteries do not belong in household waste. As a consumer, you are legally obligated to return used batteries. You can take your old batteries to public collection sites or take them anywhere where batteries of the type in question are sold.

5. The battery should be removed from the device if it is not used for a longer period of time.

6. **clue** and **clue BASIC** work in a temperature range from 10° C to 45° C. For safe operation, it must be free of water condensation.

Any large change in the surrounding temperature is therefore to be avoided. The device must be protected from mechanical stress such as blows, impacts and scratches!

15. Symbols and its Meaning

NOTICE!

This sign indicates important information for use

CAUTION!

The product may be damaged if not observed.



Attention! See the accompanying documents.



Manufacturing date



Manufacturer

SN

Serial number



WEEE (Waste Electrical and Electronic Equipment) symbol according to GUIDELINE 2002/96/EC

This symbol on the product or its packaging means that this product must not be treated as normal household waste, but instead must be taken to a collection site for the recycling of electrical and electronic devices. You can receive additional information from your municipality, the municipal waste disposal agency or the shop at which you purchased the product.



Lead free in accordance with GUIDELINE 2002/95/EC.

No lead has been added to this product in any way or manner.



This device contains components, which are used to produce non-ionizing radiation



Device includes a Bluetooth module

16. Guarantee

Manufacturer provides a warranty to the purchaser for all systems, excluding sensors, cables and batteries, for two years from the delivery date. Manufacturer is obligated to repair systems that are found to be deficient according to this guarantee, free of charge, or to exchange them for a new device, as long as he is notified of this deficiency by the retailer where the device has been purchased or the purchaser directly within the valid warranty period, with provision of the serial number and the respective purchase slip. This guarantee is the only and exclusive legal aid for the purchaser for delivered devices or accessories that prove to be defective in any way.

All repaired or exchanged devices are delivered by the manufacturer to the customer free of charge. Costs for the shipping of claims to the manufacturer are excluded from the guarantee.

These systems are sensitive devices and may only be repaired by experienced and specially trained personnel.

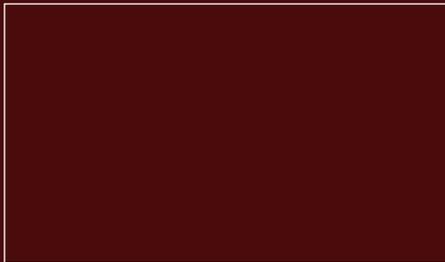
The guarantee is void if

- the device has been opened,
- maintenance work has been done by personnel other than manufacturers personnel,
- improper changes or
- some type of misuse or unintended use of the device is present.

All work not included in the guarantee is carried out at manufacturers prices and rates in effect at the time the device is returned to manufacturer.

Guarantee Exclusion

THE EXPLANATIONS OF THE GUARANTEE ESTABLISHED IN THIS HANDBOOK ARE EXCLUSIVE. NO OTHER GUARANTEES OF ANY TYPE ARE APPLICABLE, REGARDLESS OF WHETHER THEY ARE LEGAL, WRITTEN, ORAL OR TACIT, INCLUDING THE GUARANTEE OF SUITABILITY FOR A PARTICULAR PURPOSE OR MARKETABILITY.



Activation Code for your Device

Consulting, Reordering

clue medical GmbH

Office Park I / Top 4

A-1300 Vienna-Airport

www.cluemedical.com

Phone: +43 (0)1-7007-32550

Fax: +43 (0)1-7007-32559

e-mail: office@cluemedical.com