exerspy™ | ACTIVITY AND CALORIE TRACKING SYSTEM

ARMBAND USER GUIDE

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Purpose of the System

Intended Use

The exerspy calorie and activity tracking system works with the dotFIT Me Program to record, analyze and report parameters. These objective health metrics enable you to maintain a healthy weight and an active lifestyle, which are continually cited as the keys to combating and managing serious medical conditions including obesity, cardiovascular disease and diabetes. The information presented by the system can be used by your physician or healthcare practitioner to assess your physical activity level and help you reach dietary and weight control goals.

Risks and Benefits

The predominant benefit of the product is the enabling of the monitoring and management of daily metabolic and lifestyle data in order to reach your activity and weight goals. In addition to weight management, known benefits of increasing activity levels include increased life expectancy, improved sleep, and enhanced appearance and "self-perception".

Analysis and post market surveillance indicates that the risks of using the product are extremely low. No significant health risks have been identified. The most frequently reported health risk, occurring in less then 1% of users, is a mild to severe skin irritation resulting from wearing the armband. Following proper wear and cleaning instructions often resolves this issue. If irritation continues, discontinue use and consult a physician. Follow all instructions regarding how to properly wear and clean the armband to minimize the chance of irritation. If you have a known metal allergy consult your physician prior to using the product. Read the instructions provided and all cautions before using the armband.

Wearing the exerspy™ Armband

Refer to the enclosed Start Here! card for instructions on how to start using your exerspy™ activity and calorie tracking system.

The exerspy armband (the "armband") is designed to be worn on the back of the upper left arm (the triceps) with the logo towards the shoulder and the sensors touching the skin.

1. Slide the armband onto your left arm.
2. Adjust the strap so that it fits on your arm comfortably, and secure the pull-tab. Ensure that the sensors maintain continuous contact with your skin at all times and that the armband does not slide off your arm. Be sure not to secure the strap too tightly.

Removing the Armband Strap From the Armband

1. Start with the armband text facing up. Apply continuous downward pressure to the right side of the armband until it separates from the armband strap.
2. Reattach by first aligning the USB port with the indentations on the left side of the strap/wing assembly. Apply upward pressure to the right side until it snaps into place.

exerspy™ Armband Care and Maintenance

Clean the armband daily especially after sweating or when it becomes noticeably moist or dirty. Disinfecting the armband with isopropyl alcohol may be required occasionally. Failure to keep the armband clean or improper cleaning may irritate the skin and affect the sensor performance.

Cleaning
To clean the armband: Gently wipe the side of the armband touching the skin with a soft cloth or towel moistened with a mild soap and water. Wipe with a clean damp cloth to remove any excess soap remaining. Use a dry, soft cloth or towel to completely dry the armband before wearing it.
Never use solvents to clean the armband.

To clean the strap/wing assembly: Hand wash with mild soap and warm water, rinse, then air dry. Machine drying may affect the performance and lifespan of the strap.

Disinfecting
The armband may need to be disinfected occasionally. Wipe the entire armband with a soft cloth dampened with 70% isopropyl alcohol. Allow the armband to dry for 5-10 minutes before wearing it. Always disinfect the armband and replace the armband strap prior to use by others.
DO NOT STERILIZE THIS UNIT.

Water Resistance
DO NOT IMMERSE THE ARMBAND IN WATER. The armband is not designed to be used underwater or to come into continuous contact with water.

Status Indicators

Power
The armband does not have a power button. When the armband makes secure contact with your body it will power on automatically. This may take up to 10 minutes. Activation is indicated by a series of audio tones.

Battery
It is recommended to fully charge the battery before use. To charge the battery, remove the armband strap and plug the USB cable into your PC. Then plug the other end of the USB cable into the armband. The battery charges via the USB cable from a completely depleted state to full capacity in approximately 3 hours. The battery light will flash green when the armband is fully charged.

Starting with a fully charged battery, the armband battery will last for 5-7 days of steady use before needing to be recharged.

To check the status of the battery, remove the armband from your arm and press the Status Button. The battery light will turn on as follows:

- Green (solid) = More than 24 hours of battery life remain.
- Amber (flashing) = Less than 24 hours of battery life remain.
- Red (flashing) = The armband will not collect data. Charge the battery before continuing use.

Memory
During steady use the armband will hold 14 days of data.

To check the memory status, remove the armband and press the Status Button. The memory light will turn on as follows:

- Green (solid) = More than 24 hours of memory life remain.
- Amber (flashing) = Less than 24 hours of memory life remain.
- Red (flashing) = The Armband will not collect data. You must upload data before continuing use.

For more information or troubleshooting help, please go to www.dotFIT.com/exerspyhelp or call Technical Support at 877.436.8348.

Important Information About the Armband


Follow operating instructions


CAUTION


Non-ionized radiation


The Waste Electrical and Electronic Equipment Regulations indicates separate collection for electrical and electronic equipment


Electrical Safety


Type B Applied Part


FCC Logo

CE (Conformité Européenne) mark

Information on Proper Disposal of the exerspy™ Armband

Attention: If you want to dispose of the equipment, please do not use the ordinary trash!

The product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local authority, your household waste disposal service or the shop where you purchased the product.

Cautions ⚠

Always consult a physician before starting any new diet or exercise program. This system is not to be used for diagnostic purposes. This system is not intended as a substitute for the medical advice or supervision of your personal physician.

CAUTION: This product is not defibrillation proof.

CAUTION: Do not get the device close to other devices that can cause electromagnetic interferences of any nature.

CAUTION: EQUIPMENT not suitable for use in the presence of a FLAMMABLE ANAESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE.

CAUTION: Medical electrical equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided on pages 14 –17. Portable and mobile RF communications equipment can affect medical electrical equipment.

CAUTION: The equipment or system should not be used adjacent to or stacked with other equipment and if adjacent or stacked use is necessary, the equipment or system should be observed to verify normal operation in the configuration in which it will be used.

CAUTION: Keep the armband out of reach of children. It contains smaller, removable parts which can become choking hazards.

CAUTION: The device and wireless accessories should not be used in airplanes, hospitals, or locations where cellular telephones or electronic devices are prohibited.

CAUTION: Do not use unapproved accessories with the armband.

Important Information About the Armband (Continued)

CAUTION: Reminders should not be used for life-critical events, such as taking certain medications, if they are vital to your daily health.

CAUTION: When the armband is on the arm, DO NOT connect it to the USB cable.

CAUTION: If you have known metals allergies, you should consult your physician prior to wearing.

CAUTION: Check armband for sharp edges or damage before each use.

CAUTION: Avoid wearing the armband when it has been exposed to excessively hot temperatures (i.e., direct sun exposure) to avoid burns to the skin.

CAUTION: Users should avoid wearing the armband excessively. To reduce potential for skin irritation wear the armband for a maximum of 23 hours per day.

CAUTION: The tab should be aligned with the strap to avoid unintended contact with the skin which may cause scratching.

CAUTION: Do not wear the armband on an open wound, sore or burn.

CAUTION: Be careful not to over-tighten the armband while on your arm. If you feel constriction or loss of circulation at any time, simply loosen the adjustable strap and re-fasten it to a more comfortable setting.

CAUTION: Each material was chosen for its precedent in other skin contact products or has been independently approved for skin contact. However, everyone's skin is different and you may experience irritation or redness after wearing the armband. If this occurs, discontinue use and consult your physician.

CAUTION: To reduce the risk of skin irritation, be sure to dry your arm throughly before wearing the armband.

CAUTION: DO NOT IMMERSE THE ARMBAND IN WATER. The armband is not designed to be used underwater or to come in continuous contact with water.

CAUTION: Though the armband was designed for wearability and long-term use, it is a sensitive monitoring device. Rough handling can break internal components. Never drop or shock the armband and always store it in a safe place when not in use.

CAUTION: Avoid exposing the armband to extreme temperatures, direct sunlight, moisture, sand, dust, or mechanical shock.

CAUTION: To prevent possible damage to the USB cable, grasp the plug end when disconnecting the USB cable. Replace the cable if it becomes frayed.

CAUTION: Do not incinerate.

CAUTION: Dispose of device in accordance with local, state, federal, or country specific regulations.

CAUTION: Do not attempt to open the armband yourself. It contains no user-serviceable parts. Refer all servicing to qualified Service Personnel. Opening the armband yourself will void the warranty.

CAUTION: Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Product Specifications

- Sensors:
    - Accelerometer (3-axis)
    - Heat Flux
    - Skin Temperature
    - Galvanic Skin Response (GSR)
- Materials:
    - Armband: ABS, polycarbonate, thermoplastic polyurethane, 304 grade stainless steel
    - Adjustable strap/wing assembly: Nylon, polyester, Lycra (no latex content) or polyisoprene, polycarbonate, thermoplastic polyurethane, silicone
- Battery type: Internal lithium polymer cell battery
- RF Frequency: 2.4GHz
- Transmitter output power: <1mW
- Battery power: about 5-7 days under steady use
- Memory capacity: about 14 days under steady use
- Armband size: (l) 55mm x (w) 62mm x (h) 13mm [2.2" x 2.4" x 0.5"]
- Armband weight (with adjustable strap): 45.4g (1.6oz)
- Water resistance: IP64 classified (only when armband is properly inserted into the Armband Strap)
- Operating temperature/humidity: 5°C - +40°C (40°F to 104°F)/ 5 - 95% RH non-condensing
- Non operating temperature/humidity: -20°C - +60°C / 5 - 95% RH non-condensing.

Design and specifications are subject to change without notice.

Accuracy

Accelerometer (3-axis)

Calibrated range is +/- 2.0g

The minimum resolution is 0.01g

Two-standard-deviation accuracy of +/- 0.05g, up to 1.0g on longitudinal axis

Two-standard-deviation accuracy of +/-12.0% of expected value otherwise on the longitudinal axis

Two-standard-deviation accuracy of +/- 0.06g up to 1.0g on the transverse axis

Two-standard-deviation accuracy of +/-12.0% of expected value otherwise on transverse axis

Two-standard-deviation accuracy of +/- 0.06g up to 1.0g on the forward axis

Two-standard-deviation accuracy of +/-12.0% of expected value otherwise on forward axis

Heat Flux

Calibrated Range is 0.0 W/m^2 to 300.0W/m^2

A minimum resolution of 1.0W/m^2

Two-standard-deviation of +/-10.0W/m^2 at heat flux less than 50W/m^2
Two-standard-deviation of +/-35.0% of expected value otherwise

Galvanic Skin Response

Calibrated Range is 56k Ohms to 20M Ohms (50.0 nSiemens – 17.0 uSiemens)

Two-standard-deviation accuracy of +/- 7.0 nSiemen up to 233.34 nSiemens reading

Two-standard-deviation accuracy of +/- 3.0% of expected value otherwise

Skin Temperature

Calibrated Range is 20.0°C to 40.0°C

A minimum resolution of 0.05°C

Two standard deviation accuracy of +/- 0.8°C

System (Per day, adults)

Total calories/METs for free living activities: mean error < 10%

Total minutes of physical activity: mean error < 5%

Total step count: mean error $\leq$ 9%

User Environment

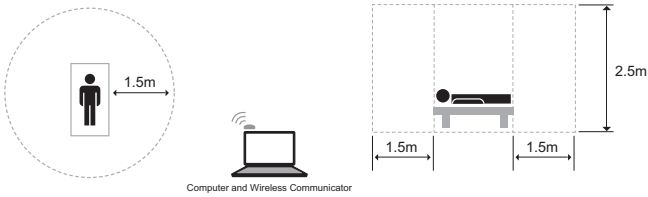

Diagram not to scale.

Guidance and Manufacturer's Declaration - Emissions
The armband is intended for use in the electromagnetic environment specified below. The customer or user of the armband should ensure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment - Guidance
RF Emissions CISPR 11	Class B, Group 1	The armband uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
Harmonics IEC 6100-3-2	N/A	The armband is suitable for use in all establishments, including domestic, and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Flicker IEC 6100-3-3	N/A	

Guidance and Manufacturer's Declaration - Immunity			
The armband is intended for use in the electromagnetic environment specified below. The customer or user of the armband should ensure that it is used in such an environment.			
Immunity Test	**IEC 60601 Test Level**	**Compliance Level**	**Electromagnetic Environment - Guidance**
ESD IEC 61000-4-2	±6kV Contact ±8kV Air	±6kV Contact ±8kV Air	Floors should be wood, concrete, or ceramic tile. If floors are synthetic, the r/h should be at least 30%.
EFT IEC 61000-4-4	±2kV Mains ±1kV I/Os	N/A	Mains power quality should be that of a typical commercial or hospital environment.
	±1kV Differential ±2kV Common	N/A	
Voltage Dips/ Dropout IEC 61000-4-11	>95% Dip for 0.5 Cycles 60% Dip for 5 Cycles 30% Dip for 25 Cycles >95% Dip for 5 Seconds	N/A	Mains power quality should be that of a typical commercial or hospital environment. If the user of the armband requires continued operation during power mains interruptions, it is recommended that armband be powered from an uninterruptible power supply or battery.
Power Frequency 50/60Hz Magnetic Field IEC 61000-4-8	3A/m	3A/m	Power frequency magnetic fields should be that of a typical commercial or hospital environment.

User Environment (Continued)

Guidance and Manufacturer's Declaration - Emissions
The armband is intended for use in the electromagnetic environment specified below. The customer or user of the armband should ensure that it is used in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
			Portable and mobile communications equipment should be separated from armband by no less than the distances calculated/listed below:
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms 150 kHz to 80 MHz	D=(3.5/V1) (Sqrt P)
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m 80MHz to 2.5 GHz	D=(3.5/E1) (Sqrt P) 80 to 800 MHz D=(7/EI) (Sqrt P) 800 MHz to 2.5 GHz
			Where P is the max power in watts and D is the recommended separation distance in meters. Field strengths from fixed transmitters, as determined by an electromagnetic site survey, should be less than the compliance levels (V1 and E1). Interference may occur in the vicinity of equipment containing a transmitter.

Recommended Separation Distances for the Product
The armband is intended for use in the electromagnetic environment specified below. The customer or user of the armband can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF Communications Equipment and the armband as recommended below, according to the maximum output power of the communications equipment.

Max Output Power (Watts)	Separation (m) 150kHz to 80MHz D=(3.5/V1)(Sqrt P)	Separation (m) 80 to 800MHz D=(3.5/V1)(Sqrt P)	Separation (m) 800MHz to 2.5GHz D=(7/E1)(Sqrt P)
0.01	0.1166	0.1166	0.2333
0.1	0.3689	0.3689	0.7378
1	1.1666	1.1666	2.3333
10	3.6893	3.6893	7.3786
100	11.6666	11.6666	23.3333

Regulatory Statement

FCC Declaration of Conformity – We, BodyMedia, Inc., 4 Smithfield Street, 11th Floor, Pittsburgh, PA 15222, phone: 412-288-9901, declare under our sole responsibility that the products, BodyMedia, Inc. and BodyMedia® Armband Model MF, 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 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 separate from the receiver.
- Consult the dealer or an experienced radio/TV technician for help.
- ⚠ CAUTION: Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF Exposure information: See 2.1093 of the FCC Rules

This product is a Type B Applied Part complying with the specified requirements of the Standard to provide protection against electric shock, particularly regarding allowable Leakage Current.

This Class B digital apparatus complies with Canadian ICES-003.
Cet apareil numèrique de la classe B est conforme à la norme NMB-003 du Canada.

RF frequency: 2.4 GHz
Transmitter output power: <1mW

CENELEC EN 60601-1-2 - 2001 - Medical electrical equipment Part 1-2: general requirements for safety - collateral standard: electromagnetic compatibility - requirements and tests IEC 60601-1-2: 2001

CENELEC EN 60601-1-1 - Medical electrical equipment - Part 1: general requirements

CAN/CSA-C22.2 No.606.1-M90

ETSI EN 301 489-1 - Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) Standard for Radio Equipment and Services; Part 1: Common Technical Requirements V1.3.1

ETSI EN 301 489-3 V1.2.1 (2005 -09) - Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Harmonized EN for ElectroMagnetic Compatibility (EMC) of Radio Comms. Equipment and Services; Pt. 3: Specific Conditions for Short-Range Devices (SRD) Operating on Frequencies between 9 KHz and 40 GHz.

ETSI EN 300 440-1 V1.3.1 (2001-07) Electromagnetic compatibility and Radio spectrum Matters (ERM);Short range devices; Radio equipment to be used in the 1 GHz to 40 GHz frequency range.

FCC 47CFR 15C TCB - 47 CFR Part 15 Subpart C Intentional Radiator Certification Test

FCC 47CFR 15B clA - 47 CFR Part 15 Subpart B Unintentional Radiators Class A Verification

UL 60601-1 - UL Standard for Safety Medical Electrical Equipment, Part 1: General Requirements for Safety First Edition.

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