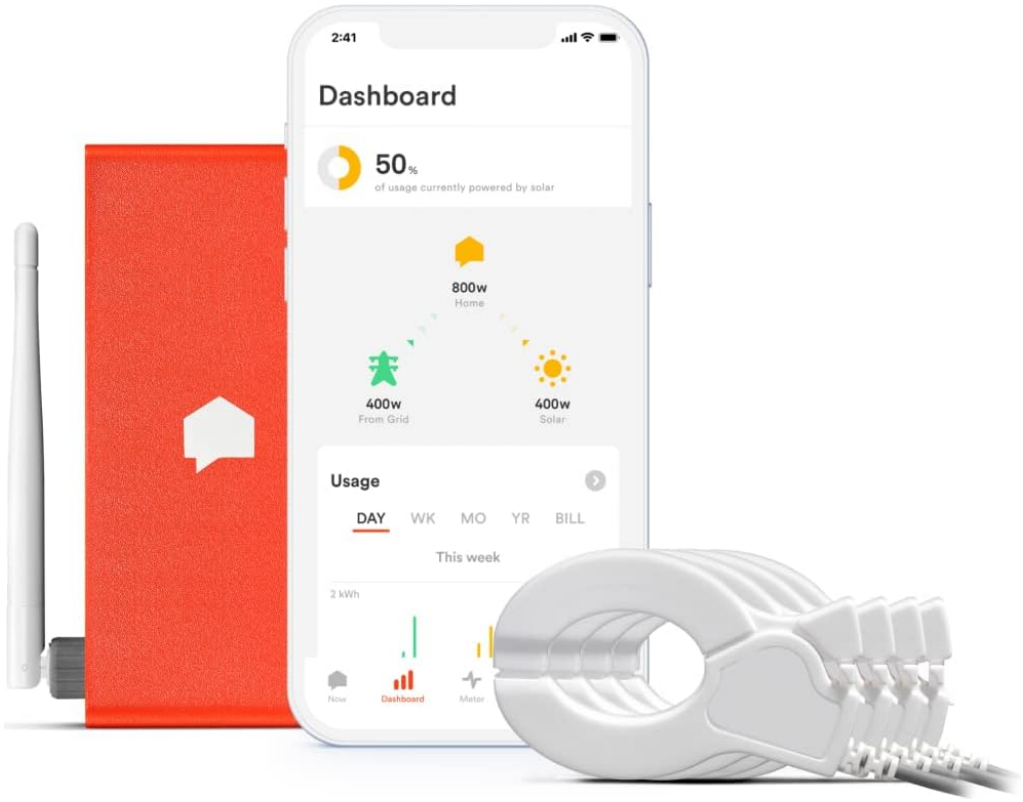
Sense 12001 Electricity Usage and Solar Production Tracker Instruction Manual

Contents

Sense 12001 Electricity Usage and Solar Production Tracker



Warning

Sense is connected to dangerous voltages. Improper use or installation can be dangerous or even fatal. Please make sure to follow these guidelines:

1. The installation should be conducted by a qualified professional, according to local electrical codes.
2. Personal protective equipment should be worn when installing a current sensor on a conductor exposing hazardous live voltages. If the current sensors are used in a manner other than specified, the safety protection provided may be impaired.
3. Do not try to open the Sense monitor, touch any internal parts, or try to repair it.
4. If you believe the monitor, sensors, or cables may have been damaged, do not try to use them.
5. Use the Sense monitor only in the United States and Canada, and only with a 60Hz 120V/240V split phase system.
6. Install the Sense monitor where it will not be exposed to direct sunlight or extremely low or high temperatures. No exposure to water. RH < 90%; Elevation < 3000 meters; Temperature 0 – 50°C.

Legal Information

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. Operation is subject to these conditions:

1. It may not cause harmful interference.
2. It must accept any interference received, including interference that may cause undesired operation. If it is not installed and used as per the instructions, it may cause interference which is harmful to wireless communications. There is no guarantee that interference will not occur in a particular installation. If it does cause interference we recommend: reorienting or relocating the receiving antenna, or increasing the separation between the device and the receiver.

3. Patents: sense.com/patents

Questions?

- Contact help.sense.com.
- Designed by Sense in Cambridge, MA ©2018 Sense Labs, Inc.

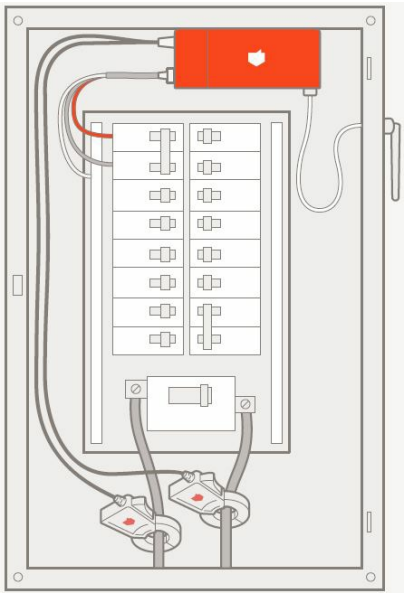
Certified to CSA STD C22.2 No. 61010-1

Conforms to UL STD 61010-1

Conforms to UL STD 61010-2-032

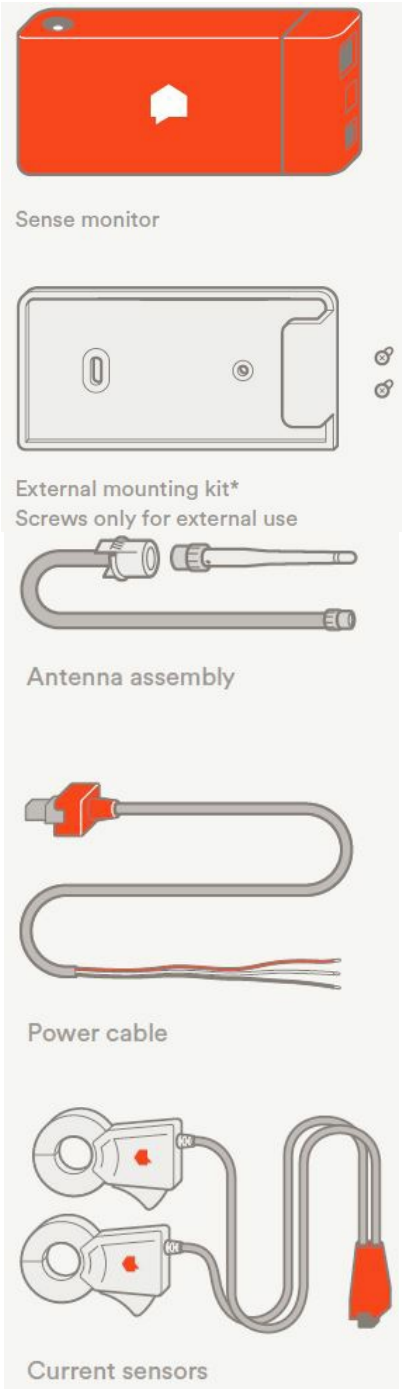
Conforms to CAN ICES-3(B)/NMB-3(B)

Installation



Instructions

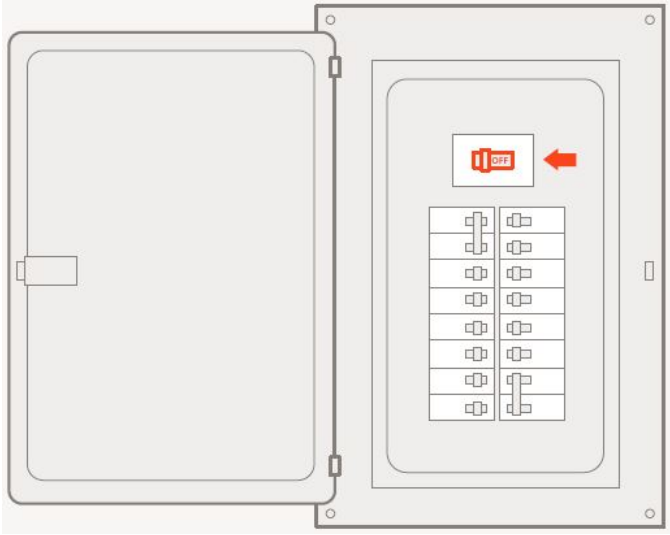
- Install the Sense monitor
- Install app at sense.com/app
- Tap “Get Started” in the app
- Use the app to complete setup



1. **Turn off power**

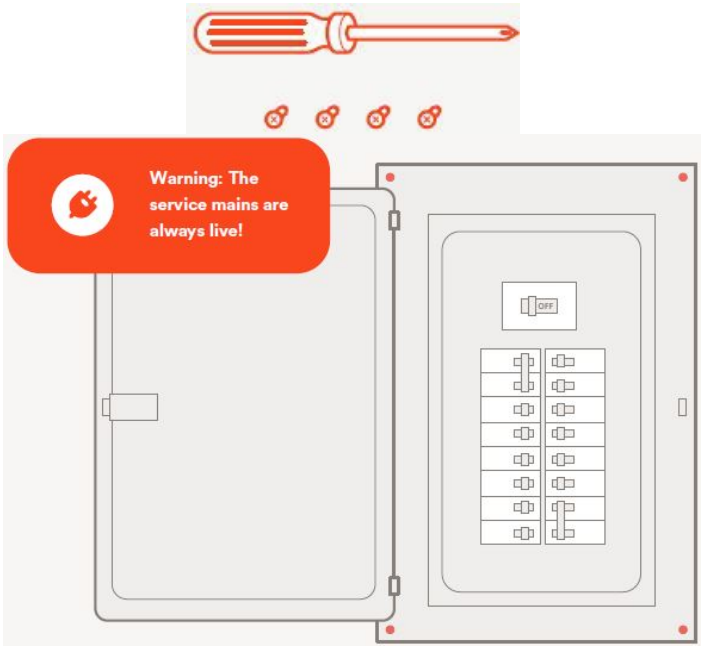
   Open your electrical panel and turn off your main breaker. This helps protect you during installation. Don’t forget your flashlight!

   If you have solar, turn off your inverter. Refer to the solar installation guide for setup instructions.



2. **Remove panel cover**

   Remove the screws securing the panel cover to access the circuit breakers.

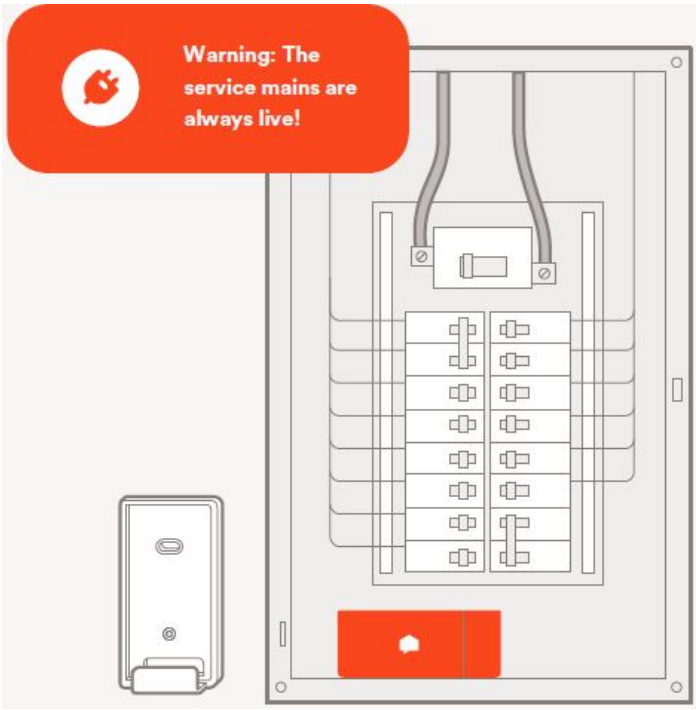


3. **Find a spot for your Sense**

   The Sense monitor is designed to fit within your main panel. Find an open spot that works for you.

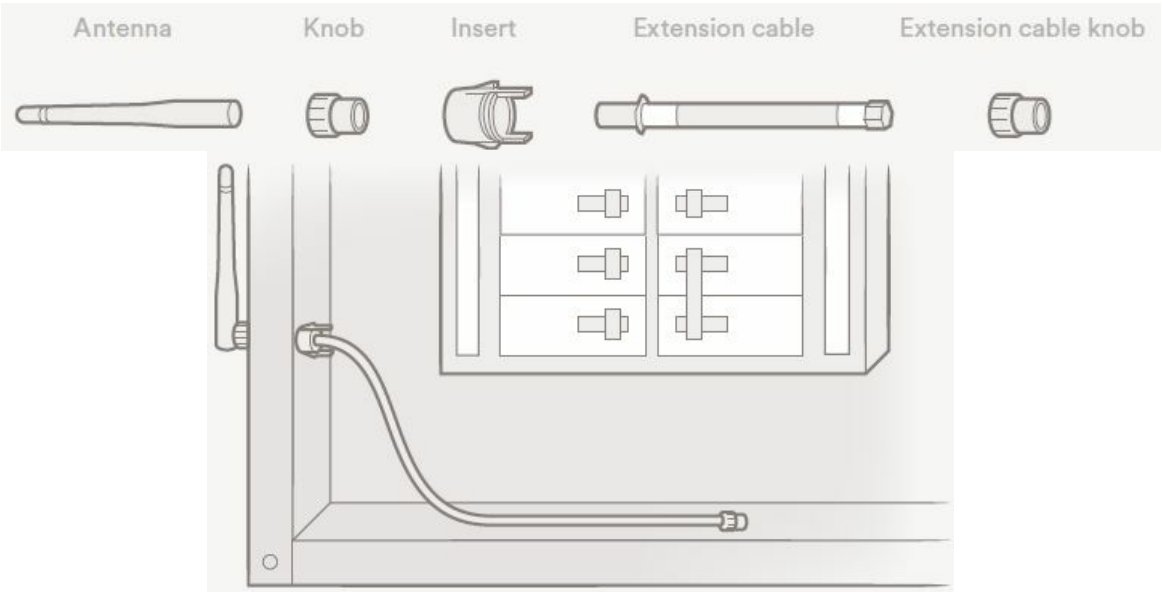
   What if there is no room?

   Use the mounting bracket provided. See more installation configurations at help.sense.com.



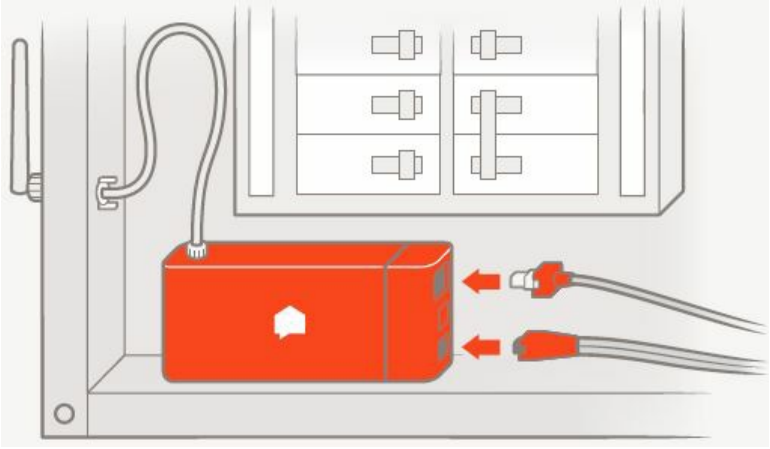
4. **Install the antenna**

   Using the back of a screwdriver, punch out the knockout cover in the electrical panel. Then, insert the antenna.



5. **Connect**

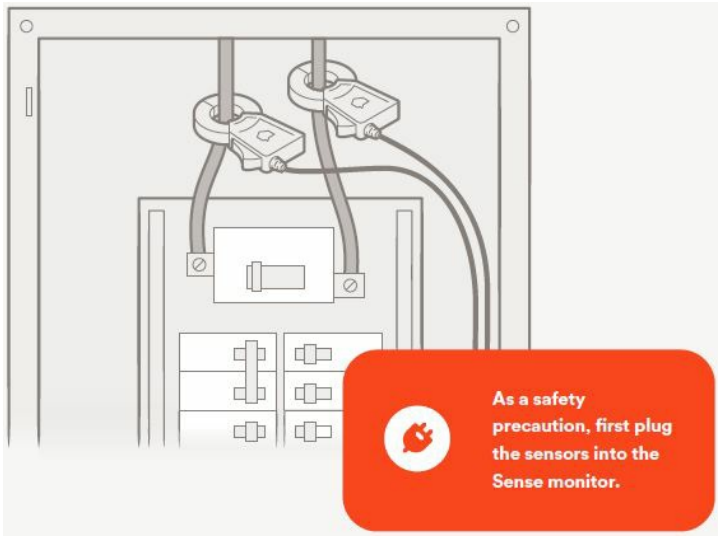
   Connect the power cable, current sensors, and antenna to the Sense monitor. Be sure to insert the sensor into the outer port. The middle port is for solar sensors.



6. **Connect the current sensors**

   Clamp the sensors around the service mains so that both labels are facing the same direction. The direction of

the sensors does not matter, as long as they are the same.

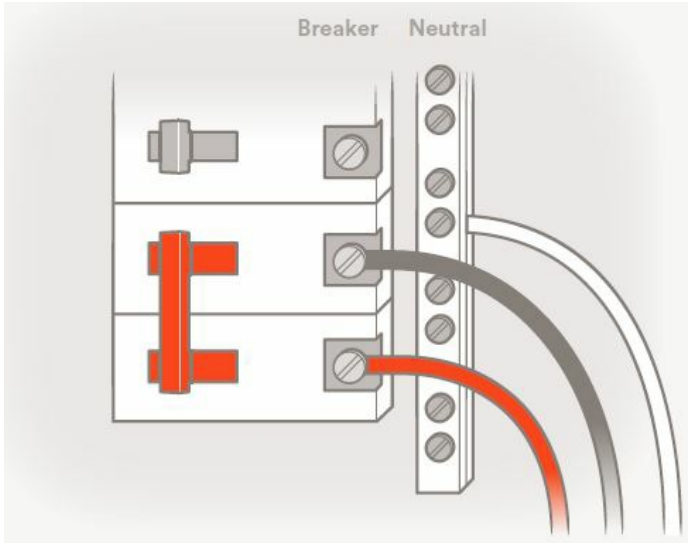


7. **Connect the power**

   Connect the black wire and the red wire to an empty 240V breaker and the white wire to the neutral bus bar. Sense draws less than 0.1A, so you should use the smallest 240V breaker available for your panel.

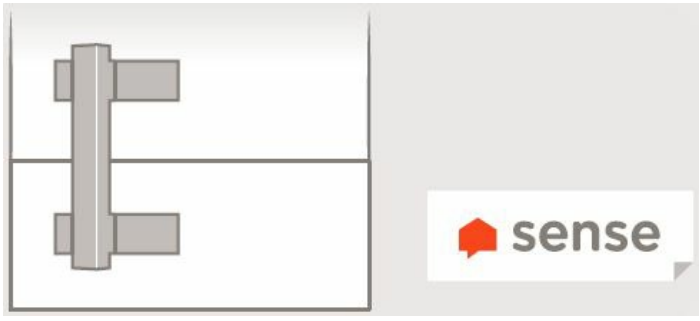
   Don’t have an empty breaker?

   Connect to an existing or add a new 240V breaker. Do not use a tandem breaker, unless it is 240V. Learn more at help.sense.com.



8. **Close the panel**

   Replace the panel cover carefully to ensure that there is no pressure on the sensor clamps that would cause them to open. Label the Sense breakers with the sticker.

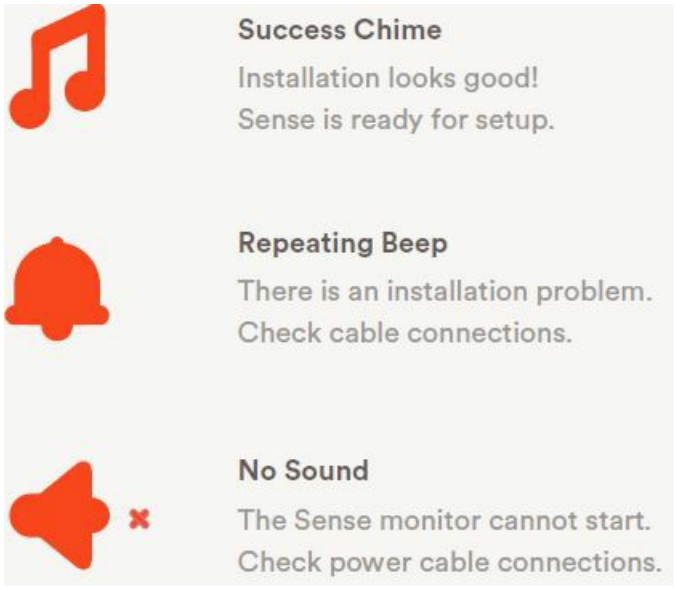


Doing electrical work?

Reattach each sensor to the same service main as before to avoid disrupting device detection.

9. **Turn power on, wait for chime**

   Once the panel is closed, turn the main breaker back on, and listen for one of the sounds listed below. It will take about a minute before hearing a sound. Visit help.sense.com for sound samples and troubleshooting information.



   Moving? Take Sense with you.

   Using the app, reset your data. Follow all safety precautions. Turn off power to the main breaker. Disconnect the sensors from the service mains. Disconnect all cables from the monitor. Remove the antenna and disconnect the power cable.

10. **Use the app to complete setup**

    Install the Sense app by visiting sense.com/app. Click “Get Started” and follow the on-screen instructions. The app will guide you through the Wi-Fi setup and account creation process.

Caution: The Sense monitor should be installed by a qualified professional. Before installing, please read and review the safety warnings.

Technical Specifications

Sense is a home energy monitoring device. It is used to measure the current and voltage on the service mains. It monitors two phases of 110/120VAC. If installed outside, it must be kept dry and within specified temperature ranges.

Current Sensor Specifications

- CAT III 300V 200A max
- Cable length: 46”
- Inside diameter: 0.95” May be used on uninsulated conductors

Monitor Specifications

- **Compatibility:** 120VAC (90v-130v)
- **Power Use:** < 5 Watts, 0.1 amps
- **Wi-Fi:** 2.4 GHz 802.11b/g/n
- **Size:** 137mm x 66mm x 32mm
- **Weight:** 200g

Climate Specifications

- **RH <90%;** IPx0 rating
- **Temperature:** 0-50ºC
- **Elevation** < 3,000m

See what’s up. Know what’s on.™

FAQs

What is the main purpose of the Sense 12001 Tracker?

The Sense 12001 Tracker helps you monitor and understand your home's energy use and solar production. It offers real-time insights and can help you save energy and money.

Where is this device manufactured?

The Sense 12001 is manufactured in Mexico.

Is it available outside the United States and Canada?

No, Sense is not currently available or compatible outside the United States and Canada.

What kind of insights does Sense offer?

Sense provides real-time data on energy production and usage, identifies patterns in your energy use, helps you avoid energy-wasting disasters by setting custom notifications, and supports Time-of-Use rate plans for more accurate billing.

Can Sense help me to use my solar energy more efficiently?

Yes, Sense allows you to compare your solar production and energy consumption side-by-side, helping you maximize your solar energy use.

Can Sense alert me about critical devices?

Yes, you can set custom notifications for critical devices like sump pumps and well pumps.

Is it safe to use?

Yes, Sense's components and system have been designed and ETL/Intertek certified for safe installation and operation inside the electrical panel.

What devices is it compatible with?

It's compatible with routers, cellular phones, and most solar systems that connect directly to the main electrical panel.

What is included in the package?

The package includes a Sense monitor, a power cable, two sets of current sensors (4 pieces), a mounting bracket, and an antenna.

What is the power source for the Sense 12001?

It is hard-wired and operates at a wattage of 10 watts.

Are batteries required?

No, batteries are not required for this device.

Does Sense support machine learning?

Yes, Sense uses machine learning to detect and recognize most appliances and other devices in your home that use more than 60 watts.

Video- Product Overview

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