CITIZEN
Micro HumanTech

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**Instruction Manual
for
Digital Pedometer**

| Model TW610 |

Contents

- Thank you for purchasing the digital pedometer TW610.
- Please read this Instruction Manual before using this unit.
- Please keep this Instruction Manual for your future reference.

CITIZEN SYSTEMS AMERICA CORP.

Safety precautions

This instruction manual uses various illustrations to explain how to use the product correctly and safely in order to prevent any damage or injuries occurring to you, other people or property.

⚠ Warning	The column bearing this mark describes the content related to a hazard that may cause death or serious injuries.
⚠ Caution	The column bearing this mark describes the content related to a hazard that may cause injuries or property damage.
🚫	This mark indicates prohibited actions.
❗	This mark indicates items that are mandatory and the user is required to observe at all times.

⚠ Warning

🚫
- Keep batteries, main unit and attached screwdriver away from babies.
  >> Otherwise they may be accidentally ingested or cause injuries.

- Never dispose of batteries in the fire.
  >> Otherwise they may explode.

⚠ Caution

❗
- If you are not accustomed to daily exercise, consult your physician or trainer.
  >> Sudden and strenuous exercise is dangerous.

- If you are receiving treatment for injuries or diseases, consult your physician or trainer.

Precautions for handling and storage

■■ About handling

- Never disassemble the product.
  >> Otherwise it may result in product failure.

- Do not use or store the product in a dusty or damp location or where it may come in contact with water.
  >> Otherwise it may cause the product to fail.

- Do not subject the product to vibration or impact.
  >> Otherwise it may cause the product to fail.

- Be careful not to put the product into a washing machine by mistake or drop it in water.
  >> Otherwise it may cause the product to fail.

- Refrain from wearing it in the hip/rear pocket of your trousers.
  >> Otherwise it may break or cause an injury when you sit down.

■■ About maintenance

- Do not use thinner, benzine, alcohol, etc. for maintenance.
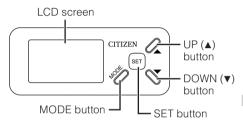 >> Clean the main unit using a soft cloth.

Features

- The 3D (triaxial accelerometer) sensor enables the pedometer to count the number of steps in any direction when placed in a pocket or bag

- The pedometer measures calorie consumption, amount of fat burned, walking distance, walking time and average walking speed.

- It displays the level of attainment of a preset daily target number of steps on a scale of nine.

- Data for the past 14 days is stored in the memory. You can view the accumulated data at any time.

- You can measure the number of steps or distance for any selected section.

- If no buttons are pressed for a while, the screen automatically returns to the standard display (number of steps, time and amount of exercise).

- If no buttons are operated and no vibration is generated by walking, power-saving mode is automatically enabled to reduce battery consumption.

- Memory data is not erased when the battery is replaced. (At most, data for the most recent one-hour period will be erased.)
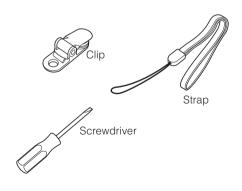
Before using this product

What to do first

Check the contents of the package and the names of the parts

Main unit

LCD screen

CITIZEN

UP (▲) button

DOWN (▼) button

MODE button

SET button

Clip

Strap

Screwdriver

Initializing the product

Turn on the power

1 Press and hold the [SET] button (for at least three seconds).
   • The entire display screen lights ready for initialization.

Initialization

When you have finished setting your weight, stride length, target number of steps and date/time, the pedometer is ready to use.

Set your weight

1 Press the UP (▲)/DOWN (▼) buttons until the correct weight is displayed.
   • Pressing the UP (▲) button increases the number and pressing the DOWN (▼) button reduces the number.

2 Press the [SET] button.

Set your stride length

1   Press the UP (▲)/DOWN (▼) buttons until the correct stride length is displayed.

```
     stride
     30    inch
```

- Stride length is the distance from the toe of one foot to the toe of the other foot.
- The table below shows approximate stride lengths.

Height	Stride
4' 10"	26 inch
5' 3"	28 inch
5' 7"	30 inch
5' 11"	32 inch
6' 3"	34 inch
6' 6"	35 inch

Stride length

2   Press the [SET] button.

Set your target number of steps

1   Press the UP (▲)/DOWN (▼) buttons until the desired target number of steps per day is displayed.

```
     10000   step
```

- You can set the number of steps in increments of 1,000 in the range of 3,000 to 30,000 steps.

2   Press the [SET] button.

Set the date and time

1 Press the UP (▲)/DOWN (▼) buttons until the correct year is displayed.

```
 1-01
0:00    11ʸᵉᵃʳ
```
▲

2 Press the [SET] button.
3 Press the UP (▲)/DOWN (▼) buttons until the correct month is displayed.

▼
```
 1-01
0:00    11ʸᵉᵃʳ
```

4 Press the [SET] button.
5 Press the UP (▲)/DOWN (▼) buttons until the correct day is displayed.

▼
```
 1-01
0:00    11ʸᵉᵃʳ
```

6 Press the [SET] button.
7 Press the UP (▲)/DOWN (▼) buttons until the correct hour is displayed.

```
 1-01
12:00    11ʸᵉᵃʳ
```
▲

The hour is displayed in 24-hour format. For example, to set 2:00 pm, set 14:00.

8 Press the [SET] button.

8

9 Press the UP (▲)/DOWN (▼) buttons until the correct minutes are displayed.

```
 1-01
12:38    11 year
     ⬆
```

10 Press the [SET] button.

• Initialization is now completed.

To redo

If you make a mistake or if you want to change the settings, follow the procedure below.

1 Press the [SET] button three times.

• The current date is displayed.

```
date
 1-01
19:38    11 year
```

2 Press and hold the [SET] button for approximately two seconds.

• The initialization screen is displayed.

3 Press the UP (▲)/DOWN (▼) buttons and [SET] button to set your correct weight, stride length, target number of steps and date/time in order.

```
weight
170  lb
```

Let's walk

When initialization is completed, the pedometer is ready to use. This section explains how to carry around the pedometer.

How to attach the strap

Thread the short end of the strap through the pedometer as illustrated in ① and thread the long end of the strap through the clip as illustrated in ②.

How to carry around the pedometer

Slide the pedometer in your pocket or carry it around in your bag.

Clip the strap to your pocket or the side of your bag to prevent it from falling out.

Take care not to pull too hard on the strap while the clip is attached to your clothes. Doing so may damage the fabric.

For correct measuring

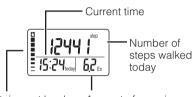Do not swing the pedometer about or play a sport while carrying it.

The pedometer may not measure correctly in the following situations.

- When you shuffle your feet
- When you wear sandals, clogs or flip-flops
- When you walk up or down a steep slope or stairs
- When you walk at an irregular pace in a crowded place
- When you walk repeatedly for short periods of less than six seconds
- When you are riding a bicycle, motorcycle, in a car, train or other means of transport
- When the pedometer is exposed to loud noise or continuous vibration

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Method of operation

Standard display

The following image illustrates the standard display. When an alternate mode is selected. the unit automatically returns to standard display mode if it is not in active usage for approximately 15 seconds.

Current time

Number of steps walked today

Target attainment level
This shows the level of attainment in relation to the preset target number of steps

Amount of exercise today
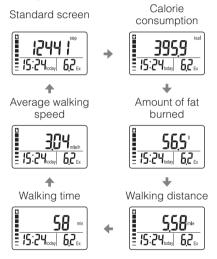(For information on amount of exercise, see page 22)

- If the pedometer is not in active usage for over 30 seconds, the LCD blacks out and the device enters power save mode. The device returns to normal mode when the user begins walking or operates any of the buttons.

- The number of steps taken on any one day is memorized at 2:00 am and the counter returns to zero.

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How to read the data

You can review your calorie consumption, amount of fat burned, walking distance, walking time, average walking speed and target attainment level (on a scale of 9).

1 Press the [MODE] button.
   • Each time the button is pressed, the display changes as shown below.

Standard screen

```
┌─────────────────┐
│ ▮    12441  step │
│ ▮                │
│ ▯ 15:24today 6.2 Ex│
└─────────────────┘
```

Calorie consumption

```
┌─────────────────┐
│ ▮    395.9  kcal │
│ ▮                │
│ ▯ 15:24today 6.2 Ex│
└─────────────────┘
```

Average walking speed

```
┌─────────────────┐
│ ▮    3.04  mile/h│
│ ▮                │
│ ▯ 15:24today 6.2 Ex│
└─────────────────┘
```

Amount of fat burned

```
┌─────────────────┐
│ ▮     56.5   g   │
│ ▮                │
│ ▯ 15:24today 6.2 Ex│
└─────────────────┘
```

Walking time

```
┌─────────────────┐
│ ▮      58   min  │
│ ▮                │
│ ▯ 15:24today 6.2 Ex│
└─────────────────┘
```

Walking distance

```
┌─────────────────┐
│ ▮     5.58  mile │
│ ▮                │
│ ▯ 15:24today 6.2 Ex│
└─────────────────┘
```
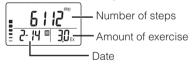
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How to read the memory data

You can view the data for the past 14 days stored in the memory.

1 Press the UP (▲)/DOWN (▼) buttons to change the displayed date.
 • Pressing the UP (▲) button changes the date away from the present and pressing the DOWN (▼) button changes the date closer to the present.

```
 12441 step
 15:24 today  6.2 Ex
```

2 To view other data, press the [MODE] button.
 • Each time the button is pressed, the displayed data changes.

```
 6112 step
 2-14 M  3.0 Ex
```
— Number of steps
— Amount of exercise
— Date

How to read the accumulated data

You can view the accumulated data for the past 7-day period (from 6 days ago to the current day).

1 Press the [SET] button.

```
 7D  58765 step
 2-08~  26.3 Ex
```

2 To view other data, press the [MODE] button.

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- Each time the button is pressed, the displayed data changes.
- The target attainment level shows the accumulated number of steps for a 7-day period in relation to the daily target x 7.

To return to the original step number display, press the [SET] button three times or press no buttons for approximately 15 seconds.

Sectional measuring

You can measure the number of steps taken over a certain distance, such as from home to the station, or the accumulated number of steps over a 1-month period, or the number of steps taken on an entire hiking route or excursion.

Start sectional measuring

1 Press the [SET] button twice.
   - The word [trip] appears.
2 Press and hold the UP (▲) button for approximately two seconds to set sectional measuring to On.

On/Off indicator

3 Press and hold the [SET] button for approximately two seconds.
   - The step number changes to zero and sectional measuring starts.

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To return to the original step number display, press the [SET] button twice or press no buttons for approximately 15 seconds. (Sectional measuring continues after the original step number display returns)

To view the results of sectional measuring

1 Press the [SET] button twice.
 • The number of steps taken over the section and the amount of exercise are displayed.

```
 trip          step
  1340
10:43~   0.6 Ex
```

The time or the date (if measuring extended over two or more days) when sectional measuring started is displayed.

2 To view other data, press the [MODE] button.
 • Each time the button is pressed, the displayed data changes.

To end sectional measuring

1 Press the [SET] button twice.

```
 trip          step
  1340
 OFF    0.6 Ex
```

2 Press and hold the DOWN (▼) button for approximately two seconds to set sectional measuring to Off.
 • To resume sectional measuring, instead of the DOWN (▼) button mentioned above, press and hold the UP (▲) button for approximately two seconds to select On. This feature is useful when you do not want to include the number of steps taken inside accommodation, such as on an overnight hiking trip, in sectional measuring.
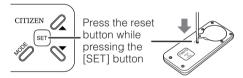
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Checking the date

You can check the current date.

1 Press the [SET] button three times.
   • The current date is displayed.

```
   date
  2- 15
19:37 | 11 year
```

Reset

If you want to erase the memory data or reset all the settings, such as weight, stride length, target number of steps and date/time, follow the procedure below.

1. While pressing the [SET] button, press the reset button on the back of the pedometer.

Press the reset button while pressing the [SET] button

2. Press the UP (▲) button.
3. When [YES] appears on the screen, press the [SET] button.
4. When [End] appears on the screen, press the [SET] button. Reset is completed and the display changes to the initialization screen.

About the battery

When the battery is low

When the battery is low, [BT] appears at the top of the screen. Replace the battery with a new battery of the following type as soon as possible (within approximately one week).

Battery: CR2032

+ 3 VOLTS

- The service life of the battery is approximately six months.
- The battery provided with the pedometer is only for trial use. Its service life may be short.
- When the battery is replaced, the number of steps for the portion of time from 00 min. to the current minute of the current hour is erased. The memory data, weight, stride length and target settings are saved.
- Dispose of used batteries according to the disposal method specified by the local authorities in your area.

How to change the battery

1 Open the battery cover.
   - To remove the battery cover, turn the screw in the cover counterclockwise using the provided screwdriver (small screwdriver).

2 Remove the old battery and insert a new battery.
   - Insert the battery with the positive pole (+) facing upward.

   Packing

3 Close the battery cover.
   - Insert the claw on the battery cover into the main unit, press the cover down and turn the screw in a clockwise direction.
   - When you close the battery cover, make sure that the *rubber seal* is not protruding from the groove.

   Claw

4 Press the reset button.
   - Insert a toothpick or similar object into the hole and press the reset button.

5 Perform initialization.
   - Follow the initialization procedure. (See page 6)

Troubleshooting

BT is displayed.

• The battery is low. Replace with a new battery (CR2032). (See page 18)

Nothing is displayed at all.

• Nothing is displayed when the pedometer is in power-saving mode. Press the [SET] button or any other button.
• Check that a battery is inserted and that it is correctly oriented. (See page 18)
• The battery may be exhausted. Replace with a new battery. (See page 18)
• If you are using the pedometer for the first time, press and hold the [SET] button (for at least three seconds). (See page 6)
• Press the reset button on the back of the pedometer. (See page 19)

The reading seems inaccurate.

• Check whether you are using the pedometer correctly. (See page 10)

Steps are not counted when I shake the pedometer.

• To prevent measuring errors, 'walking' is judged to be performed after at least six seconds of walking and the relevant number of steps up to that point are added on. Shaking the pedometer once or twice doesn't have an impact on the number of steps counted.

No steps have been counted.

• If the initialization screen is flashing, your steps will not be counted. (See page 6)

I don't want the memory data to be erased when I change the battery.

• The memory data, weight, stride length and target settings are not erased when you change the battery. (At most, the data for the most recent one-hour period will be erased.) So you can avoid any interruption in the data by changing the battery in the morning before you start walking.

How do I erase the memory data?

• Follow the reset procedure. (See page 17)

The buttons don't respond.

• Press the reset button on the back of the pedometer. (See page 19)

What is an amount of exercise?

Amount of exercise (Ex) refers to the unit indicating the amount of physical activity. To prevent lifestyle diseases, you are recommended to actively engage in a minimum of 23 Ex physical activities (exercise and daily activities) a week. It is also recommended that you check with the guideline by the health authority in your area.

Amount of exercise (Ex) = Intensity of physical activities (METs) x Time (hr).

Intensity of physical activities (METs) multiplied by duration (hr) of physical activity makes an amount of exercise (Ex).

METs = Metabolic Equivalents, the unit of intensity of physical activities

The unit for expressing the "intensity of physical activities" by the multiplication equivalent to the counterpart during rest. Normal walking is equivalent to 3 METs.

This product indicates the amount of exercise (Ex) by the number of steps.

Reference)

Normal walking (3 METs) x 1 hour = 3 Ex

Fast walking (4 METs) x 1 hour = 4 Ex

Specifications

Detection system	3D acceleration sensor
Display method	LCD display
Display contents	
Date and time	24-hour format (year/month/day/hour/minutes)
Number of steps	999,999 steps
Calorie consumption	99,999.9 kcal
Amount of fat burned	9,999.9 g
Walking distance	999.99 miles
Walking time	99,999 minutes
Average walking speed	99.99 mile/hr
Exercise	99.9 Ex
Target attainment level	0 to 8 (on a scale of 9)
14-day memory, data accumulated for 7 days	Number of steps, calorie consumption, amount of fat burned, walking distance, walking time, walking speed, amount of exercise, target attainment level
Setting range	
Weight	40 to 450 lb
Stride length	8 to 60 in.
Daily target number of steps	3,000 to 30,000 steps
Accuracy	
Number of steps	+/- 5% (based on Citizen vibration tester)
Clock	Within +/- 30 seconds per month (at 72°F, 22°C)
Drip-proof (Drip-proof Type I)	Compliant with JIS C 0920:2003
Power supply	3 V DC (one CR2032 battery)
Battery service life	Approx. 6 months (when walking approx. 10,000 steps on average per day)
Service temperature range	32°F to104°F (0°C to 40°C)
Storage temperature range	-4°F to 140°F (-20°C to 60°C)
Outside dimensions (W x H x D)	Approx. 2 6/7" × 1 2/9" ×3/8" (73 × 31 × 10 mm)
Dimensions of display (W x H)	Approx. 1 2/7" × 5/7" (32.5 ×18.5 mm)
Weight	Approx. 8/9 oz (25 g)

Please note that the step number data, etc. may be erased when the pedometer is repaired or parts are replaced.

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1-YEAR LIMITED WARRANTY

Congratulations on your purchase of a Digital Pedometer. Your Digital Pedometer, excluding the battery, is covered by the following limited warranty commencing upon the date of purchase, and subject to the following terms and conditions:

The Warrantor warrants that its Digital Pedometer will be free from defects in materials and workmanship under normal consumer usage for a period of one year for the original purchaser of the product.

Periodic maintenance, repair and replacement of parts due to normal wear and tear are excluded from coverage. Defects or damage that result from: (a) improper operation, storage, misuse or abuse, accident or neglect, such as physical damage (cracks, scratches, etc.) to the surface of the product resulting from misuse; (b) contact with liquid, water, rain, extreme humidity or heavy perspiration, sand, dirt or the like, extreme heat, or food; (c) use of the Digital Pedometer for commercial purposes or subjecting the Digital Pedometer to abnormal usage or conditions; or (d) other acts which are not the fault of the Warrantor, are excluded from coverage. This warranty does not cover batteries or other power sources that may be provided with, or used with the Digital Pedometer.

If the Digital Pedometer fails to conform to this limited warranty, return the Digital Pedometer postage prepaid along with $5.00 for return shipping, handling and insurance to: Attn: CITIZEN SYSTEMS AMERICA CORPORATION 363 VAN NESS WAY , SUITE 404 TORRANCE, CA 90501 USA. When returning a product, please also include: (i) a copy of your receipt, bill of sale or other comparable proof of purchase; (ii) a written description of the problem; and (iii) your name, address and telephone number. Carefully package the product to avoid any damage that may occur while in transit; shipping insurance with returned receipt is recommended. At our option, the Warrantor will repair or replace the unit found to be defective in materials or workmanship under normal consumer usage. The purchaser will be notified of any additional repairs required prior to completing the repair, and will be responsible for parts charges, if any, and repair charges not covered by this limited warranty.

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