Picosys Sdn Bhd ORVA Sensor User Manual

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ORVA SENSOR

Product Description

Online Rehab Virtual Assistant (ORVA) is developed to reduce the barrier-of-entry for Physiotherapy by helping patients rehabilitate and recover at home without having to incur costly bills, travel and waiting times. ORVA achieves its goals with high precision sensors along with smartphone, Internet of Things, Cloud and Artificial Intelligence technologies to automate the capturing, transmission, storage and analytics of patient rehabilitation data.

ORVA is a wearable device designed for non-intrusive, risk-free, patient movement monitoring. ORVA is placed on the limbs of patients to track and record movement in three dimensions. Coordinates and angles are automatically calculated and recorded, sent to the smartphone via Bluetooth Low Energy (BLE), and uploaded to the cloud for review, analysis and subsequent physician-direction recommendations and actions.

General Specifications

Model	ORVA
Version	1.70
Dimension	33mm **x** 23mm **x** 12mm
Weight	8.0g
Operating Period	60 Minutes
Charging Period	**20** Minutes
Charging Power	5.0V, maximum 0.5A (USB charger compatible)
Charging Port	Micro USB
Battery Capacity	3.7V 25mAh
Wireless Module	NRF52832-QFAA
Bluetooth Antenna	MOLEX 47948-0001
Specification	ARM' Cortex"-M4F 32-bit processor running at 64 MHz
	2.4GHz Bluetooth Low Energy v4.2
	3-axis gyroscope
	3-axis accelerometer
	3-axis magnetometer

Environmental and Physical Specifications

Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	0°C to 60°C (32°F to 140°F)
Operating Humidity	10% to 80% RH non-condensing
Storage Humidity	5% to 80% RH non-condensing

Safety Information

- Keep the device away from water, fire, high humidity or hot environments.
- Do not attempt to disassemble, repair, or modify the device.
- Dry sanitization/cleaning only with 99+% isopropyl alcohol (IPA).

⚠️Do not charge the device while using.

⚠️ Connect device with Micro-USB cable to charge the device.

⚠️ Contact the manufacturer if you have any question.

Disposal
User has the choice to give this product to a competent recycling organization or toreturn it to the retailer.

Transportation Instruction

No specific transportation requirement and instruction.
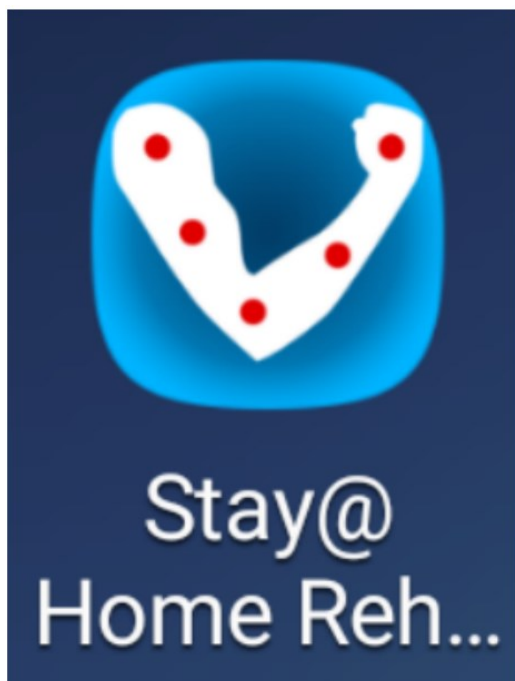
User Guide

1. Insert the straps (sold separately) for the ORVA sensors, as shown below.

2. Turn on all ORVA sensors by moving the switch from left to right (CHECK).
3. Enable Bluetooth on your smartphone. ORVA is Connects over Bluetooth Low Energy (BLE) version 4.0 and above automatically.

4. Download the Stay@home Rehab app from Google's Playstore (ONLY for Android).
5. Launch the Stay@home Rehab app to connect the ORVA sensors.

6. Follow the instructions in the app. When prompted by the app to place the sensors, the USB charging port of the sensor must be pointed toward the user, as shown below

LED Indicators
The states of the sensor is represented by three LEDs, as described in the table below.

State	Red LED	Yellow LED	Orange LED
Disconnected	Alternating Red and Yellow		Off
Connected	Blinking	Off	Off
Sensing	Off	Blinking	Off
Low battery	Blinking		Off
Charging			On

Frequently Asked Question (FAQ)

Q1. Why is the Red/Yellow LED not lit after device is turned ok?

The Red/Yellow LED should be lit when the device is working properly. If the Red/Yellow LED is not lit, please try the following:
A: Ensure the device is fully charge.
A: Ensure the device is turned on.

Q2: Why is the device not connected to Stay@Home Rehab app?

The Yellow LED is blinking when the device is in sensing mode, Yellow LED will be off and Red LED will be blinking when it connected to Stay@Home Rehab app.
A: Ensure the smartphone's Bluetooth is turned on.
A: Ensure the device is within 10m range of the smartphone.

⚠️ **Warning**
This device complies with Part 15 Class B of the FCC Rules. Operation is subject to the following 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.

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

Note: This equipment complies with Class B digital device, pursuant to part 15 of the FCC Rules, that provide

reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of thisequipment in a residential area is unlikely to cause harmful interference.

This product is designed, tested, and classified for their intended electromagnetic environment. These electromagnetic environment classifications generally refer to the following harmonized definitions:
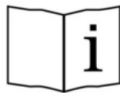
- Class B products are intended for use in residential/domestic environments but may also be used in non-residential/non-domestic environments.

Warranty Statement

PS (PICOSYS SDN BHD) warrants its products against defects in workmanship and materials for a period of 12 months from the date of sale by PS to its initial customer (regardless of any subsequent sale of the products). This warranty is void if the product is misused, altered, tampered with or is installed or used in a manner that is inconsistent with PS's written recommendations, specifications and/or instructions, or fails to perform due to normal wear and tear. PS is not liable for special, indirect, incidental, consequential or other damages including, but not limited to, loss,
damage, personal injury, or any other expense directly or indirectly arising from the use of or inability to use its products either separately or in combination with other products. ALL OTHER WARRANTIES EXPRESS OR IMPLIED, WHETHER ORAL, WRITTEN OR IN ANY OTHER FORM, INCLUDING BUT NOT LIMITED TO A WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED.

The sole and exclusive remedy under this warranty is limited, at the option of PS, to replacement of the defective product or an account credit in the amount of the original selling price. All allegedly defective products must be returned prepaid transportation to PS, together with information describing the product's application and performance, unless otherwise authorized in writing by PS.

Safety Symbols

	Type BF Applied Part		Refer To User Manual For Important Information
	Refer To User Manual Before Use		Do Not Throw Away, Return to Retailer

Technical Support and Contact

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Documents / Resources

Picosys Sdn Bhd ORVA Sensor [pdf] User Manual
2A65I-GC866995, 2A65IGC866995, gc866995, ORVA Sensor, ORVA, Sensor

References

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