

# Frequently Asked Questions:

## When will SimplBox become available to install?

For a detailed timeline of SimplBox product launch, please click below to go to the download venter and click on the button "SimplBox Launch Timeline":

## https://simplglobal.com/download-center/

#### How do I size and price a system?

All SimplBox sizing and pricing information is built into our S2P2 system which is available to anyone that is registered. Registration is free and available to anyone interested. To register, go to:

## https://simplglobal.com/login

In addition to sizing and pricing your system, you would be able to calculate cash flow and payback by stating certain assumptions.

#### What is the most basic installation?

A single SimplBox, together with a single microinverter and a single solar panel. This constitutes the most basic installation. The first SimplBox must be equipped to be a master unit. A master unit is identical to the slave units and is in fact the first slave unit as well. When you order the system, the shipment would always include at least one master unit.

#### How do I get a demo?

Two demo systems are continuously up and running and available to registered users. As stated above, registration is free and available to anyone interested.

## What is the most expedient way of getting answers to my questions?

We recommend that you use our chat line. However, email and phone work as well.

## Do you sell directly to homeowners?

Unfortunately, we do not sell directly to homeowners. You must be a Certified Installer Partner (CIP) to purchase our products. Please click on the following and press on the button "How to Become a Certified Installation Partner":

#### https://simplqlobal.com/download-center/

## Can SimplBox charge its batteries from the Grid?

Yes, if used in conjunction with inverters that are bidirectional otherwise, the batteries are charged strictly from the attached solar panel. Most customers find this to be an advantage as it guarantees that the energy storage portion of the cost qualifies for investment tax credit (ITC).

#### Why was SimplBox designed without an AC charger?

IRS rules could disqualify systems that charge their batteries from the grid. To make sure that SimplBox systems are eligible for 30% ITC and MACRS incentives, Simpl Global designed the system to be charged exclusively using solar energy.

#### Does SimplBox work with microinverters?

Yes, SimplBox is designed to work with most microinverters and DC Optimizers. In addition, SimplBox is designed to be connected to string inverters. Ask an application engineer at Simpl Global for more details.

#### Is SimplBox suitable for residential or commercial applications?

SimplBox is designed as a fully scalable product. It may be used in small residential systems with a small number of solar panels to very large, commercial, industrial and utility-scale system with thousands of solar panels.

## Is SimplBox suitable for off-grid applications?

The energy stored in SimplBox batteries may be used by an off-grid system if connected to grid-forming microinverters or string inverters.

## How do you install SimplBox?

SimplBox is installed under the solar panel, on the same rail, immediately before the solar panel is laid down on the rail system.

## How about the added weight on the roof?

SimplBox-15 adds (2) lbs. per square foot of roof space. Typical home is designed to withstand 15 lbs./sq. ft.

#### How do I decide which SimplBox to use?

SimplBox comes in three different models: SimplBox-05 ( $\frac{1}{2}$  kWh), SimplBox-10 (1 kWh) and SimplBox-15 (1.5 kWh.)

All models are compatible with 60-cell to 120-cell solar panels. Most of our testing to-date has been focused on 60 and 72-cell modules. If you are interested in using PV panels with larger number of cells, please contact your Simpl applications engineers.

In most TOU applications, SimplBox-15 is the right choice as it maximizes energy density and is the most cost-effective.

For demand shaving applications, the SimplBox-10 is the most effective.

In ramp control applications, SimplBox-05 is the most cost effective.

Before selecting the right model, please consult with your Simpl Global Applications Engineers.

## Is SimplBox certified according to UL safety standards?

Yes, SimplBox is in the process of being certified to the UL 1973, UL 9540 and UL 1642 and CSA standards. We expect this process to be completed by the end of 2019.

#### What is the battery life expectancy?

The information regarding the life expectancy of the batteries is contained in the Limited Warranty document which is downloadable from the download center at: https://simplglobal.com/download-center/

## Describe SimplBox's control and communications methodology?

SimplBox controls were designed around a multi-layer control strategy that is part autonomous and part controlled by the system interface.

Each system consists of a master unit and up to 1024 slave units. The slave units form a mesh with each other that could be as deep as 6 layers and through this spontaneously formed mesh they all connect to the master unit.

The master unit is continuously informing each of the slave units about the total number of SimplBoxes available and active. This is how each slave unit, autonomously decide how to contribute to the system's overall mission.

For example if the mission for the system is set to shave 10 kW of demand from the consumption curve and there is a total of 100 units in the system, each slave units would then know that their individual mission is to shave 100 Watts from the demand curve.

The overall mission type could be one of the following:

- Demand shaving
- Time-of-Use (TOU) energy shifting
- Self-supply by limiting the grid export to zero or any other arbitrary maximum
- PV smoothing provides the same solar energy to the grid but does so in a smooth manner

This overall mission is set from the SimplWeb user interface. The user, through the use of SimplWeb app, would access and adjust specific control capabilities and parameters. These parameters are communicated to Simpl's backend through a set of APIs.

The system's master unit accesses the backend and obtains new and updated system parameters and serves this information to all the slave units in the system.