A&D Medical

# Ambulatory Blood Pressure Monitor
# TM-244x series

*All-in-One*

## TM-2441

## TM-2440

The TM-2440 and TM-2441 have been validated in accordance with ISO protocols. Lightweight and compact design facilitates easy operation by patients and research participants. New features allow for the detection of Irregular Heartbeat (IHB) as well as standard ABPM measurements. The TM-2441 also has an LCD screen and slide switch to enable easy self-measurement. Collects data on various external factors (temperature, pressure, etc.) that influence blood pressure fluctuations. Included software provides useful analysis from data collected.

### The global and regional guidelines recommend Out-of-Office measurements

| | | TM-2441 | TM-2440 |
|---|---|---|---|
| External Dimensions | W × H × D (cm) | 66 × 24.5 × 95 | 66 × 24.5 × 95 |
| Weight | Without batteries | 135 g | 120 g |
| Power Supply | Alkaline or Ni-MH "AA" batteries | 2 × LR6("AA") | 2 × LR6("AA") |
| Memory Data | Number of datasets | 600 | 600 |
| BP Measurement Function | ABPM | ✔ | ✔ |
| | Self-Measurement | ✔ | — |
| IHB | Irregular Heart Beat | ✔ | ✔ |
| Record Pulse wave | Use analysis software | ✔ | ✔ |
| Multi sensor | Activity / Temperature / Atmospheric pressure | ✔ | — |
| Data communication | USB1.1 compliant | ✔ | ✔ |
| | Bluetooth (SDK available for Medical Developer) | ✔ | — |
| Display | LCD: Self -BP measurement display | ✔ | — |
| | OLED: ABPM display | ✔ | ✔ |
| Clinical trial | ISO 81060-2:2013 | ✔ | ✔ |

Made in Japan

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Discover Precision

# Ambulatory Blood Pressure Monitor

## TM-2441

All-in-One

Clinically Validated

CE 0123

TM-2441 can process five types of self-measurement while recording environmental data (temperature, pressure, activity) through a multi-sensor. It is an “All-in-One” model that covers any environment from the doctor’s office to home. Pulse data during BP measurement is recorded in the device, with analysis software (included) providing the precise waveform. Viewing this data improves the accuracy of BP measurements and helps to verify irregular pulse waves[1].

- 24-hour ambulatory blood pressure monitoring
- Self-measurement
  - OBP : Office Blood Pressure
  - AOBP : Automated Office Blood Pressure
  - HBP : Home Blood Pressure
  - ANBP : Automated Night Blood Pressure
  - ASBP : Automated Self Blood Pressure
- Easy to use mode slide switch
- The pulse correction algorithm for faster measurement & noise rejection
- Battery Power (2 alkaline or Ni-MH "AA")
- Output to data to analysis software (included with device)
- USB & BLE[2] Connectivity
- Ingress protection IP22
- Protocol ISO 81060-2

### ▼Self measurement mode displays


LED display: This large display shows data from measurements in self-measurement mode. You can easily check the time until the next ABPM measurement in addition to values in self-measurement mode. There are also icons for battery level, Bluetooth status, IHB detection, clock, mode and memory status.

1) Hypertension Canada
2) SDK available for Medical Developer

## TM-2440

Clinically Validated

CE 0123

A&D’s TM-2440 is an entry-level model designed for ABPM measurement. Its compact body simplifies the monitoring of research participants and comes standard with an Irregular Heartbeat (IHB) function, which detects pulse irregularities and can check waveforms easily via analysis software (included). These features in the TM-2440 support ABPM measurement.

- 24-hour ambulatory blood pressure monitoring
- Light weight & compact size
  120 g*, 66(W)×24.5(H)×95(D) mm *Without batteries
- OLED display (ABPM mode)
- The pulse correction algorithm for faster measurement & noise rejection
- Battery powered (2 alkaline or Ni-MH “AA”)
- Output of data to analysis software (included with device)
- USB connectivity
- Ingress protection IP22
- Protocol ISO 81060-2

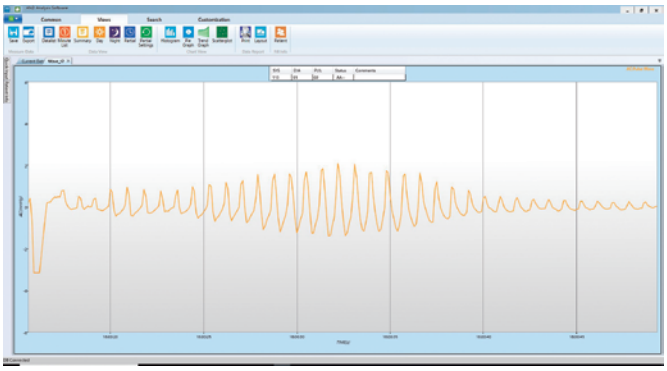
# Software ABPM Data Manager

**Included with every unit**

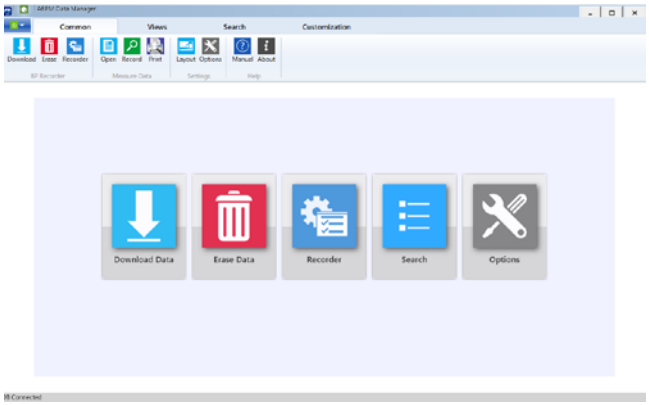
## ▼Multisensor data analysis with the software

The newly designed software can analyze environmental data collected by the multi-sensor in addition to ABPM measurement data. Temperature, pressure and activity can be graphed alongside blood pressure. TM-2441 only (TM-2440 does not have a multi-sensor)

## ▼Waveform data recording and displaying



The TM-244x series records blood pressure as an oscillometric waveform. With our new analysis software you can check the waveform record for each measurement. Quickly determine the accuracy of measured values.




◀ System requirements

| | |
|---|---|
| Computer CPU: | 1 GHz or higher processor |
| Memory: | 2 GB or more |
| Operation System (recommended) : | Windows 10 64-bit version or higher |
| SVGA: | Recommended 800×600 pixels or more |
| Disk: | DVD drive (drive corresponding to enclosed media) |
| Hard disk: | Available space of 24 GB |

# Options


| | |
|---|---|
| TM-CF502D | Extra large cuff for left arm (36 cm-50 cm) |
| TM-CF402D | Large cuff for left arm (28 cm-38 cm) |
| TM-CF302D | Adult cuff for left arm (20 cm-31 cm) |
| TM-CF202D | Small cuff for left arm (15 cm-22 cm) |
| TM-CF802D | Adult cuff for right arm (20 cm-31 cm) |
| TM-CF306A | Disposable cuff (10 sheets) |
| TM-CT200-110B | Air hose adapter for disposable cuff |
| AX-133024503-S | Extra large cuff cover for left arm (10 sheets) |
| AX-133024663-S | Large cuff cover for left arm (10 sheets) |
| AX-133024500-S | Adult cuff cover for left arm (10 sheets) |
| AX-133024667-S | Small cuff cover for left arm (10 sheets) |
| AX-133024353-S | Adult cuff cover for right arm (10 sheets) |
| AX-133039856-S | Extra large cloth for left arm (2 sheets) |
| AX-133039855-S | Large cuff cloth for left arm (2 sheets) |
| AX-133039658-S | Adult cuff cloth for left arm (2 sheets) |
| AX-133039854-S | Small cuff cloth for left arm (2 sheets) |
| AX-133039857-S | Adult cuff cloth for right arm (2 sheets) |
| AX-133025995 | Carrying holder |
| AX-110B-20-S | Clips (5 pieces) |

## Specifications

| | TM-2441 | TM-2440 |
|---|---|---|
| Measurement Method | Oscillometric measurement method | |
| Pressure detection method | Semiconductor pressure sensor | |
| Pressure display range | 0 to 299 mmHg (299 mmHg or more is hidden ) | |
| Measurement accuracy | Pressure : ±3 mmHg<br>Pulse rate : ±5 % | |
| Minimum display division | Pressure : 1 mmHg<br>Pulse rate : 1 beat / minute | |
| Measurement range | Systolic pressure : 60 to 280 mmHg<br>Diastolic pressure : 30 to 160 mmHg<br>Pulse rate : 30 to 200 beat / minute | |
| Pressurization method | Micro pump | |
| Automatic pressurization | 85 to 299 mmHg | |
| Interval Setting | Intervals at each section which divides 24 hours up to maximum six parts.<br>Interval : OFF, 5, 10, 15, 20, 30, 60, 120 minutes | |
| Display | A-BPM : OLED, 96 × 39 pixels, white characters<br>S-BPM : LCD, 40 × 50 mm, Display | A-BPM : OLED, 96 × 39 pixels, white characters |
| Clock | 24 hour clock | |
| Measurement count | 200 times or more. varies due to measurement conditions. | |
| Memory Data | 600 data max | |
| Power supply | With the same type of batteries : 2 × 1.5V batteries (LR6 or AA size)<br>Alkaline battery or Nickel-hydrogen battery (Ni-MH) 1900 mAh or more<br>Backup battery for built-in clock : Lithium rechargeable coin cell battery ML2016 | |
| Rated voltage | DC 2.4 V and DC 3.0 V | |
| Interface | USB : USB1.1 compliant.<br>Cable length : 1.5 m or shorter<br>Micro-USB B type terminal can connect to dedicated peripheral (using standard driver software).<br>Bluetooth Ver.4.1 (BLE) :<br>Wireless device can be connected.<br>SDK available for Medical Developer | USB : USB1.1 compliant.<br>Cable length : 1.5 m or shorter<br>Micro-USB B type terminal can connect to dedicated peripheral (using standard driver software). |
| Operating conditions | Temperature : +10 to +40 °C<br>Humidity : 30 to 85 %RH (no condensation) | |
| Atmospheric pressure both for operation and storage condition | 700 to 1060 hPa | |
| External Dimensions | Approx. 95 (L) × 66 (W) × 24.5 (H) mm | |
| Weight | Approx. 135 g (excluding batteries) | Approx. 120 g (excluding batteries) |

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**A&D Company Limited.(JAPAN)**
URL:aandd.jp

**A&D ENGINEERING, INC.(USA)**
URL:andonline.com

**A&D Instruments Canada Inc.(CANADA)**
URL:autocontrol.com

**A&D INSTRUMENTS LIMITED(United Kingdom)**
URL:andprecision.com

**A&D AUSTRALASIA PTY LTD(Australia)**
URL:andaustralasia.com.au

**A&D RUS CO., LTD.(Russia)**
URL:and-rus.ru

**A&D Technology Trading(Shanghai)Co., Ltd(China)**
URL:aanddtech.cn

**A&D INSTRUMENTS INDIA PRIVATE LIMITED(India)**
URL:aanddindia.in

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