



Vivago CARE 8001 Wrist Units are intended for the elderly, chronically ill and people with special needs. This paper describes the types of wrist units that can be used in institutions, together with Vivago base units and software products. Model 8001 is intended for activity control use and additionally for access control use. Wrist unit have LCD display which shows time, date, day of week, activity, sleep and circadian rhythm. Wrist Unit is measuring wrist movements.

Capability	CARE 8001
Push button for manual alarm	x
Automatic learning of the individual daily rhythm	x
Automatic physiological alarms	x
User in/out of range notification	x
Wrist unit on/off wrist notification	x
Battery empty alarm	x
In charge notification	x
Battery full charged notification	x
Activity curve generation	x
Automatic self-diagnostics	x
Rate of data transmission	Every 20 sec

Technical specification:

Dimensions and weight

- weight	38 g
- diameter of the case	42 mm
- thickness of the watch	16,5 mm
- suitable for wrists measuring	10 to 27 cm in circle

Materials

- strap	PUR (polyurethane), two colors also stretch version available
- case	ABS, two colors: beige and gray
- charging contacts	gold plated brass
- buckle	aluminum

Battery

- rechargeable LiPo battery	
- battery charging period for CARE 8001 model	about 2-4 months
- Few days before battery runs out wrist unit start to show battery symbol in display and it send notification over radio	
- when Clock is put in charger it sends message with radio and when battery is fully charged clock send message with radio	
- there is a external battery charging clip	

Radio transmission

- range 100 meters in free air, 15-20 meters in normal buildings	
<i>Note: massive concrete structures and metal constructions hinder transmission of the signal</i>	
- centre frequency	868.95 MHz
- effective radiated power	under 10 mW
- transmission method	FM

Operating conditions

- operating temperature	+ 10 to + 40 °C
- storage temperature	+ 0 to + 50 °C
- waterproof	IPx7

Light indicator	LED on the wrist unit indication for sending the manual alarm
Other	required power for triggering manual alarm ~6 N (equivalent to 600 g) trigger needs to be pressed 1,5 seconds

Declaration of Conformity

We, Vivago Oy, declare that the products:

- Vivago Personal wellness manager: PWM1 3001, PWM1 3005, PWM1 3400, PWM3001S
- WristCare: Vivago 3001, Vivago 3003, Vivago 3005, Vivago 3007, CARE8001
- Base Unit: ML4001-2, ML4004-2, ML4006-2, ML4012-3, ML4012-4, ML4012-A, ML4012-B, ML4012-3-A, ML4012-4-A, ML4012-A-A, ML4012-B-A
- Device Interface: DI-2, DI-2-B
- Bus Adapter: BA-2

Fulfill the essential and other requirements of directives:

- 2004/108/EC** Directive of the European parliament and of the council, 15 December 2004, on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC
- 99/5/EC** Directive on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity
- 2006/95/EC** Low Voltage Directive (LVD) Directive of the European Parliament and of the Council of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (codified version)
- 94/27/EC** This directive proposes measures to limit the use of nickel in certain objects coming into direct and prolonged contact with the skin, which may cause sensitization of humans to nickel and may lead to allergic reactions.

The products have been tested to conform with the requirements in the following standards and directives:

EN 300 220-1 V2.1.1 (2006-04)	Electromagnetic compatibility and Radio spectrum Matters (ERM)
EN 300 220-2 V2.1.2 (2006-04)	Electromagnetic compatibility and Radio spectrum Matters (ERM)
EN 301 489-1 (2005)	Electromagnetic compatibility and radio spectrum matter (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services
EN 301 489-3 (2002)	Electromagnetic compatibility and radio spectrum matter (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services
ETS 300 683 (1997)	Radio equipment and system (RES); Electromagnetic compatibility (EMC) standard for short-range Devices (SRD) operating on frequencies between 9 kHz and 25 GHz
EN 55024 (1998)	Information technology equipment—Immunity characteristics—Limits and methods of measurement; Amendment A1:2001 to EN 55024:1998
EN 501 30-4 (1995) A2:2003	Alarm systems Part 4: Electromagnetic compatibility- Product family standard: Immunity Requirements. For components of fire, intruder and social alarm systems
EN 50134-1 (2002)	Alarm systems - Social alarm systems -- Part 1: System requirements. (where applicable)
EN 50134-2 (1999)	Alarm systems - Social alarm systems -- Part 2: Trigger devices. (where applicable)
EN 50134-3 (2001)	Alarm systems - Social alarm systems -- Part 3: Local unit and controller. (where applicable)
EN 50134-5 (2004)	Alarm systems - Social alarm systems -- Part 5: Interconnections and communications. (where applicable)
EN 50134-7 (2003)	Alarm systems - Social alarm systems -- Part 7: Application guidelines. (where applicable)
IEC 60950-1 (2006)	Safety of electrical equipment (IECEE)
EN ISO 10993	Biological evaluation of medical devices (Biocompatibility)