

Non-contact Infrared Thermometer

JXB-190

NOTE:
You must read this instruction manual completely before use and follow all instructions. Keep the instructions for later use. You must check the device functions according to this instruction manual prior to each use and only use this device if it is in proper working condition.

CONTENTS

I. INTENDED USE	1
II. WARNINGS AND PRECAUTIONS	1
III. PRODUCT DESCRIPTION	1
IV. HOW TO USE YOUR NON-CONTACT INFRARED THERMOMETER	2
V. TURNING ON AND SETTING THE THERMOMETER	2
VI. TECHNICAL SPECIFICATIONS	3
VII. BATTERIES	3
VIII. INCLUDED IN DELIVERY	4
IX. CLEANING AND MAINTENANCE	4
X. GUIDEIINES	4
XI. CLASSIFICATION	4
XII. TROUBLESHOOTING	4
XIII. SIGNS AND SYMBOLS	5
XIV. EMC DECLARATION	5
XV. WARRANTY/SERVICE.....	7

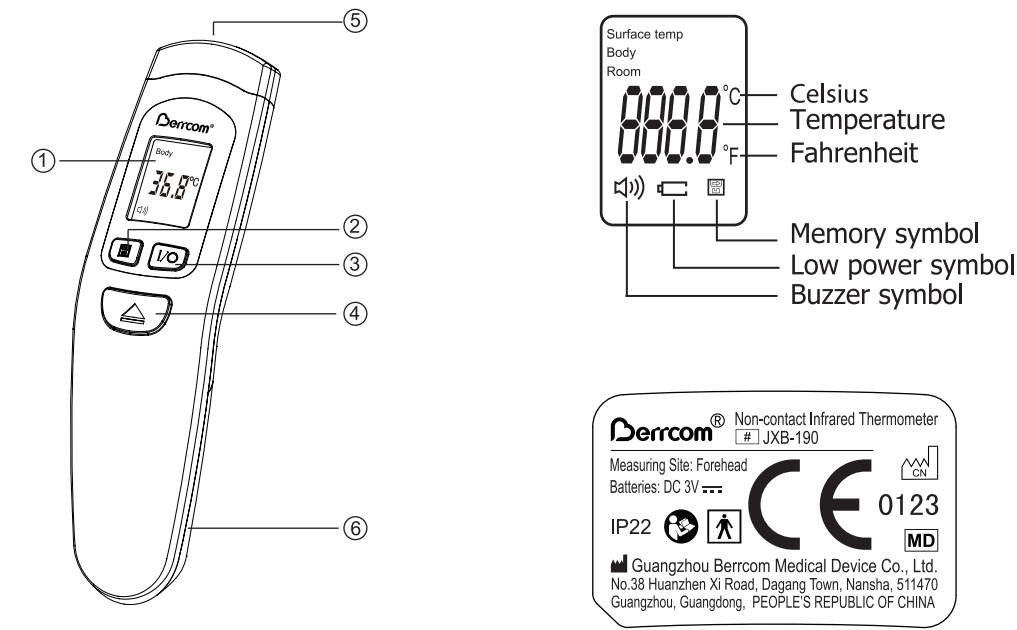
I. INTENDED USE

The device is an infrared thermometer intended to measure forehead temperature of infants and adults without contacting human body. It can be used by consumers in household environment and doctor in clinic as reference.

II. ⚠️ WARNINGS AND PRECAUTIONS

- Only use this thermometer once you have read and understood the instructiofor use.
- Only use this thermometer for the specific purpose described in the instruction manual. Any misuse will void the warranty.
- This thermometer may be used for professional purposes or for personal home use.
- Using this thermometer is not a substitute for consulting a doctor and seeking medical assistance as needed. Do not self-diagnose or self-medicate on the basis of a self-measurement without consulting your doctor and obtaining your doctor's approval. Specially, do not take any new medication or change the type and/or dosage of any existing medication without consulting your doctor and obtaining your doctor's approval.
- Children must not be allowed to use this thermometer. Medical device is not toy.
- If this thermometer is stored in a location that is cooler or warmer than where it is being used, let it sit in the patient's room for at least 30 minutes before taking the measurement.
- After physical activity, a bath or spending time outdoors, wait approx. 30 minutes before you take a measurement on your forehead.
- To ensure an accurate measurement, this device must only be used indoors when the ambient temperature range is between 10°C (50°F) and 40°C (104°F).
- This thermometer must be kept in a clean, dry area.
- Do not expose this thermometer to electric shocks.
- Do not expose this thermometer to extreme temperature conditions of greater than 55°C (131°F) or less than -20°C (-4°F).
- Do not use this thermometer in relative humidity higher than 85%.
- Do not expose the thermometer to direct sunlight, extremely high or low temperatures, dirt or dust.
- Do not drop this thermometer.
- DO NOT TOUCH THE GLASS OF THE INFRARED SENSOR WITH YOUR FINGERS AS IT IS EXTREMELY FRAGILE AND COULD CAUSE INJURY.
- For cleaning, follow the instructions in section IX Cleaning and maintenance.
- Do not use this thermometer if it is damaged.
- Do not open up this thermometer. It contains small parts which might be swallowed by children.
- Do not expose the thermometer to water or other liquid, as it is not water resistant or waterproof.
- If an error occurs or if the device is damaged, DO NOT attempt to repair this device yourself, as this will void the warranty. Contact your dealer and only have repairs carried out by authorized service partners.
- Remove the batteries if you do not wish to use the unit for an extended period of time. Otherwise there is a danger that the batteries may leak.
- Keep the thermometer away from electromagnetic fields produced by objects such as microwave ovens, arc welders or induction heaters.
- A control measurement using a conventional thermometer is recommended in the following cases:
 1. If the reading is surprisingly low.
 2. For new-born infants up to 100 days old.
 3. For children under three years of age who have a weakened immune system or who react unusually in the presence or absence of fever.
 4. If you are using the thermometer for the first time or want to familiarise yourself with it.

III. PRODUCT DESCRIPTION



- | | |
|-----------------|---------------------------|
| ① LCD display | ④ Scan button |
| ② MEM button | ⑤ Infrared sensor |
| ③ ON/OFF button | ⑥ Battery compartment lid |

Buttons	Functions
MODE	Set the measurement mode.
	Turn on or off the beep.
MEM	Display of the saved measurements.
On/Scan	Switch on the device. Measure temperature.

IV. HOW TO USE YOUR NON-CONTACT INFRARED THERMOMETER

- 1.Install 2 AAA batteries according to instructions provided in Section VII.
- 2.For the first time use after installing batteries, wait 10-15 minutes for the device to warm up and adjust to the room temperature.
- 3.Press “ $\frac{1}{6}$ ” button to turn on the unit,aim towards the desired location, keeping the unit at a distance of 3–5cm (1.2–2in) from forehead, when press “▲” Button. After measuring done, the temperature will shows on the screen or the beep announced. Measuring time is 1 second.
- 4.Before taking an individual's temperature, make sure any hair, dirt or dust is removed from forehead and forehead is dry. Wait 10 minutes after such removal prior to measuring temperature.

- ⚠️ For reliable results:
- Do NOT attempt to take an individual's temperature by aiming the device at a body part other than the forehead (i.e. arms, legs, torso, etc.).
 - Do NOT move the thermometer before the final result is displayed.
 - Do NOT take an individual's temperature near any drafts (i.e. wind, air conditioner, fans).
 - Do NOT take an individual's temperature shortly after he or she participated in vigorous physical activity, bathed, took medicine, ate or drink, or had a cold or warm compress on his or her forehead.
 - Do NOT take an individual's temperature when there has been a significant change in ambient conditions. Allow the device to adjust to a significant change in the ambient temperature due to a change in environment for 30 minutes before using the device.
 - Wait at least 3 to 5 seconds between measurements.
 - We recommend that you take three measurements on the forehead, and if the results of three measurements are different, use the one with the highest value.”

V. TURNING ON AND SETTING THE THERMOMETER

- 1.Switch on the device**
Press the “ $\frac{1}{6}$ ” button, the screen panel in full display, it will enter the standby model with the sign “---°C” or “---°F”. When then press the “▲” button will get the measuring result in 1 second. But if there is no key to press, it will turn off in 30 seconds automatically.
- 2.Choosing the temperature unit**
In the switch off state, press the “ $\frac{1}{6}$ ” button for two seconds and the screen will display: “°C” or “°F”, Select “ ” button for Celsius and Select “▲” button for Fahrenheit, Confirm by press “ $\frac{1}{6}$ ” button. And press “ $\frac{1}{6}$ ” button three times to exit the Settings.
- 3.Buzzer ON/OFF**
In the switch off state, press the “ $\frac{1}{6}$ ” button for two seconds and the screen will display: “°C” or “°F”, Press “ $\frac{1}{6}$ ” button one time to get BUZZER ON/OFF. Select “▲” button the sound will open and display “ON” and “ ”, Select “ ” button the sound will close and display “OFF”, Confirm by press “ $\frac{1}{6}$ ” button. And press “ $\frac{1}{6}$ ” button two times to exit the Settings.
- 4.Mode choice**
The JXB-190 is specially designed to take the body temperature of a human being. For this use the Body mode. Measurement range for body mode: 32.0°C to 43.0°C (89.6°F – 109.4°F). You can use the JXB-190 to measure the temperature of an area or an object, a food, a liquid. For this, use the Surface temp mode. Measurement range for Surface temp mode: 0°C – 60°C (32°F – 140°F). In the switch off state, press the “ $\frac{1}{6}$ ” button for two seconds and the screen will display: “°C” or “°F”, Press “ $\frac{1}{6}$ ” button two times to get MODE CHOICE. Select “▲” button to choose “Surface temp” an select “ ” button to choose “Body”, Confirm by press “ $\frac{1}{6}$ ” button. And press “ $\frac{1}{6}$ ” button one time to exit the settings.

- ※Note: The JXB-190 is default setting as body mode.
- ※Important: The surface temperature differs from the internal body temperature. To obtain the internal temperature always use the BODY mode. Please make sure to select the BODY mode for an internal temperature reading and the SURFACE TEMP mode for an external area reading.
- 5.Instructions for recalibration set (To adjust variation of JXB-190)**
When to use it?
When there is the difference between JXB-190 and mercury thermometer, and you believe mercury thermometer from its temperature but it is not convenient to use. You can use recalibration function to adjust the JXB-190 to make it the same test result with mercury thermometer after recalibration. Besides, when you use JXB-190 for the people with different skin color (For example: the yellow race, the white race, black people and so on) you can use recalibration too.

How to use it?

In the switch off state, press the “ $\frac{1}{6}$ ” button for two seconds and the screen will display “°C” or “°F”, Press “ $\frac{1}{6}$ ” button three times to get recalibration set. Select “▲” button to add per 0.1°C or °F and select “ ” button to minus per 0.1°C or °F. Confirm by press “ $\frac{1}{6}$ ” button and exit the Settings.
※Note: If the Unit is Fahrenheit, the adjustment range is from 5.4°F to -5.4°F. If the Unit is Celsius, the adjustment range is from 3°C to -3°C.

6.Data memory

In the switch on state, press “ ” button, which will display the last temperature, and allows for a view of the last 32 measurements taken.

7.Delete the memory

In the switch on state, press “ ” button for 5 seconds, will delete all memory data. Then press “ ” button again will display “CLr”.

VI. TECHNICAL SPECIFICATIONS

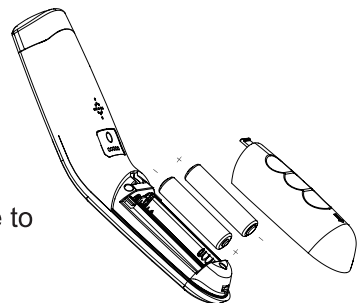
- 1.Normal using condition
Ambient temperature: 10°C – 40°C (50°F – 104°F)
Relative humidity: less than 85%
Pressure altitude: 700 hPa to 1060 hPa
- 2.Storage and shipping condition
Ambient temperature: -20°C – 55°C (-4°F – 131°F)
Relative humidity: less than 95%
Pressure altitude: 700 hPa to 1060 hPa
- 3.Batteries: DC 3V (2 pcs AAA batteries)
- 4.Unit size: approx. 170x48x40mm (L x W x H)
- 5.Unit weight (without battery): approx. 75g
- 6.Temperature display resolution: 0.1°C (0.1°F)
- 7.Measuring range:
In body mode: 32.0°C – 43.0°C (89.6°F – 109.4°F)
Under body mode, there is three color backlights:
Green color backlit: less than 37.3°C (99.1°F), means normal temperature.
Orange color backlit: 37.4°C - 37.9°C (99.3°F - 100.2°F), means may be low fever.
Red color backlit: more than 38°C (100.4°F), means may be high fever.
In surface temp mode: 0°C – 60°C (32°F – 140°F)
In room mode: 0°C – 40°C (32°F – 104°F)
- 8.Accuracy:
32.0°C – 34.9°C (89.6°F – 94.8°F) ±0.3°C(±0.6°F)
35.0°C – 42.0°C (95°F – 107.6°F) ±0.2°C(±0.4°F)
42.1°C – 43.0°C (107.8°F – 109.4°F) ±0.3°C(±0.6°F)
- 9.Consumption: less than 300mW
- 10.Measuring distance: 3cm – 5cm (1.2in – 2in)
- 11Automatic power-off: less than 30 secs
- 12.Memory capacity: 32 readings
- 13.Measuring site: Forehead
- 14.Reference body site: Axillary
- 15.Mode of operation: Adjusted mode
- 16.Expiration date: The JXB-190 may last, but is not guaranteed, for up to 5 years from the date of the manufacturing

⚠️ **Note:** In the BODY mode, the JXB-190 can take temperature readings below 32°C or above 43.0°C (below 89.6°F or above 109.4°F), however, the temperature reading may be unreliable.

VII. BATTERIES

1. CHAGING THE BATTERIES

When the battery symbol “ ” flashes on the LCD display screen, the batteries need to be changed. To change the batteries, open the lid on the back of the device and ensure the batteries are positioned in the correct manner. Improperly installing the batteries could cause damage to the device. Do NOT use rechargeable batteries. Only use single-use batteries.



2. DISPOSING OF BATTERIES

To protect environment, dispose of empty batteries at appropriate collection sites according to national or local regulations.

⚠️ Notes on halding batteries

- If your skin or eyes come into contact with battery fluid, rinse the affected area with water and seek medical assistance.

⚠️ **Chocking hazard!** Small children may swallow and choke on batteries. Store batteries out of the reach of small children.

- If a battery has leaked, put on protective gloves and clean the battery compartment with a dry cloth.
- Protect batteries form excessive heat.

⚠️ **Risk of explosion!** Do not throw batteries into a fire.

- Use idetical or equivalent battery types only.
- Always replace all batteries at the same time.
- Do not use rechargeable batteries.
- Do not disassemble, split or crush the batteries.

VIII. INCLUDED IN DELIVERY

Non-Contact Infrared Thermometer 1 pc
User Manual 1 pc

IX. CLEANING AND MAINTENANCE

- Do not touch the glass of the infrared sensor with your fingers as it is extremely fragile and could cause injury. Protect it from dirt and damage. Clean the glass with a cotton ball that is lightly moistened with 95% Isopropyl Alcohol.
- Cleaning needs to be done regularly as needed.
- To clean the entire device, use a soft cloth slightly dampened with mild soapy water or 70% isopropyl alcohol. Under no circumstances may liquid enter the thermometer.
- Do not use the thermometer again until it is completely dry and keep it stand still at least 30 minutes.
- Never use aggressive cleaning agents, thinners, benzine or tough brushes.

X. GUIDEIINES

This device complies with the EU Directive 93/42/EEC concerning medical products, the ISO 80601-2-56 and the European Standard EN60601-1-2 and is subject to particular precautions with regard to electromagnetic compatibility.

XI. CLASSIFICATION

1. Internally powered equipment;
2. Type Bf applied part;
3. IP22;
4. Sterilization or disinfection: N/A;
5. Category AP / APG equipment: N/A;
6. Continuous operation;

XII. TROUBLESHOOTING

If you have problems while using your thermometer, please refer to this guide to help resolve the problem. If the problem persists, please contact our customer service.

THE SCREEN DISPLAYS TEMPERATURE HIGHER THAN 43.0°C (109.4°F):
The temperature is in Fahrenheit. Change the measurement to Celsius.

THE SCREEN DISPLAYS TEMPERATURE LOWER THAN 32.0°C (89.6°F):
To take the surface temperature, press the “MODE” button and set to the reading called “Body” , If the device is in Surface Temp Mode, the 89.6°F (32.0°C) temperature displayed is showing the external temperature of your body, rather than the internal.

THE SCREEN DISPLAYS THE MESSAGE HI

When using the JXB-190 Thermometer, the message “HI” can show on the screen. In this case,the temperature is above the measurement range selected, either above 43.0°C (109.4°F) in Body Mode.



THE SCREEN DISPLAYS THE MESSAGE LO

When using the JXB-190 Thermometer, the message “LO” can show on the screen. In this case, the temperature analyzed is under the measuring range selected, either less than 32.0°C (89.6°F) in Body Mode.



This message displays for various reasons. Please find below a list of the main issues:

Reasons for LO message display	Advice
Temperature reading hampered by hair or perspiration.	Make sure there is no obstruction or dampness prior to taking temperature.
Temperature hampered by an air draft or dramatic change in ambient temperature.	Make sure there is no air blowing in the area of use; this could affect the infrared reading.
Temperature readings are too close together, and the thermometer did not have time to reboot.	Wait a minimum of 3 to 5 seconds between readings; a 15 second pause is recommended
The measuring distance is too far.	Hold the device 1.5-2 inches (3-5 cm) away from forehead.

XIII. SIGNS AND SYMBOLS

Symbol	Description of symbol
	Trade mark
	Application part, Type BF
	Direct current
IP22	Protected against access to hazardous parts with a finger and against vertically falling water drops when enclosure tilted up to 15°
	Refer to instruction manual / booklet
	DISPOSAL: Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.
	Manufacturer
	Serial number
	The CE labelling certifies that the product complies with the essential requirements of Directive 93/42/EEC on medical device.
	Authorized representative in the European Community/European Union
	Date of manufacture
	Model number
	Medical device
	Country of manufacture

XIV. EMC DECLARATION

The ME EQUIPMENT or ME SYSTEM is suitable for home healthcare and clinic environments.
Warning: Don't near active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances is high.
Warning: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.
Warning: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation."
Warning: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the equipment JXB-190, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

1. All necessary instructions for maintaining BASIC SAFETY and ESSENTIAL PERFORMANCE with regard to electromagnetic disturbances for the excepted service life.
Portable and mobile RF communication equipment may affect the performance of the JXB-190, avoiding strong electromagnetic interference when used, such as near mobile phones, microwave ovens, etc.
2. Guidance and manufacturer's declaration -electromagnetic emissions and Immunity

Guidance and manufacturer's declaration -electromagnetic emissions and Immunity	
Table 1	
Guidance and manufacturer's declaration - electromagnetic emissions	
Emissions test	Compliance
RF emissions CISPR 11	Group 1
RF emissions CISPR 11	Class B
Harmonic emissions IEC 61000-3-2	Not application
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not application

Table 2

Guidance and manufacturer's declaration - electromagnetic Immunity		
Immunity Test	IEC 60601-1-2 Test level	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air
Electrical fast transient/burst IEC 61000-4-4	Not application	Not application
Surge IEC 61000-4-5	Not application	Not application
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	Not application	Not application
Power frequency magnetic field IEC 61000-4-8	30 A/m 50Hz/60Hz	30 A/m 50Hz/60Hz
Conducted RF IEC61000-4-6	Not application	Not application
Radiated RF IEC61000-4-3	10 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz	10 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz
NOTE UT is the a.c. mians voltage prior to application of the test level.		

Table 3

Guidance and manufacturer's declaration - electromagnetic Immunity							
Radiated RF IEC61000-4-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment)	Test Frequency (MHz)	Band (MHz)	Service	Modulation	Modulation	Distance (m)	IMMUNITY TEST LEVEL (V/m)
	385	380–390	TETRA 400	Pulse modulation 18 Hz	1.8	0.3	27
	450	430–470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	2	0.3	28
	710	704–787	LTE Band 13,17	Pulse modulation 217 Hz	0.2	0.3	9
	745						
	780						
	810	800–960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	2	0.3	28
	870						
	930						
	1720	1700–1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation 217 Hz	2	0.3	28
	1845						
	1970						
	2450	2400–2570	Bluetooth; WLAN; 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0.3	28
	5240	5100–5800	WLAN 802.11 a/n	Pulse modulation 217 Hz	0.2	0.3	9
	5500						
	5785						

XV. WARRANTY/SERVICE
In accordance with our policy of continued product improvement and subject to the regulations and rules, we reserve the right to make technical and optical adjustments without notice.
Warranty and repair terms
Please contact your dealer or the service centre in case of a claim under the warranty. If you have to return the thermometer, please enclose a copy of your receipt and state what the defect is.
The following warranty terms apply:
1. The warranty period for your product is 18 months from date of purchase.
In case of a warranty claim, the date of purchase has to be proven by means of the sales receipt or invoice.
2. Defects in material or workmanship will be removed free of charge within the warranty period.
3. Repairs under warranty do not extend the warranty period either for the thermometer or for the replacement parts.
4. The following is excluded under the warranty:
a. All damage which has arisen due to improper treatment, e.g. nonobservance of the user instructions.
b. All damage which is due to repairs or tampering by the customer or unauthorised third parties.
c. Damage which has arisen during transport from the manufacturer to the consumer or during transport to the service centre.
d. Accessories which are subject to normal wear and tear.
5. Liability for direct or indirect consequential losses caused by the thermometer are excluded even if the damage to the thermometer is accepted as a warranty claim.

• GUANGZHOU BERRCOM MEDICAL DEVICE CO., LTD. EXPRESSLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
• UNDER NO CIRCUMSTANCES SHALL BERRCOM HAVE ANY OBLIGATION OR LIABILITY FOR ANY LOSS OF PROFIT OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE, OR CONTINGENT DAMAGES WHATSOEVER WITH RESPECT TO CLAIMS MADE BY ANY CUSTOMER, CONSUMER OR OTHER USER OF BERRCOM PRODUCTS.
• IN THE EVENT THAT ANY APPLICABLE LAWS IMPOSE WARRANTIES, CONDITIONS, OR OBLIGATIONS THAT CANNOT BE EXCLUDED OR MODIFIED, THIS PARAGRAPH SHALL APPLY TO THE GREATEST EXTENT ALLOWED BY SUCH LAWS.

Guangzhou Berrcom Medical Device Co., Ltd.
Address: No.38 Huanzhen Xi Road, Dagang Town, Nansha, 511470 Guangzhou, Guangdong, PEOPLE'S REPUBLIC OF CHINA
Tel: +86(20)34938449
Email: service@berrcom.com

Shanghai International Holding Corp. GmbH (Europe)
Address: Eiffestrasse 80, 20537 Hamburg, Germany

