Dynamic Gait&Posture Analysis System

（Right Gait&Posture4.0）

User Manual

GuangDong Xingzheng Technology Co., Ltd.

Registrant Information

Name: Guangdong Xingzheng Technology Co., Ltd.

Address: Room 303, Building 1, No. 20 Headquarters Third Road, Songshan Lake Park, Dongguan City, Guangdong Province

Contact: 0086769-21668789

Manufacturer Information

Name: Guangdong Xingzheng Technology Co., Ltd.

Address: Room 303, Building 1, No. 20 Headquarters Third Road, Songshan Lake Park, Dongguan City, Guangdong Province

Contact: 0086769-21668789

Caution!

Before the initial use, it is essential to read and understand all the information in the user manual. Familiarizing yourself with the information and instructions contained in this manual ensures the effective and optimal use of the operating system, preventing harm to personnel and equipment. A thorough understanding of the information in this manual will also enable you to respond quickly and effectively in case of malfunctions and operational failures.

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I. Preface

Guangdong Xingzheng Technology Co., Ltd. is a high-tech company specializing in the medical rehabilitation field. From its inception, the company has focused on clinical needs, dedicated to providing doctors and rehabilitation therapists with the most clinically relevant, simple, and user-friendly solutions for assessing and addressing movement disorders and posture abnormalities.

Mission: Popularize simple and efficient rehabilitation technology.

Vision: Right Gait&Posture, Make rehabilitation easier.

II. Product Overview

1. Introduction

The Dynamic Gait & Posture Analysis System consists of gait assessment devices for adults and children, gait training devices, foot pressure assessment devices, and the software (Right Gait & Posture). The software (Right Gait & Posture) is composed of a mobile terminal software and a PC terminal software.

The gait assessment device employs high-precision, low-power consuming sensors to collect three-dimensional micro-posture data of the feet. Applying biomechanical principles and big data, it generates data analysis models. Through sensor calibration, noise reduction techniques, filtering, and proprietary algorithms, it calculates and displays gait parameters such as distance, angles, time, and force during the walking process. The device monitors and analyzes the gait characteristics of patients during walking or running. Simultaneously, it utilizes machine vision to automatically identify key anatomical landmarks of the human body, intelligently assess abnormal body postures like forward leaning or uneven shoulders, providing quantitative analysis.

The gait training device utilizes high-precision, low-power consuming general sensors commonly used in gait assessment. These sensors are fastened to the legs or trunk using straps. During gait training, the device provides real-time displays of the flexion/extension angles of the thigh/knee joints, as well as the forward flexion/backward extension/lateral flexion angles of the trunk. The training software automatically matches the gait frequency, based on sensor data, to background music with the same beats per minute (BPM). It controls the background music by monitoring whether the sensor's displacement acceleration is zero.

The foot pressure assessment device utilizes resistive pressure sensors to collect data on the pressure exerted by patients while standing or walking. When pressure is applied, the resistive pressure sensors undergo a change in resistance, causing a corresponding change in output pressure. This variation reflects the changes in pressure values, enabling the assessment of the

patient's balance, arch type, and pronation/supination of the foot based on the foot pressure data.

2. Product Model

Right Gait&Posture 4.0

3. Explanation of Product Model Naming

Right Gait&Posture – ***

Serial code Product Number

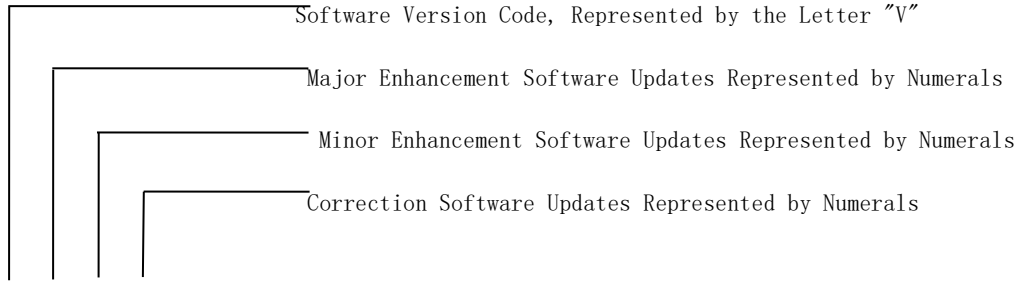
4. Software composition

Software Name:Right Gait & Posture

Model：XZ

Version Released：V1.0

Explanation of Product Model Naming:



V ☐.☐.☐

Version Released：V ☐.☐, Complete version：V ☐.☐.☐。

Operation environment：

Operation Environment for Mobile Terminal

Configuration		Minimum System Requirements
Hardware	Storage(HDD)	128GB
	Memory	6GB
	Network Interface Card	WIFI(100Mbps)

	Interface	Bluetooth 4.0
Software	Operation system	Android (Compatible with version 8.0), iOS (Compatible with version 14), or HarmonyOS (4.0 Compatible Version) systems.
Network requirement	network	4G（2.4GHz Wireless）

Operation Environment for PC Terminal

Configuration		Minimum System Requirements
Hardware	Storage(HDD)	500GB
	Memory	8GB
	Network Interface Card	WIFI（100Mbps）
Software	Operation system	windows10
Network requirement	network	4G（2.4GHz Wireless）

Operation Environment for Server

Configuration		Mitransmission protocol (interface)
Hardware	Storage(HDD)	50GB
	Memory	16GB
Software	Database	Mysql5.7
	Operation system	Compatible version for CentOS 7.9
Network requirement	Transmission protocol (interface)	TCP/IP

	network	上下行 10Mbps

Performance Efficiency:

In the above-mentioned operating environment, the mobile terminal software can successfully upload posture detection/gait detection/running detection data , and the updating time for the host to render posture detection/gait detection/running detection report is less than 5 seconds.

User Restrictions:

User password modification must be a combination of at least 6 digits and letters.

Access Control:

After activating the software, users can enter the login interface. Upon logging in with a registered account and password, they can use the corresponding software functions based on the configured permissions.

Interfaces:

Module	Interface Type
Gait Assessment Device - Pediatric	Bluetooth
Gait Assessment Device - Adult	Bluetooth
Gait Training Device	Bluetooth
Plantar Pressure Assessment Device	USB Interface

III.Product Specification

1. The sensors for the Gait Assessment Device - Adult, Gait Assessment Device - Pediatric, and Gait Training Device are interchangeable, and their performance is consistent.

2. The Bluetooth transmission distance for the sensors is not less than 25m. In case

of a Bluetooth disconnection, data can be temporarily stored in the sensor and automatically synchronized upon reconnection.

3.The sensor samples data at a rate of 100 data points per second.

4.The sensor charging time is ≤1 hour.

5. The sensor's indicator light:

- Solid blue indicates the sensor is connected.
- Blinking blue indicates it is in the process of activating a connection.
- Solid green indicates the battery is fully charged.。

6. The Gait Assessment Device - Adult is equipped with seven specifications of insoles, corresponding to the following shoe sizes:

- 34-35 (EU)
- 36-37 (EU)
- 38-39 (EU)
- 40-41 (EU)
- 42-43 (EU)
- 44-45 (EU)
- 46-47 (EU)

7. The Gait Assessment Device - Pediatric is equipped with nine specifications of insoles, corresponding to the following shoe sizes:

- 20-21 (EU)
- 22-23 (EU)
- 24-25 (EU)
- 26-27 (EU)
- 28-29 (EU)
- 30-31 (EU)
- 32-33 (EU)
- 34-35 (EU)
- 36-37 (EU)

8. The clinical functions of the Gait Assessment Device - Adult and the Gait Assessment Device - Pediatric are consistent:

① It can perform posture detection, measuring angles such as forward head, lateral head tilt, Uneven shoulders angle, rounded shoulder angle, uneven hips angle, leg angle, knee hyperextension angle, Scoliosis, and trunk rotation angle. It can recommend training exercises based on the detection results and formulate exercise prescriptions. It can automatically recommend training plans for different populations with different symptoms, while also supporting manual modification of training plans that can be shared with patients. Users can independently generate training exercise prescriptions and upload them to the system.

② It can conduct gait detection, measuring angles such as the Initial Swing-Inversion angle , Pushing angle, Loading-Inversion Angle, Foot progression angle, Loading angle, Step Height, landing phase, Foot-flat phase, Double Stance phase, pushing phase, swing phase, Stance phase, stride length, walking speed, stability, symmetry, Strike-pitch velocity, Pre Swing-Pitch Velocity, Pronation Velocity, Maximum swing Velocity, Pronation Excursion, swing width, Cadence, and turning angle. It can display the trajectory of the landing position and the pressure center point. It can show the data changes of walking speed, Cadence, stride length, turning angle, and stability of single support during the testing process. It has normal gait standards for individuals aged 1 to 90, automatically adjusting based on the age of the subject. It includes a rehabilitation log function, recording data changes from multiple gait assessments for patients. It can automatically generate assessment conclusions and supports editing.

③ It can conduct running detection, measuring parameters such as running speed, stability, symmetry, loading angle, pushing angle, cadence, stride length, stance phase, Pronation Excursion and Pronation Velocity. It can automatically generate assessment conclusions and supports editing.

9. The Gait Training Device is equipped with nine specifications of straps, corresponding to the following lengths and sides:

- 30cm Right

- 30cm Left
- 50cm Right
- 50cm Left
- 70cm Right
- 70cm Left
- 100cm
- 120cm
- 150cm

10、The Gait Training Device features two training modes:

① Balance Training Mode:

- Users can perform balance training by securing the sensor to the chest or waist using the strap, according to their training needs.

- The system provides prompts for balance training, and when the required posture is achieved, the system generates a sound prompt.

- It can measure angles such as forward bending, backward bending, left lateral bending, and right lateral bending of the trunk.

② Gait Training Mode:

- Users can perform gait training by securing the sensor to the legs using the strap, based on the trainer's requirements.

- The system allows matching rhythmic music with the same beats per minute (bpm) as the patient's gait. When the patient starts training, the music plays, providing auditory stimulation, and the software interface offers visual feedback.

- When the patient stops training, the music stops, and the visual stimulation on the software interface ceases.

- It supports both single-leg training mode and dual-leg training mode.

- It can measure angles such as thigh angle and knee joint angle.

11、The plantar pressure assessment device features a foot pressure plate with a sensor quantity of ≥3600, a density of ≥2.3 sensors per square centimeter (cm^2). It is suitable for testing both children and obese adults.

12、The plantar pressure assessment device has three major detection functions:

① Balance Detection:

- It can measure the left-right amplitude and front-back amplitude of the center of gravity.

- Measures the average position of the center of gravity in the X and Y directions.

- Calculates the angle of deviation of the center of gravity towards the center.

- Determines the COP (Center of Pressure) distance and average velocity.

- It can automatically generate assessment conclusions and supports editing.

② Static Detection:

- Measures the front and back foot areas of the left and right feet.

- Calculates the proportion of the forefoot area to the total foot area, the proportion of the hindfoot area to the total foot area.

- Assesses the proportion of the forefoot or hindfoot area to the total foot area.

- Captures the maximum pressure and average pressure.

- Calculates the total area for both left and right feet.

- Determines the percentage of pressure on the left and right feet compared to the total foot pressure and the arch index.

- Automatically generates assessment conclusions and supports editing.

③ Dynamic Detection:

- Measures COP (Center of Pressure) distance, step deviation angle, area, pressure, average velocity.

- Assesses average support phase during the landing period, average support phase during the flatfoot period, and average support phase during the toe-off period.

- Evaluates the arch index.

13、The software consists of both a mobile terminal and a PC terminal, with restrictions based on the configured functionality.

14、The functionalities of the mobile terminal software are as follows:

① Login/Logout Functionality:

- Provides the ability to log in and log out.

② Report Management:

- Allows users to view, share, and delete posture detection/gait detection/running detection reports.

③ User Management:

- Includes features for adding, deleting, and editing patient information, such as nickname, gender, birthday, height, weight, phone number, and medical conditions.

④ Settings:

- Offers settings functionality, allowing users to modify passwords, switch languages, and access information about the application.

⑤ Gait Training Functionality:

- Includes gait training features, encompassing both balance training and gait training.

- Provides capabilities for gait detection, covering walking detection, posture detection, and running detection.

⑥ Customization for Analysts:

- Allows users to customize analyst avatars and profiles.

15、The functionalities of the PC terminal software, installed on the host, are as follows:

Login Functionality:

- Provides the ability to log in.

Account Management:

- Offers account management features, allowing users to log out and change passwords.

Settings:

- Allows customization of report logos and language selection.

Help Functionality:

- Includes features for activating the software, checking for updates, viewing information about the software, and accessing logs.

Subject Management:

- Allows the creation and deletion of patient profiles.

- Provides the ability to view, delete, share, and modify reports for plantar pressure, posture detection, gait detection, and running posture detection.

- Allows the export of reports.

Pressure Testing:

- Offers five types of pressure testing, including balance testing (Romberg test, single-leg stance test, enhanced Romberg test), static testing, and dynamic testing.

The insole is made of polyurethane (PU), and the strap is made of polyester + latex thread.

17. The parts of this product that come into contact with the human body during normal use include: the insole of the Gait Assessment Device, the straps of the Gait Training Device, and the foot pressure plate of the Plantar Pressure Assessment Device.

IV. Product Structure and Components

This product consists of the Gait Assessment Device - Adult, Gait Assessment Device - Pediatric, Gait Training Device, Plantar Pressure Assessment Device, and software (Right Gait & Posture). The software (Right Gait & Posture) is composed of a mobile terminal and a PC terminal.

V. Basic Performance

Can accurately collect patient information for gait assessment and training.

VI. Applicability

The product is used for gait assessment and training in patients with lower limb walking disorders.

VII. Prerequisites for Operating the System

1. Operator:

The system should be operated by qualified professionals, such as medical experts or physical therapists. These professionals should also have essential prerequisites in terms of physical and cognitive abilities, including good vision, hearing, and reading skills.

2. Operator Training:

Before operating the product as per this manual, operators must undergo training to ensure the safe and effective use of the equipment.

Operators must adhere to the following points:

- Operation instructions and the intended design purpose compared to actual practice
- Configuration of all components
- Instructions for the use of the equipment
- Contraindications for the use of the equipment
- Explanation of warnings during all operational states

For information regarding system installation and training, please contact the after-sales service unit.

After-Sales Service Unit Information:

- Name: Guangdong Xingzheng Technology Co., Ltd.

- Address: Room 303, Building 1, No. 20 Headquarters Third Road, Songshan Lake Park, Dongguan City, Guangdong Province, China

- Contact: 0769-21668789 /support@xingzhengtech.com

VIII. Contraindications

The following diseases or conditions are contraindications for posture detection:

- Individuals who cannot stand naturally for photos should not use the system.

- Excessive obesity or severe malnutrition may result in inaccurate posture test results.

The following diseases or conditions are contraindications for gait detection and running posture detection:

- Caution should be exercised in individuals with cognitive impairments.

The following diseases or conditions are contraindications for the use of the gait training device:

- Caution should be exercised in individuals with severe cognitive impairments.

The following diseases or conditions are contraindications for the use of the plantar pressure assessment device:

- Severe cardiovascular or pulmonary diseases

- Patients with unhealed lower limb fractures

Warning:
Do not modify the equipment without authorization from the manufacturer

Notice: The Dynamic Gait & Posture Analysis System's Gait Assessment Device, Gait Training Device, and Plantar Pressure Assessment Device are suitable for use in a patient's environment.

Notice: Do not place the machine in high-temperature, high-humidity, dusty, direct sunlight, or environments with strong electromagnetic interference, as it may lead to inaccurate measurement results or even damage the product.

IX. Notes, warnings, and informative instructions

1. Gait Assessment Device

① Before use, gently shake the sensor to confirm the blue indicator light is flashing, indicating it is in the normal ready-to-connect state. Once connected to the software, the blue indicator light will remain steady.

② The sensor with a red logo is for the left foot, and the one with a blue logo is for the right foot. It should be correctly installed on the bottom of the test insole, with the sensor's indicator light and logo facing outward; otherwise, the detection results may be inaccurate.

③ During gait assessment, patients should wear flat sports shoes. Leather shoes or high heels may cause signal loss or inaccurate detection results.

④ During the gait testing process, if the sensor moves too far from the mobile terminal, it may result in Bluetooth disconnection. In such cases, no action is required; the data will automatically sync when

the sensor returns to the vicinity of the mobile terminal.

⑤ Must be operated by trained medical personnel.

2.Gait Training Device

① Before use, gently shake the sensor to confirm the blue indicator light is flashing, indicating it is in the normal ready-to-connect state. Once connected to the software, the blue indicator light will remain steady.

② During gait training, place the sensors correctly in the corresponding strap pockets: red for the left and blue for the right, with the indicator lights facing outward. Secure the straps with the smooth side facing inward on the outer clothing. Failure to do so may result in inaccurate data.

③ Secure the straps tightly when fastening; otherwise, it may lead to the detachment of the chip.

④ Must be operated by trained medical personnel.

3.Plantar Pressure Assessment Device

① Must be operated by trained medical personnel.

② Users should properly place the plantar pressure assessment device on a level and hard surface.

③ Do not use the plantar pressure assessment device in environments with potential explosion hazards, such as those containing flammable anesthetics mixed with air, oxygen, or nitrous oxide.

④ Disconnect the power before starting the cleaning and inspection of any components.

⑤ Check that the device has sufficient load-bearing capacity to avoid device damage.

⑥ The use of accessories or cables not authorized by the supplier may increase emissions or reduce the device's immunity to interference.

⑦ Ensure that no liquid can penetrate the top or ports of the device.

⑧ Damages caused by improper operation are not covered within the manufacturer's warranty scope.

⑨ The device can only be connected with accessories approved by the system manufacturer. Unauthorized system modifications are prohibited to prevent safety hazards.

X. Installation Method

1. Gait Assessment Device

① Take the test insole and sensors out of the carrying case. Choose a test insole size that matches the patient's regular insole size. Place the sensors in the grooves on the bottom of the test insole.

② The sensor with a red logo is for the left foot, and the one with a blue logo is for the right foot. When in use, insert the red and blue sensors into the left and right shoe insoles, respectively, aligning the holes on the sensors with the protrusions on the bottom of the insoles. Ensure that the installed sensors' indicator lights and logos face outward.

2. Gait Training Device

① Carefully unpack the gait training device.Securely place the sensors in the designated pockets on the user's body, ensuring the red sensor is on the left and the blue sensor is on the right. The indicator lights on the sensors should face outward.

② Ensure that the straps are smooth-side inwards and fix them securely to the outer clothing.

③ Begin the gait training session, following the provided instructions or software guidance.

④ After the session, disconnect the sensors and store them appropriately for future use.

3.Plantar Pressure Assessment Device

① Take the plantar pressure plate and power cord out of the packaging.

② Connect one end of the power cord to the plantar pressure plate and the other end to the main unit.

③ Connect the main unit to the power source and turn it on. Press the power switch on one side of the plantar pressure plate to energize it.

4.Software

Software for PC terminal

① The software is pre-installed on your PC. Upon startup, the desktop will display the Right Gait Posture icon: 

② Double-click to open the Right Gait & Posture Setup software. A pop-up window for receiving the activation code will appear. Send the QR code to customer service to obtain the activation code. Once you have the corresponding activation code, click 'Next.' Enter the activation code and click 'Activate.' After successful activation, the software can be used normally.

Software for mobile terminal

iSO ：

① Contact customer service to provide an email for receiving the APP installation invitation. Open the email on the mobile device and click on the installation invitation for installation.

② After successful installation, the 'Right Gait&Posture' APP icon will appear on the mobile device desktop.

③ Double-click to open the Right Gait&Posture APP, a pop-up window for receiving the activation code will appear. Send the QR code to customer service to obtain the activation code. Once you have the corresponding activation code, click 'Next.' Enter the activation code and click 'Activate.' After successful activation, the software can be used normally.

④ Log in by entering the username and password provided by the manufacturer.

Andriod：

① Contact customer service to provide an email for receiving the APP installation package. Open the email on the mobile device, download the APK format installation package attachment, and double-click to start the installation.

② After successful installation, the 'Right Gait Posture' APP icon will appear on the mobile device desktop.

③ Double-click to open the Right Gait&Posture APP, a pop-up window for receiving the activation code will appear. Send the QR code to customer service to obtain the activation code. Once you have the corresponding activation code, click 'Next.' Enter the activation code and click 'Activate.' After successful activation, the software can be used normally.

④ Log in by entering the username and password provided by the manufacturer.

XI. User Instructions

1. System Setup

Mobile Terminal:

① Activation: Upon the first opening of the software, the system will automatically display an activation QR code. Send the QR code to customer service to obtain the activation code. Fill in the activation code to complete the activation successfully.

② Login and Logout: After successful activation, the login page will appear. Enter the username provided by the manufacturer and the initial password '123456' to log in. Click on 'Account' and then 'Logout' to log out.

③ Change Password: Go to 'Settings' and choose 'Change Password.'

PC Terminal:

① Activation: Upon the first opening of the software, the system will automatically display an activation QR code. Send the QR code to customer service to obtain the activation code. Fill in the activation code to complete the activation successfully.

② Login and Logout: After successful activation, the login page will appear. Enter the username provided by the manufacturer and the initial password '123456' to log in. Click on 'Account' and then 'Logout' to log out.

③ Change Password: Click on 'Account' and choose 'Change Password.'"

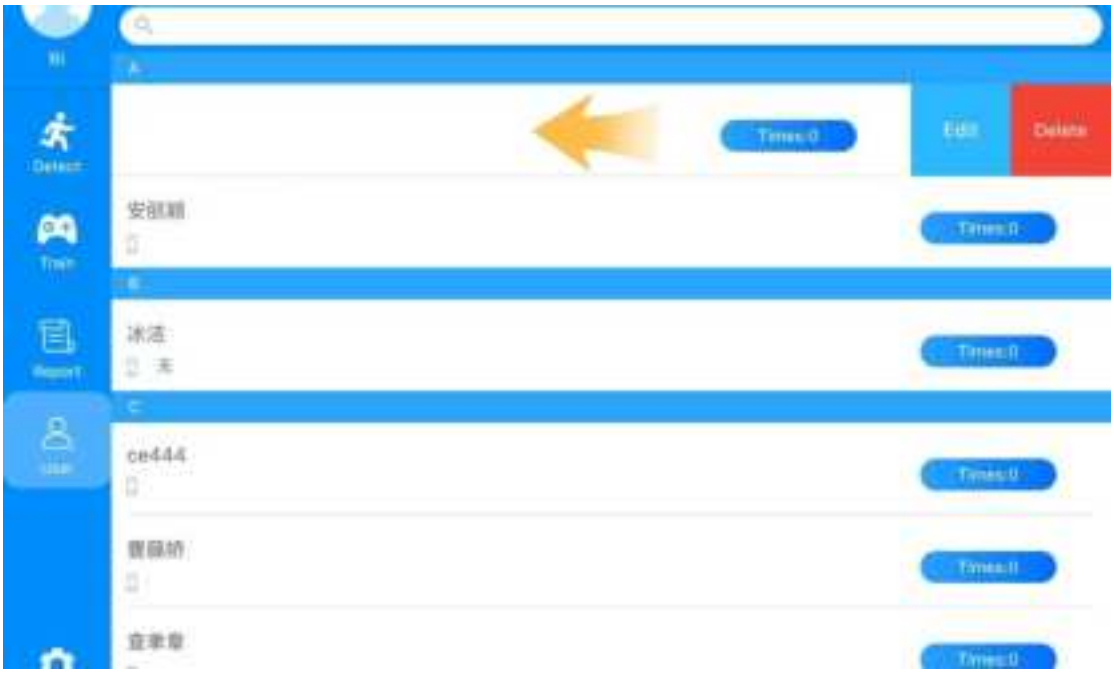
2. Patient Information Management

Mobile Terminal:

① Create User: User - Click the plus icon in the upper right corner of the screen - Enter relevant information - Click Next - Creation successful.

② Search User: User - Enter the username in the upper search box - Press Enter - Click on the user.

③ Edit and Delete: User - Hold and drag the user information bar to the left - Click on Edit or Delete.



PC Terminal：

① Create User: Detection Object - Click on the create icon in the upper right corner of the screen - Enter relevant information - Click Save - Creation successful.

② Search User: Detection Object - Choose the search method (name or phone number) - Enter the name or phone number - Click Search.

③ Edit User Information: Detection Object - Click on the user to enter - Click on the upper right corner for modification - Edit user information.

④ Delete User Information: Detection Object - Find the user and click on the right side to delete.

3. Gait Analysis and Training

① Take out the patient's own insole (if available) and place the insole with installed sensors into the patient's own flat athletic shoes.

② Open the mobile terminal software, click on 'Detect' - 'Gait' - Turn on Bluetooth connection to the chip - Click 'click to enter' -click 'test' - Select Test Object - Choose standard - Select test duration - Click 'next' - Click' start' -After a 3-second countdown, the patient can

start the gait test by walking naturally for 1-2 minutes.

③ Under the guidance of the therapist, the patient selects the test duration based on their condition. After completing the selected gait test duration, the system automatically generates a gait analysis report.

④ The patient removes the test insole and sensors. Place the sensors into the pockets of the gait training strap and wear it on the patient's leg. Open the mobile terminal software, click on 'Train' - Select user - Start training - Choose training mode based on the patient's sensor placement and training area - Select training duration - Click 'connect Device' to connect a pair of sensors-Click 'Click to enter'.

4.Foot Pressure Assessment

Static Foot Pressure Assessment:

① Place the foot pressure plate on a level surface, connect it to the host and after powering it on, open the foot pressure plate.

② The patient removes their shoes and stands naturally and steady on the pressure plate for static foot pressure assessment.

③ Open the PC software - Choose static testing and click strat - Select the user - Click start - After a 30-second countdown, the report is automatically generated.

Dynamic Foot Pressure Assessment:

① Place the foot pressure plate on a level surface, connect it to the host and after powering it on, open the foot pressure plate.

② The patient removes their shoes and walks back and forth on the pressure plate for dynamic foot pressure assessment.

③ Open the PC software - Choose dynamic testing - Select the user - Start the test - After a 30-second countdown, the report is automatically generated.

Balance Assessment:

① Place the foot pressure plate on a level surface, connect the

plate to the host and after powering it on, open the foot pressure plate.

② The patient stands on the pressure plate after removing their shoes for balance assessment.

③ Balance Assessment: Open the PC software - Choose balance and click ‘start’ - Select the user - Start the test - Eyes open for 30 seconds - Eyes closed for 30 seconds - The system automatically provides a balance report.

5. Posture Assessment

① Open the mobile terminal software - Detection - Posture Detection - Select user - Start the test - At this point, a humanoid frame appears on the screen.

② Hold the mobile terminal with the camera facing upward and place the patient's image within the humanoid frame.

③ Take three photos in sequence: front, side, and back. The system will automatically generate a posture assessment report.

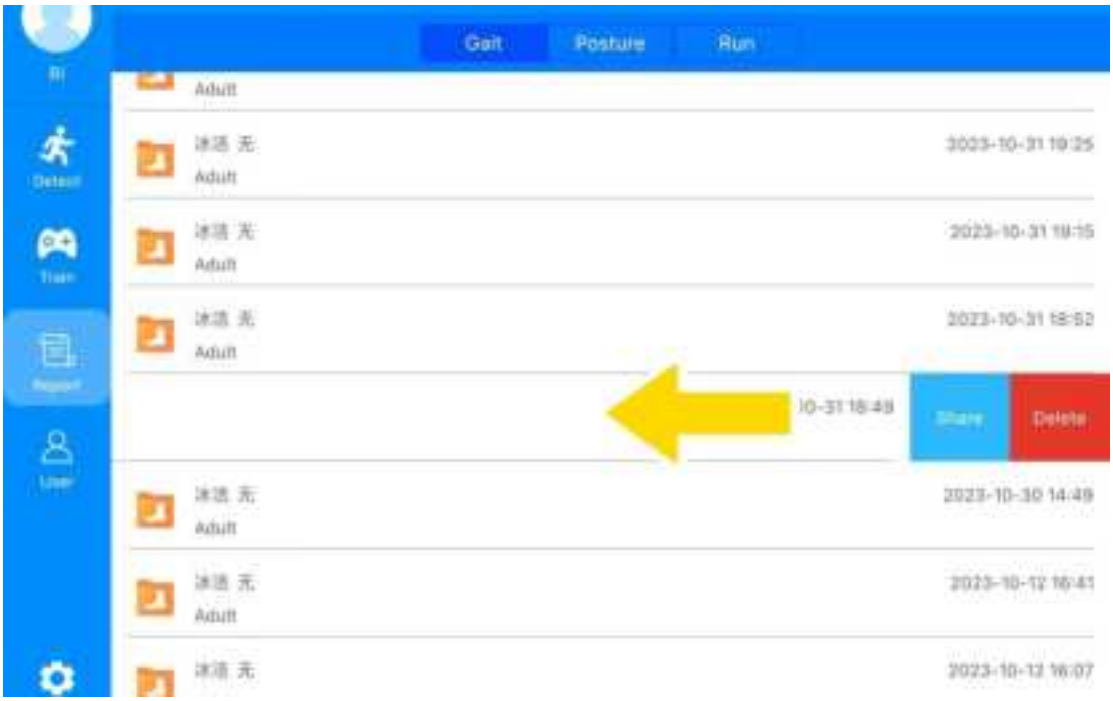
XII. Viewing, Sharing, and Printing Reports

Mobile Terminal:

① Report Viewing: Open the mobile terminal software - Report - Choose report type at the top of the page - Scroll down to select the user from the list - Click to view the report.

② Report Sharing: Report - Select report type - Choose user - Swipe left on the user information bar - Click 'Share' - Copy the link or scan the QR code.

③ Report Deleting:Report - Select report type - Choose user - Swipe left on the user information bar - Click 'delete' - confirm.



PC Terminal:

① Report Viewing: Open the PC software, go to "subject" select the subject, click to enter, choose the report type, and click to view the report.

② Report Sharing: Select the subject, choose the report, click the share button on the right side of the report, and either copy the link or scan the QR code.

③ Report Printing:

Printing Foot Pressure and Balance Report: Simply click the print button at the bottom of the report, save it in PDF format, and print.

Printing Posture Report: Open the posture report, click the print button at the bottom of the report, save it in PDF format, and print.

Printing Gait Report: Open the gait report, click the report download button at the top right, save it in PDF format, and print.

XIII. Closing the Program

Gait Assessment Device: After the patient completes the gait assessment, close the software on the mobile terminal and place the sensors and insoles back into the storage box.

Gait Training Device: After the patient completes the gait training, close the software on the mobile terminal and place the sensors and straps back into the storage box.

Foot Pressure Assessment Device: After the patient completes the foot pressure or balance assessment, close the software on the host, disconnect the USB connection cable, and turn off the host.

XIV. Product Maintenance and Care Methods

1. Gait Assessment Device/Gait Training Device

① Avoid leaving the sensors idle for more than two weeks. Maintain a charging frequency of at least once every two weeks to prevent excessive discharge, which may shorten the sensor's lifespan.

② The sensors contain delicate components; handle them with care to avoid dropping from a height or throwing, preventing sensor damage.

③ Keep the sensors away from high-temperature and humid environments, away from heat sources, and avoid water exposure.

2. Foot Pressure Assessment Device

① Regular maintenance helps identify potential defects early, enhancing equipment safety and lifespan.

② Maintenance can be obtained from the manufacturer or an authorized dealer.

(3) We recommend performing functional and safety checks at least annually. Compliance with national accident prevention regulations and specified testing and inspection times is mandatory.

Note:

Ensure that the foot pressure assessment device is inspected annually by authorized service personnel according to the medical equipment testing protocol. For further safety checks, please contact the manufacturer.

Internal batteries/power sources cannot be replaced independently and must be replaced by authorized personnel from the manufacturer.

XV. Cleaning, Disinfection, and Sterilization Requirements

1. Gait Assessment Device

For hygiene reasons, it is recommended that patients wear socks during gait testing. Before using the test insoles, disinfect them. You can use 75% concentration alcohol wipes to wipe the testing insoles.

2. Gait Training Device

It is advisable for patients to wear long-sleeved pants during gait training. Before using the straps, disinfect them. You can use 75% concentration alcohol wipes to wipe the straps.

3. Foot Pressure Assessment Device

You can use 75% concentration alcohol to wipe the testing area.

Warning:
Power must be disconnected from the system and accessories before starting any cleaning and maintenance work!

Caution:
Liquid penetration into the device must be prevented.

XVI. Usage, Storage, and Transportation Requirements

1. Transportation and Storage Conditions

- Ambient Temperature: -20°C to +55°C

- Relative Humidity: ≤93%

- Atmospheric Pressure: 500hPa to 1060hPa

2. Transportation

- Place padding with shaped foam between the device and the outer packaging box.

During transportation, prevent impact, severe vibration, and exposure to moisture.

3. Storage

- The packaged training equipment should be stored in a room with a temperature between -20°C and +55°C, relative humidity not exceeding 93%, in a well-ventilated

area, and free from corrosive gases.

4. Operating Conditions

- Ambient Temperature: 5°C to 40°C
- Relative Humidity: ≤80%
- Atmospheric Pressure: 700hPa to 1060hPa

XVII. Period of use

Product life: 5 years

Warning:

Insoles and straps are consumables. If needed, please purchase

XIX. Circuit diagram, Bill of materials

Key Components:

Name	Model/Specification	Technical Parameters
Polymer Lithium-ion Battery	LND 301525	100mAh , 3.7V

If needed, please contact the manufacturer. We can provide circuit diagrams, component lists, annotations, calibration details, or any other technical information as required.

XX. Environment Protection

At the end of its normal service life or in cases where the Dynamic Gait & Posture Analysis System needs to be scrapped due to improper clinical use, if not handled properly, it may pose environmental hazards. Proper disposal should be carried out in accordance with local government regulations and environmental protection laws.

XXI. Basic Troubleshooting

Symptom	Cause Analysis	Troubleshooting Steps
The gait assessment device is unable to connect to the software.	The sensors are too far away from the mobile terminal software.	The sensor is maintaining a distance of less than 10 meters from the mobile terminal software.
	Sensor battery is low.	Charge the sensor
	Sensor in a stationary state.	Shake or move the sensor.
The foot pressure assessment device cannot connect.	Device connection improper.	Replug the interface to ensure a secure connection.
		Exit the PC-side software and then restart.
		Turn off the power and restart the device by using the power switch. Then, turn it back on.
The foot pressure assessment device has no pressure data.	The device is not properly connected.	Contact the manufacturer's authorized service personnel.

Contact Information: 0769-21668789/ support@xingzhengtech.com
Fax: 0769-21668789
Manufacturer/Registrant/After-sales Service Unit: Guangdong Xingzheng Technology Co., Ltd.
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FCC Warnning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection againstharmful interference in a residential installation. This equipment generates, uses and can radiateradio frequency energy and, if not installed and used in accordance with the instructions, maycause harmful interference to radio communications. However, there is no guarantee thatinterference will not occur in a particular installation. If this equipment does cause harmfulinterference to radio or television reception, which can be determined by turning the equipmentoff and on, the user is encouraged to try to correct the interference by one or more of thefollowing measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1)This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0cm between the radiator and your body.