AndanteFit

Model. ADTFM-MD-STS-V1

User Manual

This user manual contains information about the device's functions, characteristics, safety, and usage. Please read it thoroughly before using the device to ensure safe operation. Keep this manual in the location where the device is used and refer to it regularly to use the device safely and effectively.

Please Check Before Reading This Manual.

Warnings and Cautions Regarding Safety

- Warnings and cautions are provided to ensure the correct use and safe operation of the device.
- To ensure the safety of both users and patients, please pay attention to the following points.
- The manufacturer does not accept responsibility for any issues resulting from failure to follow these safety warnings and cautions.

Warnings

1) **Modifications to this device are not allowed.**
2) This device should only be used for the intended purpose specified by the manufacturer. Using the device for purposes other than those described in the manual may result in the loss of warranty and the right to claim damages.
3) Do not disassemble or modify the device in any way. Electrical shock, fire, or device malfunction may occur. In such cases, warranty coverage may be voided, and service may be denied.
4) To reduce the risk of fire or burns, unauthorized disassembly by users, other than authorized service personnel, is strictly prohibited.
5) This device contains a lithium polymer battery (refer to product specifications). Do not remove the lithium polymer battery arbitrarily.
6) The lithium polymer battery in this device requires regular inspection or replacement. If you need to replace the battery, please contact the customer service center (Tel. 070-4167-2554).
7) **Do not drop or subject the device to impact.** This can cause direct damage to the device and may void the warranty.
8) If you detect any burning smell or damage from the device, immediately discontinue use and contact the customer service center.
9) Do not use the device if the exterior is damaged, as it may cause electric shock or malfunction.
10) Do not use charging adapters with specifications other than those provided by the manufacturer or specified in the manual. Using altered or non-standard adapters may damage the device. This is the user's responsibility, and the manufacturer will not be liable.
11) Do not repair the provided components with insulating tape or other materials.
12) Do not charge the device using damaged cables. Overheating of the charging cable may cause electric shock or fire.
13) When charging the device, it will automatically switch to operational mode. Be careful not to obstruct the charging cable during inspection while the device is charging.
14) Do not use the device on chairs with wheels or other unstable surfaces. There is a risk of patient falls during device use.

15) Do not bring your eyes close to the Distance sensor. Long-term exposure to infrared rays emitted by the sensor may affect vision.
16) **This device has not been tested for water resistance or dust resistance.**
17) Do not operate the device with wet hands, as this may cause electrical shock or device malfunction. Also, use the included charging adapter with dry hands.
18) Do not use the device near water or in humid environments. Moisture may cause electrical shock, fire, or device malfunction.
19) Do not use the device in dusty environments. Excessive dust may cause device malfunction.
20) Do not use the device near heat sources. There is a risk of fire.
21) Do not charge or use the device in a confined space where corrosive or flammable gases are present. If charging in such an environment, avoid touching the charging adapter and ensure adequate ventilation. Sparks from the adapter may cause fire or explosion.
22) If you detect any abnormalities with the device, contact the customer service center immediately to request repair, replacement, or other services.
23) 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.
24) 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 against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following 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.
25) Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
26) This device complies with RF exposure requirement.
27) **Do not modify or delete any relevant information provided with the device.**

⚠ Cautions

1) To use the device safely and correctly, please familiarize yourself with the preventive measures and other relevant information specified **in the safety warnings and cautions section** of this manual before use.

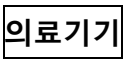
2) Illustrations or screen images used in the manual may differ from the actual device or software.
3) Charge the device only with the charging adapter specified in the manual and provided with the device (refer to product specifications for equivalent standards or higher).
4) When charging with the device's charging cable, ensure that the cable does not unintentionally bend or place the device in a location where it could be subjected to external impacts.
5) Avoid using the device in locations where it is exposed to direct sunlight.
6) Storing the device in locations with temperatures or humidity levels exceeding the specified limits or where it is exposed to direct sunlight may damage the device. Store the device and its components in a dry, shaded area.
7) Place the device only on a chair or surface that is flat and can support sufficient weight. The device may be damaged if subjected to excessive load.
8) Use the device within the recommended operating temperature range (refer to product specifications). Exposure to high temperatures may affect the device and result in inaccurate results.
9) Use the device within the recommended humidity range (refer to product specifications). High humidity can cause internal malfunctions.
10) Wipe the surfaces of the device and charging adapter with a dry cloth that does not shed fibers or a cloth that has been thoroughly wrung out to remove excess moisture.
11) Be cautious when using disinfectants or cleaning agents, as they may erase markings or symbols on the surfaces of the device and charging adapter.
12) Avoid allowing moisture or disinfectants to come into direct contact with the device and charging adapter.
13) When storing or using the device, do not leave heavy objects on the seating surface for extended periods.
14) Avoid applying excessive impact or force to the device body.
15) When not in use, make sure to turn off the device to manage it properly.
16) If storing the device for an extended period, make sure the battery does not remain in a completely discharged state.
17) For optimal performance and reliability, it is recommended to have the device serviced and calibrated annually. Contact the customer service center to arrange this service.
18) Use the handle located on the top of the device for carrying it.
19) Ensure that the device's control software is always updated to the latest version. An outdated version may lead to inaccurate results.
20) If you need to dispose of the device, do so in accordance with the disposal regulations applicable in your local area.
21) This wireless equipment may cause radio interference during operation, and therefore cannot be used for services involving personal safety.
22) Bluetooth technology operates on the same frequency bands as many other electronic devices, which may cause interference between devices.
23) The user is responsible for any issues related to data transmission or unauthorized use resulting from the use of Bluetooth.

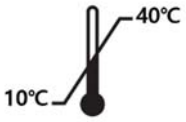
Symbol Description

Safety symbols

	In this manual, this symbol indicates a 'Warning'.
	In this manual, this symbol indicates a 'Caution'.
	Type B Applied Part
	Class II equipment
	"ON-OFF" Push Button
	Refer to the instruction manual
	Refer to the Supplementary Documents.

Other symbols

	Serial number
	Medical device
	Medical device (MFDS)
	Date of manufacture
	manufacturer
	Indicates that the internal battery is charging. The indicator will blink blue while charging and remain steadily illuminated when fully charged.

	Indicates the device's power supply status. The indicator lights up green when power is supplied to the device and blinks when the sensor is activated.
	Direct Current
	Temperature limit (Optimal Operating Temperature)
	Humidity limitation (Optimal Operating Humidity)
	Keep away from rain
	Keep away from sunlight
	Waste from Electrical and Electronic Equipment (WEEE)
	The label displaying the product name, model number, and approval information is located on the bottom of the device.
	The label indicating the electrical specifications, manufacturer, and supplier of the accessory is located on the bottom of the charging adapter.

1. Components

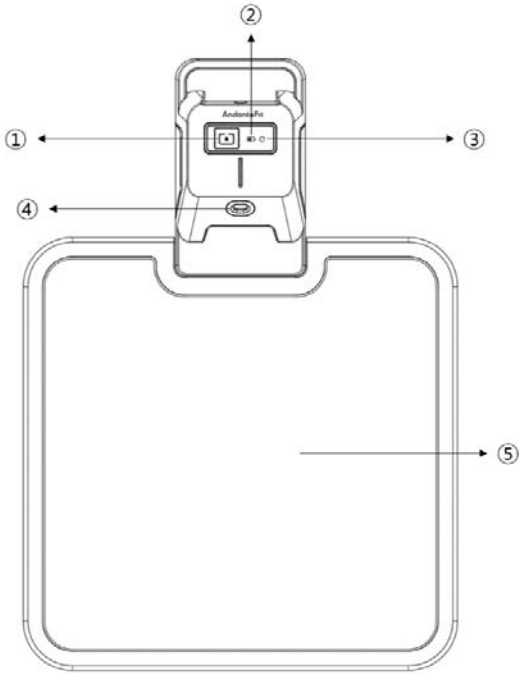
The components included in the product package are as follows:

① Main Unit: 1 unit
② User Manual: 1 copy
③ Charging Adapter: 1 unit
④ Adapter Plug: 1 unit (each)
⑤ Charging Cable: 1 unit

* Optional Purchase - Test Chair (This chair is a non-medical device and is not included in the product package.)

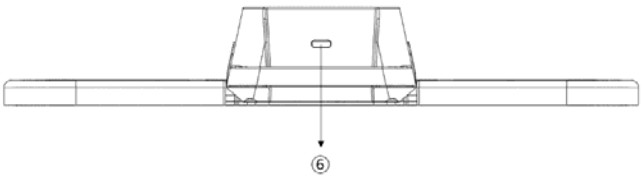
2. Appearance Description

2.1. Front of the Main Unit



1	**Power Button**	Used to change the device's power supply status (on/off).
2	**Charging Status LED (Blue)**	Indicates the charging status. The LED blinks blue while charging and remains steadily illuminated when charging is complete.
3	**Power Status LED (Green)**	Indicates the device's power supply status (on/off). The LED lights up green when power is supplied and blinks green during sensor operation.
4	**Distance Sensor**	Measures the distance from the seating surface (applied part) to the patient's buttocks or back.
5	**Seating Surface (Applied Part)**	The area where the patient sits. Equipped with a load cell to measure the patient's weight while seated.

2.2. Top of the Main Unit



6	**Charging Port**	This is where the charging cable connects to the device.

2.3. Components

⑦ Charging Adapter

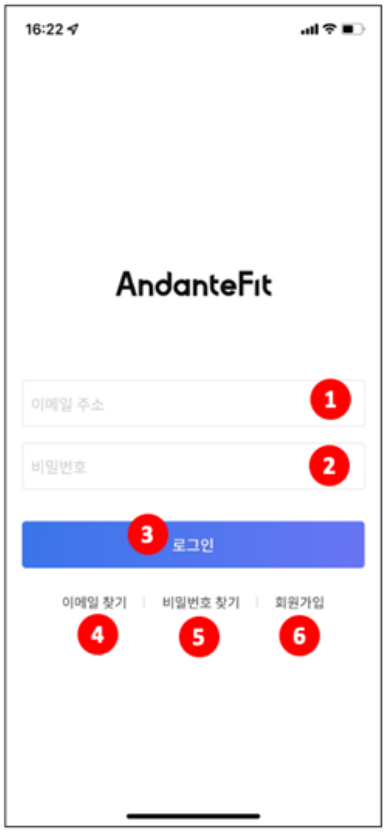
⑧ Adapter Plug (EK, JP)

⑨ Charging Cable

7	**Charging Adapter**	USB-A Adapter (Input: 100-240V, 50/60Hz, 0.4A; Output: 5VDC, 2A)
8	**Adapter Plug (EK, JP)**	Plug for Charging Adapter
9	**Charging Cable**	USB-A to USB-C Charging Cable (3M)

2.4. Mobile Application

1) Login screen



1	**Email Address Input Textbox**	Allows you to enter an ID in the format of a registered email address.
2	**Password Input Textbox**	Allows you to enter the password for your account.
3	**'Login' Button**	Attempts to log in with the entered account information and, upon success, redirects to the home screen.
4	**'Find Email' Button**	Redirects to the email recovery screen if you have forgotten your account information.
5	**'Find Password' Button**	Redirects to the password recovery screen if you have forgotten your password.
6	**'Sign Up' Button**	Redirects to the registration screen for new users who have purchased the device for the first time.

2) Test and Review Screen (Home Screen)

7	**'Test' Button**	Navigates to the screen where you can select the patient for the 'Test'.
8	**'Review' Button**	Navigates to the screen where you can review the test records of patients.
9	**'Settings' Button**	Navigates to the 'Settings' screen related to account information.

3) Patient Selection Screen

10	**'Register New Patient' Button**	Navigates to the screen where you can register information for a new patient.
11	**Registered Patient List**	Displays a list of registered patients, allowing you to select a patient for the test.

4) Test Screen

12	**Test Items Screen**	Displays a list of tests that can be performed via Bluetooth connection with the device, shown as selectable buttons. Choose the appropriate test button for the desired test.
13	**Device Connection Status Screen**	Indicates the test items that require device connection. While scanning for nearby devices, the Test list will appear grayed out and inactive. Once a compatible device is found, the test buttons will become active under the 'Device Connection Complete' section of the test items window.
14	**'Test Settings' Button**	Navigates to the screen where you can configure settings for each test.

5) Results Review Screen

15	**'Test Filter'**	Provides conditions for selectively displaying test records of patients. You can choose these conditions to selectively view the test results for a patient.
16	**Test Results List**	Displays the test records of the selected patient from previous tests.

3. Preparation for Use

3.1. Pre-Use Checks

 **Unpack and Verify Contents:** Unbox the package and verify the contents.

1) The package includes Main Unit, Charging Adapter, Adapter Plug, Charging Cable, User Manual

   Note: If any components are missing, please contact the manufacturer's customer service immediately.

2) Check the Environment: Ensure that the surrounding environment is suitable for use. This device is designed for indoor use.
3) Outdoor Use: If you plan to use the device outdoors, make sure to follow the manufacturer's guidelines and use it in the recommended environmental conditions.

3.2. Pre-Use Preparation (Charging)

 **Before the initial use of the device, it is necessary to charge it for at least 60 minutes.**

 **For safety reasons, place the device in a location where the charging cable can be easily disconnected during charging.**

1) Main unit has an internal battery that can be charged using the included charging adapter and cable.
2) Attach the adapter plug to the charging adapter by aligning the 'PUSH' part of the adapter with the groove in the plug and twisting it slightly clockwise to secure it.
3) Connect the USB-A end of the charging cable to the USB-A port on the charging adapter.
4) Plug the USB-C end of the charging cable into the USB-C port on the main unit's top-head to start charging.
   - During charging, the charging status indicator (blue LED) will flash.

- When charging is complete, the charging status indicator (blue LED) will remain on.
- When no power is supplied, the charging status indicator (blue LED) will remain off.

5) To remove the adapter plug from the charging adapter when not in use, press the 'PUSH' button on the plug connection area and rotate the plug counterclockwise.

3.3. Installing the Device

⚠ **Ensure Sufficient Space:** Provide enough space around the device for safe operation and inspection.

⚠ **Avoid Obstruction of Distance Sensor:** Ensure that the distance sensor (B) is not obstructed by the chair structure or other obstacles.

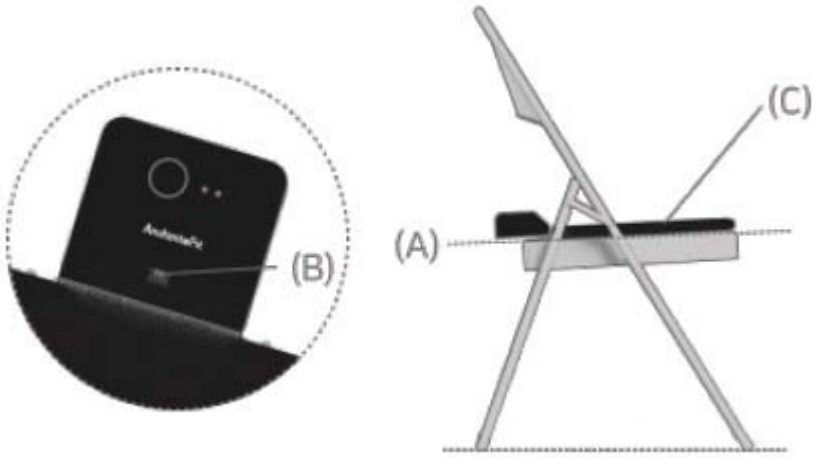
⚠ **Be Cautious with Charging Cable:** When performing a test while the device is charging, be cautious to avoid entanglement with the charging cable by users or patients.

⚠ **Keep the Seat Area Clear:** Do not leave any objects on the seating area (C) before use.

⚠ **Avoid Unstable Surfaces:** Do not use the device on chairs with wheels or those that are prone to slipping (e.g., unanchored chairs). Using the device on such surfaces may lead to patient falls during use.

⚠ **Check Device Stability:** Ensure that the device does not slip on the chair's seating surface. If the device slips when lightly pushed or when the chair is tilted, replace it with a different chair.

⚠ **Prepare for Operation:** The user (operator) should prepare to operate the device from a position within 3 meters of the device and instruct the patient to prepare for seating.



1) The user (operator) should place the device on the seating surface (A) of a flat, stable chair that can support sufficient weight.

   Note: The recommended height of the chair from the seating surface is approximately 45 cm, but it can be adjusted according to the patient's physical conditions. (Recommended seating surface height range: 40 ~ 54 cm)

2) Press the button on the device's head to power it on. When the device is turned on, the power status indicator (green LED) will light up.

4. Connecting the Mobile Application

⚠ **Download and Install the App:** Depending on the type of smart device you own, access the App Store (for iOS devices) or Google Play Store (for Android devices) and search for 'AndanteFit' or '안단테핏'. Download and install the latest version of the mobile application provided by the manufacturer.

⚠ **Purpose of the Mobile Application:** The mobile application provided by the manufacturer is used to control the device and view the measurement results.

⚠ **Enable Bluetooth and Internet:** Ensure that the Bluetooth and internet (cellular/Wi-Fi) functions on your smart device are activated. If these functions are not enabled, activate them before using the mobile application.

⚠ **Functionality:** If Bluetooth and internet functions are not enabled, you may not be able to install the mobile application or control the device through the application.

⚠ **Update the Application:** The mobile application may receive updates according to the OS policies of your smart device.

⚠ **Always maintain the latest version of the application to ensure proper functionality and accurate results. An outdated version may lead to inaccurate results.**

⚠ **The screenshots of the mobile application provided in the user manual may vary slightly depending on the version of the application.**

4.1. Mobile Application Setup

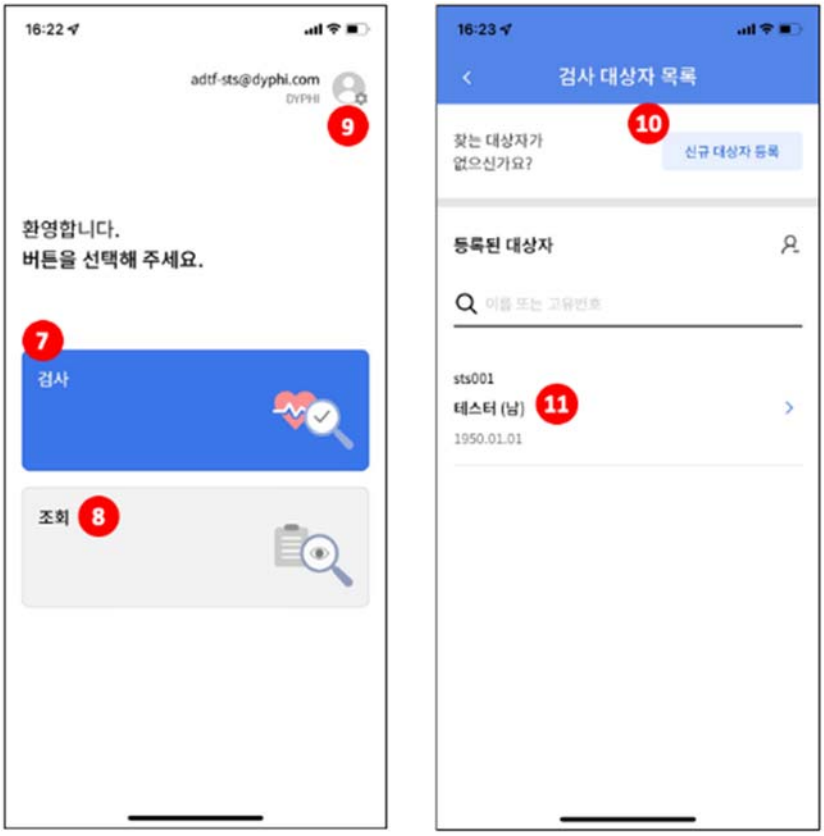
⚠ **Registration:** New users should press the 'Sign Up' button and complete the registration process using the email address licensed by the manufacturer.

⚠ **Recovering Email Address:** If you have lost your email address (ID), press the 'Find Email' button to verify your purchased device information and retrieve the registered email address.

⚠ **Recovering Password:** If you have forgotten your password (PW), press the 'Find Password' button to proceed with verification and reset your password.

1) The user (operator) should launch the installed mobile application on their smart device. Confirm that the displayed screen appears upon opening the application.
2) In the 'Email Address' text box, enter the email address set during registration.
3) In the 'Password' text box, enter the password set during registration. Then, press the 'Login' button to access the application.

4.2. Connecting to the Device



1) After logging in to the mobile application, tap the 'Test' button on the connected screen.
2) For a new patient test, tap the 'Register New Patient' icon and enter the patient's identification information (name, unique ID number, date of birth, gender).
3) Once the new patient's identification information is registered, search for the patient in the 'Registered Patients' list and complete the check-in process.
4) After the selected patient has been checked in, select the 'Start Test' tab on the bottom bar of the screen.

5) When the screen switches to the 'Start Test' view, check the connection status of the device. The 'Start Test' button will become active once the device is properly connected.

Note: If the mobile application is running on a smart device close to the device's main unit, the app will automatically detect the device.

Note: If the 'Start Test' button remains inactive for an extended period, ensure that the device is powered on (indicated by the green LED light). If the device is off, turn it on. If the button remains inactive even when the device is on, please contact customer support.

6) Under the activated 'Start Test' button, check the test settings.

7) To change the test settings, tap the gear icon in the top right corner.

Note: You can adjust settings such as test duration, number of tests, and termination posture.

For detailed test protocols, please refer to the guide documents specific to each test.

5. Error and Troubleshooting

5.1. Application Errors

1) The 'Start Exam' button is not activated on the test list screen after checking in the patient.
   - Cause:
     1. The device is not powered on.
     2. The device is too far away.
   - solution:
     1. If the device is not powered on, press the power button to turn it on.
     2. If the device is too far away and the Bluetooth signal is weak, the application may not be able to find the device. Ensure that the device is within 10 meters (3 meters recommended).

5.2. Functional Malfunctions of the Device

1) Values such as count or time do not change during the test, and the test does not progress normally.
   - Cause:
     1. Contamination on the surface of the distance sensor.
     2. Sensor malfunction.
   - Solution:
     1. If there are contaminants or obstructions on the surface of the distance sensor, it may interfere with sensor operation. Gently wipe the sensor cover with a soft cloth to remove any dirt.
     2. If the malfunction persists after cleaning the sensor surface, there may be a fault with the distance sensor or weight sensor. In this case, contact customer support immediately.

6. Other Important Information

6.1. Safety Precautions

1) Any incidents or hazards related to this device must be reported to both the manufacturer and the relevant authorities in the user's country under all circumstances.

6.2. User Responsibilities

1) This device must be used in accordance with the instructions specified in the user manual and on the labels.
2) Repairs and replacement of worn parts must be carried out only by authorized service personnel.
3) The manufacturer is not responsible for any damage resulting from non-compliance with the user manual.

6.3. Warranty

1) The warranty for this device is valid for 12 months from the date of purchase.
2) The warranty is only valid if approved accessories and parts provided by the manufacturer are used and if the device is used in accordance with the user manual and intended purpose.
3) The warranty will be void if the device is disassembled without authorization or if it has been serviced by non-certified personnel.

6.4. Conformity Declaration

1) This device complies with the medical device regulations of the respective country.

6.5. Electromagnetic Compatibility

1) This device is designed to operate in environments with controlled radio frequency interference. Users should maintain the minimum required distance between the smart device and the main unit to avoid electromagnetic interference.
2) This device is not protected from harmful interference and does not cause interference with systems that have been properly approved.

6.6. Disposal

1) This device must not be disposed of with household waste. Disposal should be carried out in accordance with the regulations of the local area. For disposal-related matters, please contact the relevant local authorities.

7. Product Specifications

Main unit weight	2.16 kg
Dimensions	318.2(W) x 450.0(L) x 50.0(H), (㎜)
Performance	1) Measurement Range and Accuracy: - Measurement Distance: 50mm ~ 700mm(±10%@50% reflectivity, indoor environment) - Measurement Weight: 0 ~ 20kg(±1.0kg) - Maximum Load Capacity: 150kg 2) Wireless Communication: - Operating Distance: Measurement values can be transmitted up to 10 m from the device
Recommended Storage and Operating Conditions	Temperature: 10 ~ 40℃ Humidity: 30 ~ 75% Atmospheric Pressure: 70 ~ 106 ㎪
Extreme Storage and Operating Conditions	Temperature: -10 ~ 70℃ Humidity: 10 ~ 80% Atmospheric Pressure: 50 ~ 106 ㎪
Minimum Requirements for Connected Smartphone/Tablet	OS: iOS 14 or Android 11 higher CPU: Quad-core or higher RAM: 2 GB or higher Connectivity: Bluetooth LE 5.0 or higher Storage: 100 MB or more
Charging Adapter Requirements:	USB Type Adapter (Output 5VDC/2.0A, IEC 60601-1)
Battery Capacity	3.7V 2,000mAh
Battery Operating Time	Approximately 24 hours (based on full charge) Note: Battery life may vary depending on usage environment and number of tests performed.

Note: Specifications are subject to change without notice to improve appearance and performance.

This device is a "medical device." Please read the safety precautions and usage instructions carefully.

AndanteFit

Model. ADTFM-MD-STS-V1

Test Guide

- Sit to stand test

8. Preparation

8.1. Device Installation and Mobile Application Execution

1) The user (operator) should place the device on a flat and stable chair seat that can support the required load.
2) Press the button on the device's head to turn it on. The power status indicator (green LED) will illuminate when the device is powered on.
3) Launch the mobile application and log in using the licensed ID (email address) and password.

For precautions related to device installation and application integration, please refer to the user manual.

8.2. Selecting (Check-in) the patient

1) Registering a New patient

① Log in with your user account and select ‘Register New Patient’ from the screen.

② Enter the patient’s personal information, including name, gender, date of birth, and unique identification number, then select ‘Next’.

③ Explain the “Terms of Use” and “Personal Data Collection and Utilization” to the patient whose information has been entered.

④ With the patient's consent, select ‘Sign’ to obtain the patient’s signature, then choose ‘Confirm’.

2) Searching and Selecting Existing patients

① Log in with your user account. Check the information of the patients displayed on the screen and select the appropriate one.

② Alternatively, use the 'magnifying glass' search bar to enter the name or unique number of the desired patient to find them.

③ On the screen confirming the patient's information, check that the selected patient matches the information displayed.

④ If you wish to select a different patient, press 'No' to return to the previous screen.

⑤ To check-in with the selected patient's information, press 'Yes'.

8.3. Checking and Modifying Set Test Criteria

1) Checking the Set Test Criteria

① After checking in the selected patient, tap the 'Start Test' button at the bottom to navigate to the 'Start Test' screen.

② In the 'Start Test' screen, test items with a completed device connection will be activated, allowing you to select the test. The activated 'Test Button' (e.g., Sit to stand) will display the current set criteria for the test.

※ Initial settings: Repetitions 5/End in standing position/60-second limit/No distance measurement before standing completely/0.85%

2) Modifying Set Test Criteria
   ① In the 'Start Test' screen, tap the 'Gear Icon' in the upper right corner to access the 'Test Settings' screen.
   ② In the 'Test Settings' screen, select 'Standing Test' to navigate to the 'Detailed Settings' screen.
   ③ In the 'Detailed Settings' screen, users can modify the following:
      · Number of 'Sit to stand'
      · Test end posture (Standing/Sitting)
      · Test time
      · Correction for Fully Standing Posture (On/Off)
      · Correction value

8.4. Exiting the Selected Patient

1) After checking in the test subject (patient), if you wish to complete the test or change the test subject, tap on 'Subject Information' at the bottom of the screen to navigate to the relevant screen.
2) On the screen, tap 'Checkout' located at the bottom of the patient information.
3) When the confirmation message appears, tap 'Yes' to be redirected to the 'Select Subject' screen, where you can either enter new subject information or select an existing one.

9. Conducting the Test

9.1. Selecting the 'Sit to stand Test'

1) The user (operator) should select 'Test' at the bottom of the screen after checking in the selected patient in the mobile application.
2) Upon navigating to the 'Test' screen, the application will automatically search for the activated device. Once the device is connected, the 'Sit to stand Test' button will become active.
3) Check that there are no issues with the test settings displayed under the 'Sit to Stand Test'.

If the settings need to be changed, modify the values according to this guideline before proceeding with the test.

9.2. Preparing the Patient

1) The user (operator) should instruct the selected patient to sit on the prepared chair.
2) The user (operator) should have the patient cross their arms over their chest or clasp their hands to stabilize their upper body as much as possible.
3) The user (operator) should then have the patient stand up as much as possible while keeping their upper body stable. In the fully standing position, the back should be as straight as possible.

9.3. Posture Calibration for the patient

1) If calibrating the patient's standing distance before the test,
   ① In the detailed settings of the "Sit to Stand Test," if you initiate "Posture Calibration for Standing Position," the device will measure the patient's standing posture.
   ② After transitioning to the "Test" screen, when the "Start Calibration" screen appears, press the button to begin calibration.
   ③ Ensure that the patient maintains a fully standing posture until the distance measurement is completed.
   ④ Once "Measurement Ready" is displayed on the screen, instruct the patient to sit back down on the chair.
      ※ If the "Start Calibration" screen does not appear within 2-3 seconds, press "Back" to exit the test screen and restart the process.
      ※ The calibration value for posture results in the "Sit to Stand Test" settings can be adjusted as needed.

2) If the standing distance calibration for the patient is not performed before the test,
   ① Instruct the standing patient to sit back down on the chair.

9.4. Performing the 'Sit to stand Test'

1) The user (operator) should ensure that, once the "Measurement Ready" status is displayed on the test screen, the patient performs the stand-up and sit-down actions at the prescribed speed and for the specified number of repetitions or duration.

2) During this time, instruct the patient to maintain upper body stability and perform the actions using only lower limb strength.
3) Upon completion of the test, the screen will automatically transition to the results display.

⚠ **Please note that the count may not be recorded according to the settings for "Complete Stand-Up Posture Calibration" in the detailed settings of the 'Sit to stand Test.' Therefore, the user (operator) should confirm the patient's ability to perform the test before starting.**

10. Test Completion and Record Verification

10.1. Test Completion

1) Upon completion of the 'Sit to stand Test,' the results of the test will be displayed on the screen.
2) To save the test results and end the session, press the "Save Results" button. If a confirmation screen appears, press "Save" to finalize the test and end the session.
3) If you wish to reconsider saving the results, press "Cancel" to return to the results screen.
4) To end the session without saving the results, press "Exit Without Saving." If a confirmation screen appears, press "Do Not Save" to exit the test.
5) If you wish to reconsider saving the results, press "Cancel" to return to the results screen.

10.2. Viewing Test Records

1) While checked in with the patient's information, press the "Test Results" button at the bottom of the screen to navigate to the results screen.
2) From the list of saved test results, locate and select the desired "Sit to stand Test" result to view the detailed test results.
3) To exit the detailed results screen, press "Back" or use the "Test Results" button at the bottom of the screen to return to the previous screen.

11. Test Protocol Example - 5 Repetitions Sit to stand Test

This test protocol was designed to perform the Stand-Up Test of the Short Physical Performance Battery (SPPB) using the 'ADTFM-MD-STS-V1' device and mobile application.

11.1. Single Sit to stand Test

Step	Content Description	Progress Direction
1	· Seat the patient on the chair where the device is placed. After checking in the patient on the application, select the 'Sit to stand Test' from the 'Test' screen.	→ Step 2
2	· Confirm with the patient whether they can stand up from the chair without using their arms.	☐ Yes → Step 3 ☐ No → Step 6
3	· Instruct the patient to "sit with your arms crossed and folded across your chest and the soles of your feet flat on the floor."	→ Step 4
4	· Instruct the patient to "stand up completely from the chair without using their arms" and observe the action being performed.	Without using their arms, ☐ Fully stands up → Step 5 ☐ Unable to stand up → Step 6
5	· **If performing distance measurement calibration (correction) for the standing position before the test,** Have the patient stand completely, then tap "Start Calibration" in the application. Once "Measurement Ready" appears, have the patient sit back in the chair and proceed to "4.2 Repeated Sit to Stand Test." · **If not performing distance measurement calibration (correction) before the test,** Have the patient sit back in the chair, and once "Measurement Ready" appears, proceed to "4.2 Repeated Sit to stand Test.	→ 4.2 Repeated Sit to stand Test
6	· To end the test, tap 'Cancel Test' on the application screen and record the test failure separately.	Single Sit to stand Test completed

11.2. Repeated Sit to stand Test

Step	Content Description	Progress Direction
1	· Ask the patient, "This time, we will repeat the previous action as quickly as possible for 5 times. Is that possible for you?"	☐ Yes → Step 2 ☐ No → Step 5
2	· Inform the patient, "If you feel dizzy or out of breath during the test and find it difficult to continue, please let us know." · Instruct the patient, "When you are ready, please stand up and sit down completely without using your arms as quickly as possible for 5 times." Then, observe the patient performing the task.	→ Step 3
3	· Did the patient complete the 5 Sit to stand test without any issues?	☐ Yes → Step 4 ☐ No(If the patient used their arms or did not fully stand up) → Step 5
4	· Save the test results and end the test.	Repeated Sit to stand Test completed
5	· Allow the patient to rest adequately before repeating the test from the beginning. · If it is determined that the patient is unable to perform the test, press 'Cancel Test' on the screen to end the test and record a test failure.	Repeated Sit to stand Test completed

MD

AndanteFit

DYPHI Inc.

Headquarters

(34134) C17, 99, Daehak-ro, Yuseong-gu, Daejeon, Republic of Korea

Research Institute

(05836) A-508,509, 25, Beobwon-ro 11-gil, Songpa-gu, Seoul, Republic of Korea

manufactory

(05836) A-1415, 25, Beobwon-ro 11-gil, Songpa-gu, Seoul, Republic of Korea

customer service center: 070-4167-2554

E-mail: info@dyphi.com

Product name	AndanteFit
Model name	ADTFM-MD-STS-V1
Item Name	System, isokinetic testing and evaluation (A30130.01[2])
Intended use	A device used to measure and evaluate muscle strength and joint range of motion in patients
Item approval (Certification) number	Marked on product separately
Serial number	Marked on product separately
Manufacture Date	Marked on product separately
Main unit weight	2.16 kg
Packaging Unit	1 set
Performance and Usage Instructions	Refer to this user manual
Safety Precautions	Refer to this user manual
Electrical Ratings	Charging Adapter Input: 100 -240 VAC, 50/60 Hz, 4.0A Charging Adapter Output: 5 VDC, 2.0 A, 10W Internal Battery: 3.7 V, 2,000 mAh Lithium Polymer
Protection Against Electric Shock	Class II equipment (Internal power supply) Type B Applied Part
Device Purpose (Operation Principle)	This device is a cushion-like unit used to assess lower limb muscle strength. It is placed on the seating surface of a chair and used as follows:

	An infrared laser emitted from the distance sensor built into the head section of the device measures the time it takes for the laser to return after hitting the patient's surface, thus determining the distance from the sensor to the patient. The contact surface of the device (patient contact area) is equipped with load cells that continuously detect weight changes while the patient's buttocks are in contact with the seating surface. The device analyzes changes in distance and weight values detected during the patient's sitting and standing movements to evaluate lower limb function and muscle strength
Contraindications / Usage Restrictions	1) Do not use if the body weight exceeds 150 kg. 2) In the following cases, you must consult a doctor before use and exercise caution. - Individuals with infectious diseases that may be transmissible - Individuals with severe knee disorders - Individuals with cognitive impairments - Individuals with lower limb fractures - Individuals under the influence of medication or alcohol - Any other conditions requiring consultation with a physician

⚠ **Before using this medical device, please carefully review the attached documentation and use the device according to the specified instructions. To avoid the risk of electric shock, do not attempt to disassemble the device.**

⚠ **When requesting service, please provide the following information: the model number of the purchased product, the fault condition, and your contact details.**