



## owon FDS315 Fall Detection Sensor User Guide

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## Welcome

FDS315 Fall Detection Sensor can detect the presence, even if you are asleep or in a stationary posture. It can also detect if the person falls, so you can know the risk in time. It can be tremendously beneficial in nursing homes to monitor and link with other devices to make your home smarter.

This guide will provide you with an overview of the product and help you get through the initial setup to installation.

**Features:**

- ZigBee 3.0
- Discern presence, even if you are in a stationary posture
- Fall detection (only works on single player)
- Identify the location of human activity
- Out-of-bed detection
- Real-time breathing rate detection during sleep
- Extend the range and strengthen ZigBee network communication
- Suitable for both residential and commercial application

**Safety Handling**

**WARNING:** Failure to follow these safety notices could result in fire, electric shock, other injuries, or damage to the Fall Detection Sensor and other property. Read all the safety notices below before using the Fall Detection Sensor.

- Avoid high humidity or extreme temperatures.
- Avoid long exposure to direct sunlight or strong ultraviolet light.
- Do not drop or expose the unit to intense vibration.
- Do not disassemble or try to repair the unit on your own.
- Do not expose the unit or its accessories to flammable liquids, gases or other explosives.
- Do not use harsh chemicals or strong detergents to clean it.
- Do not place it where infants and young children can touch, children should use under parental supervision.
- Do not touch it when powering on to ensure your safety.
- Indoor use only.

**Technical Specifications**

**Wireless Connectivity**

ZigBee	2.4GHz IEEE 802.15.4
ZigBee Profile	ZigBee 3.0
RF Characteristics	<ul style="list-style-type: none"><li>• Operating frequency: 2.4GHz</li><li>• Internal PCB Antenna</li><li>• Range outdoor: 100m (Open area)</li></ul>

## Physical Specifications

Operating Voltage	Micro-USB
Detector	60GHz Radar
Detection Range	<ul style="list-style-type: none"><li>• Occupancy: 4*6m</li><li>• Fall: 4*4m</li></ul>
Hanging height	1.6~1.7m
Operating environment	<ul style="list-style-type: none"><li>• Temperature: -10 °C~+50 °C</li><li>• Humidity: ≤ 90% non-condensing</li></ul>
Dimension	86(L) x 86(W) x 37(H) mm
Mounting Type	Wall mount

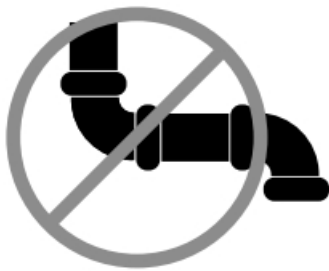
## Installation

### Important safety information!

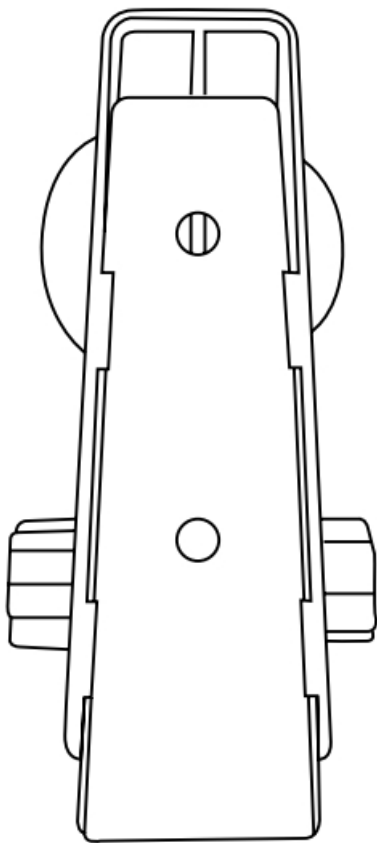
- Do not touch the terminals of the device while testing.
- Turn off all the power supply for this equipment before installing.
- Make sure that the power supply is off before connecting or disconnecting it to an auxiliary device.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors and covers before applying power to the equipment.

### Before installing, the location should be:

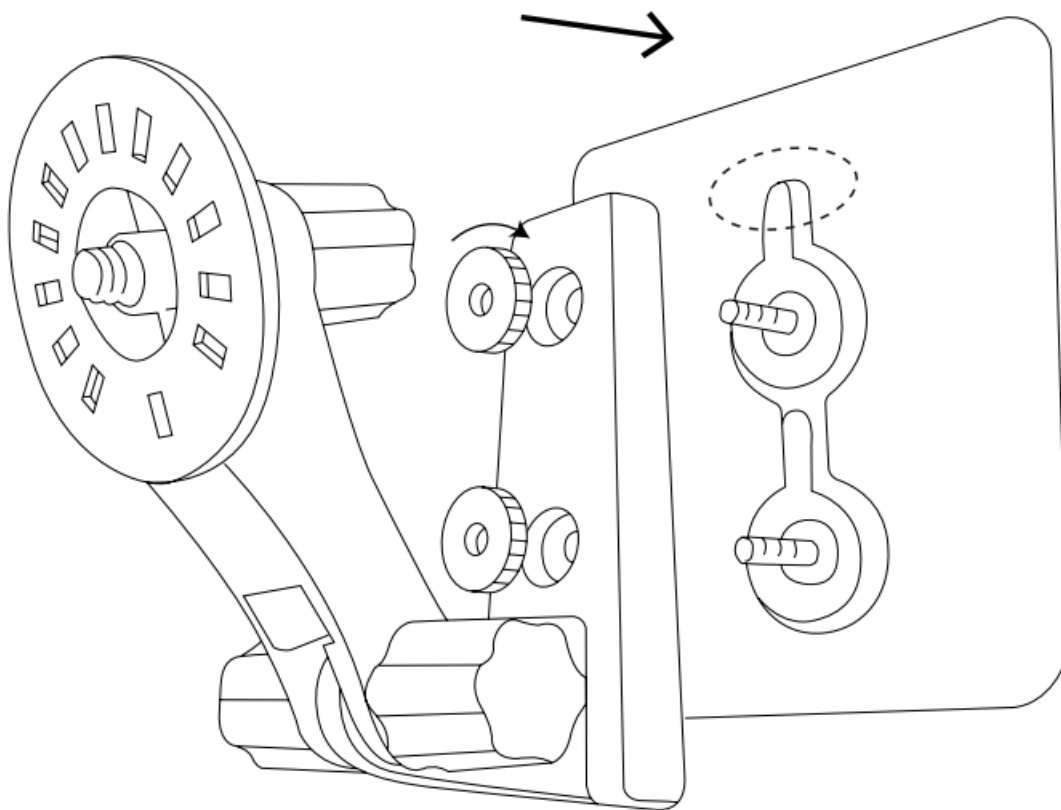
- Avoid objects that generate high temperature, and keep a distance of more than 1M from heating devices (bathroom, radiator, etc.)
- To avoid occlusion, the distance between the device and other furniture such as cabinets on the same side is greater than 1M.
- Avoid objects that will block the monitoring range.
- Far away from pets, ventilation ducts, fire-fighting ducts, drainage ducts, mechanical vibration, large metal equipment, or places with vibrating and swinging objects.
- More than 4m away from other radar equipment



1. Install the back cover of the wall stand as below

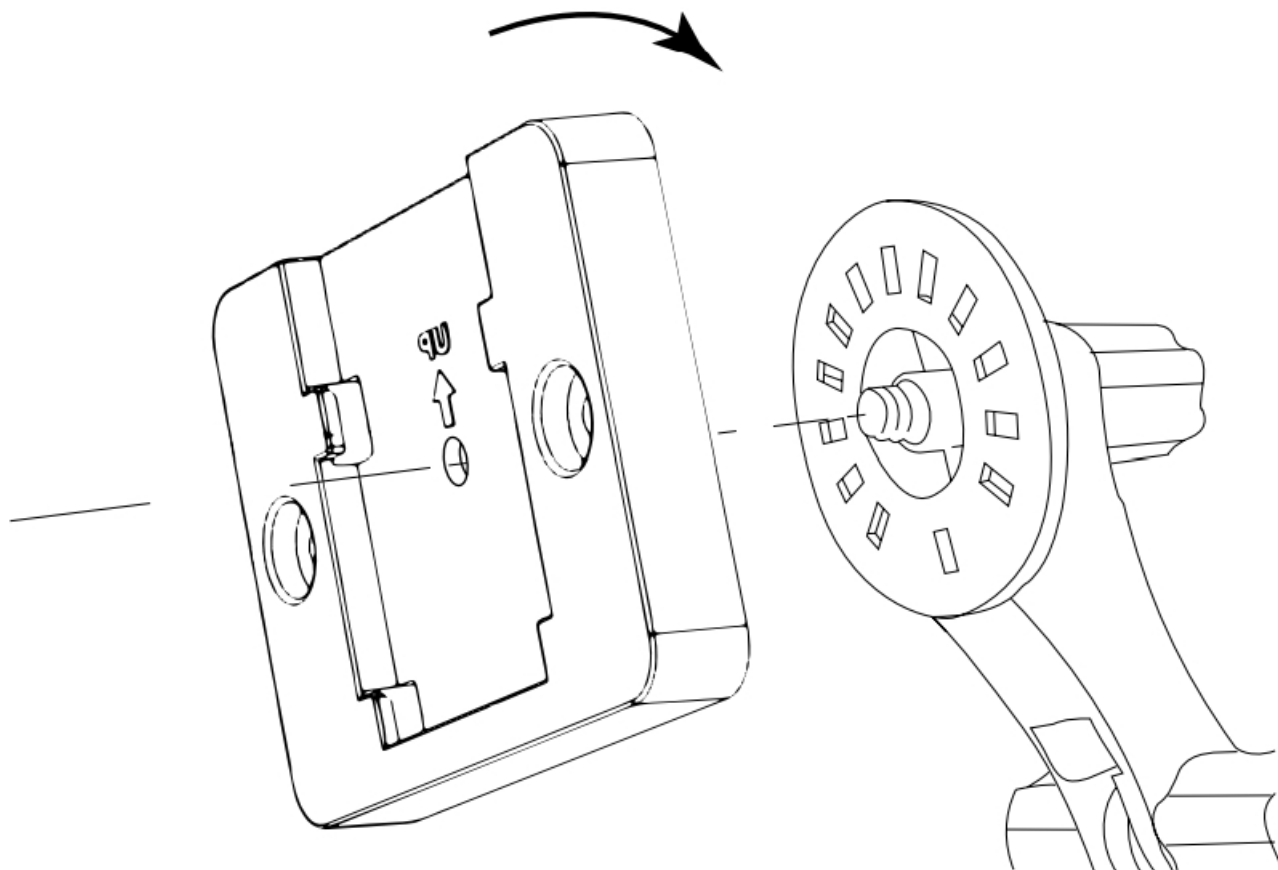


2. Align the wall stand with the wall sticker and screw them together using gear.

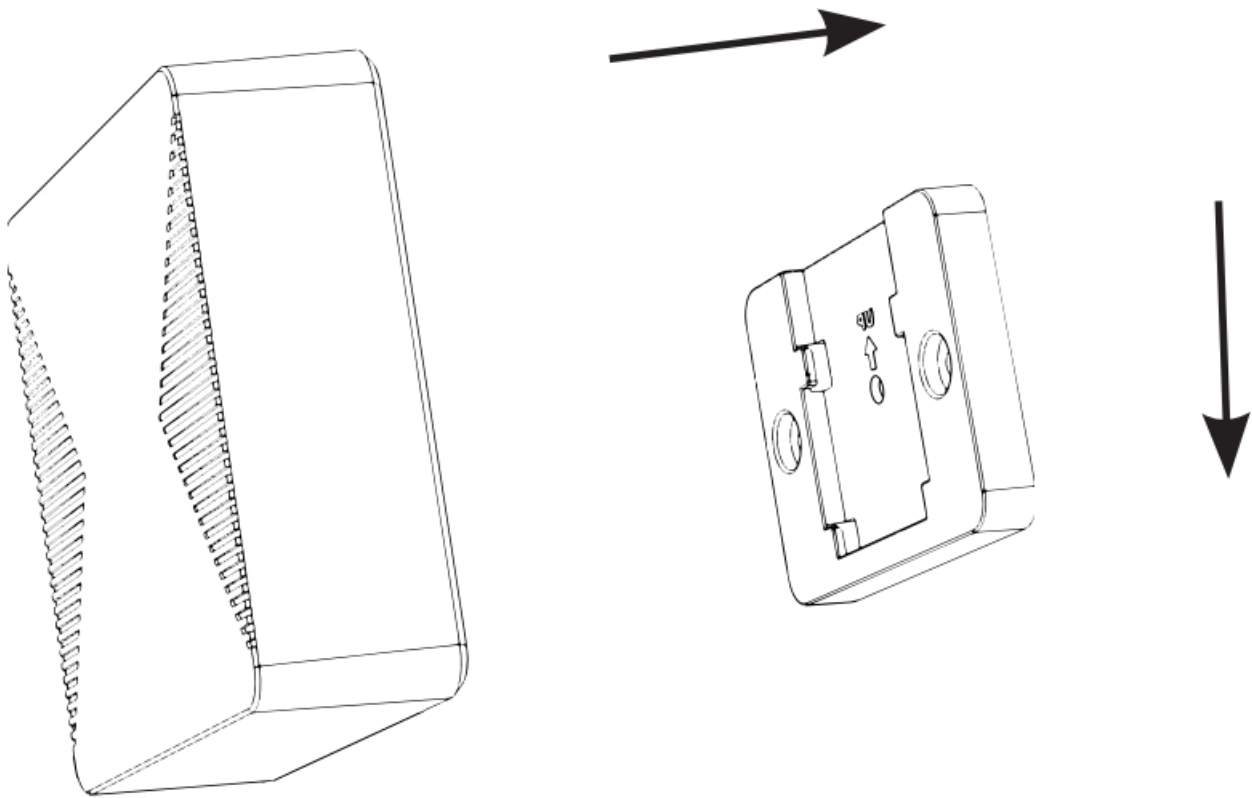


**Note:** The arrow on the wall sticker need to point up.

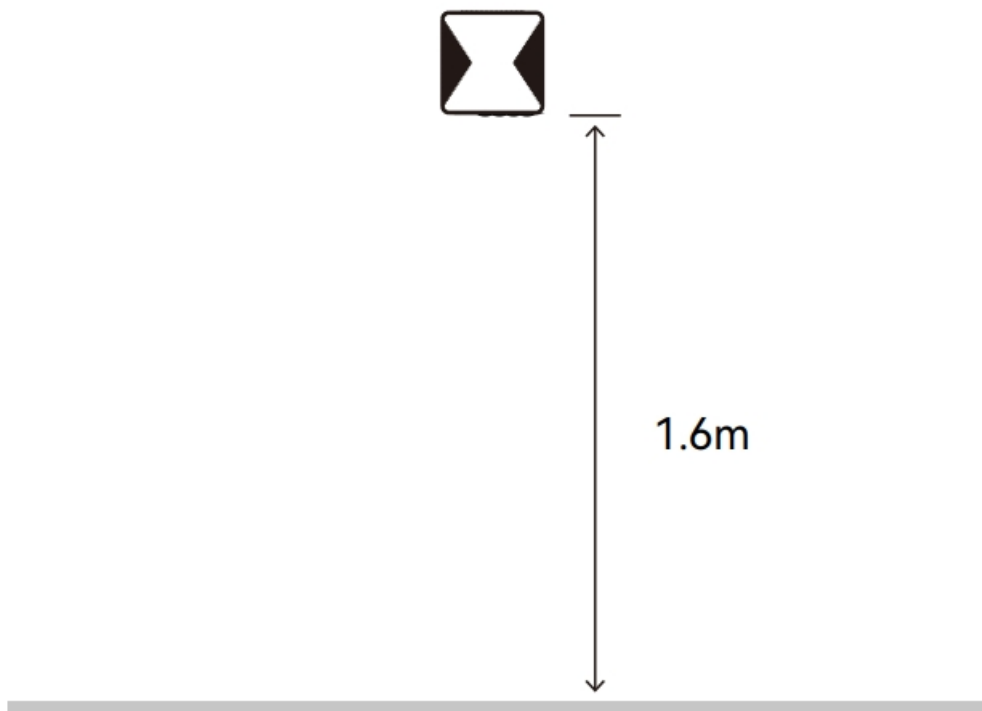
3. Screw the mounting bracket into the wall stand.



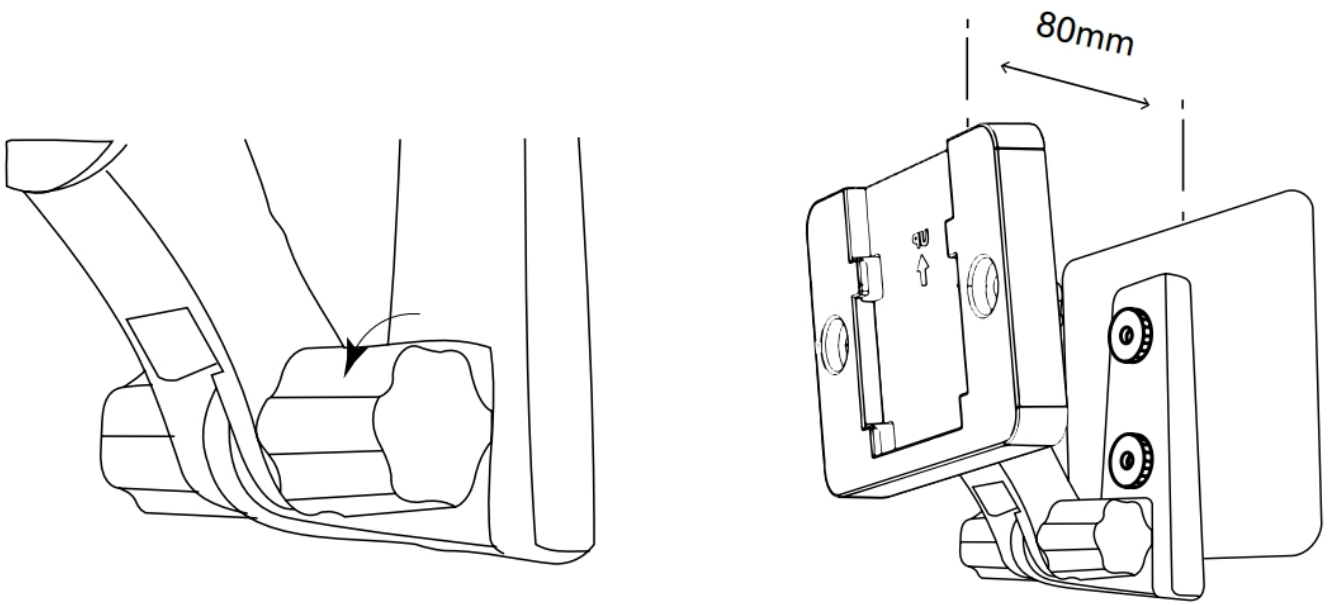
4. Locate the hooks of the mounting bracket and line up the hooks with the mounting holes on the sensor, then fit the hooks into the mounting holes as below picture.



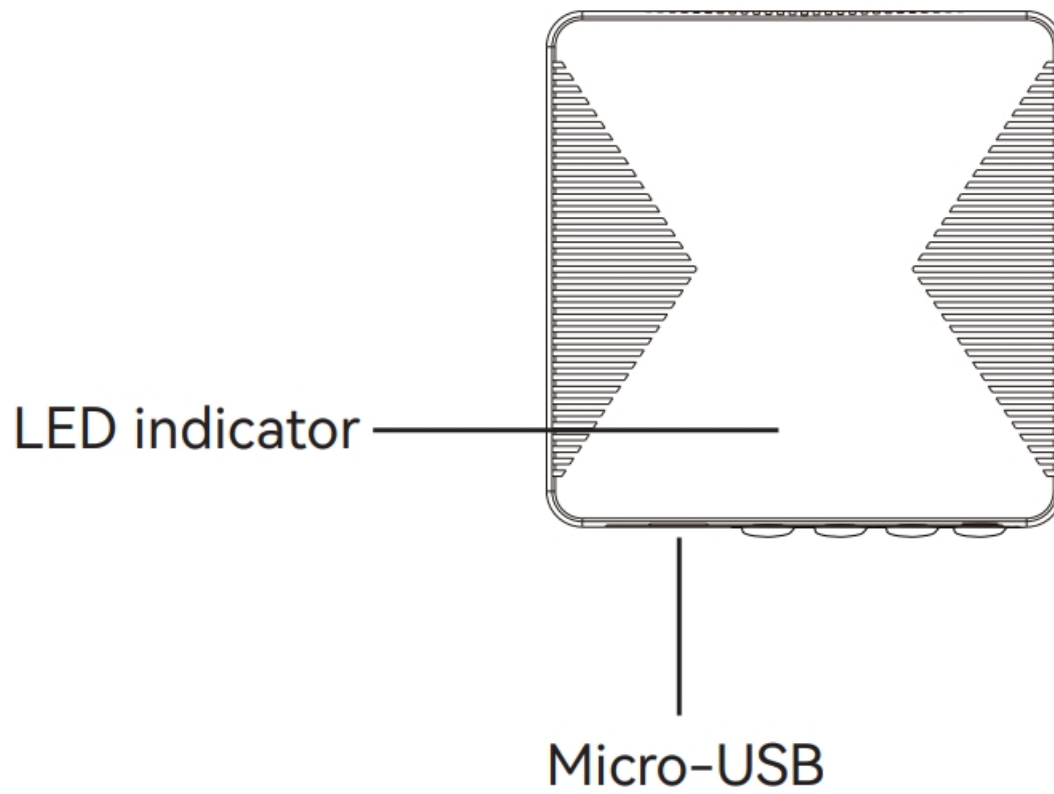
5. The recommended height for installing is 1.6M, which can be adjusted according to the reality (adjustment range should not exceed +/-10CM). And wall stickers are not suitable for sticking on lime wall, brick, cement wall and wallpaper.



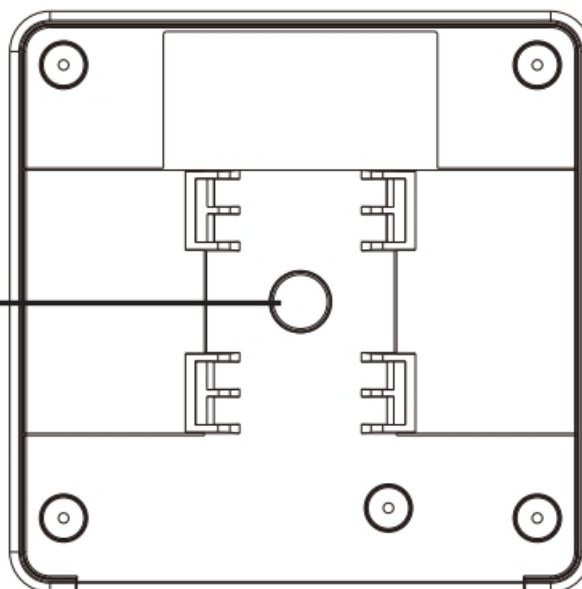
6. When using the sleep monitoring function, the sensor should be installed on the wall at the head of the bed. So please find a suitable location when installing.
7. Peel off the wall sticker and attach the sensor to the wall. Do not install the sensor on the same wall side as the door. After the installation is completed, please check whether it is firm and cannot be shaken.
8. Gently adjust the gear adjuster to feel the gear of the wall stand.  
Adjust the gear of the wall stand to the first gear (about 20 degrees) and make sure the stand is open about 80mm. After that, tighten the gear adjuster.



**Get to know your device**



## Reset Button



### Reset Button

Reset: Press and hold the reset button for 10 seconds until the LED light flashes red three times.

### LED indicator

The status gives the following information:

LED Color	Status	What it means
No light	/	No presence detected
Green	Always-on	Presence detected
	Flashing	Device has not joined a ZigBee network and is ready to join the gateway
Red	Flashing	Falling detected

### Note:

It will take about 10 minutes to let the sensor's status changes from from occupied to unoccupied if you are out of the detect range.

## Configure Network

### Before starting, you will need:

- A ZigBee Gateway.

### Adding to the gateway's network


Follow the steps below to join sensor to the gateway's network:

1. Power on the sensor through Micro-USB, the LED indicator will start flashing green, which means it is ready to join the network. If not, please reset it.
2. Set your gateway to permit joining.



3. The sensor will join the gateway’s network automatically and the LED indicator stops flashing green when successfully joined.

**Documents / Resources**

 <p>FDS315 Fall Detection Sensor Quick Start Guide</p>	<p><a href="#">owon FDS315 Fall Detection Sensor</a> [pdf] User Guide FDS315, Fall Detection Sensor, FDS315 Fall Detection Sensor</p>
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Manuals+.