

SP2000 Model Explanation

The SP2000's Model is a series of characters like **PxUxMxSx** that can be displayed on its LCD screen. The model settings regulate SP2000's performance, customer may need to change it after SP2000 system installation finished.

1. SP2000 Model

The model is formed by 4 segments, as follows:

Px	Ux	Mx	Sx
Reserved, default set to PF .	User's battery type. Set to 0 (zero): Lead acid battery; Set to 1 : DAFON Lithium Ion battery.	Battery capacity manage / maximum charge current set.	Working Status. Default set to 0 (zero).

Table 1. SP2000 Model

Mx explanation:

Growatt only offer lithium Ion battery for SP2000 system, customer can equip lead-acid battery themselves. The customized lead-acid battery may vary from capacity. The charge current can be changed following to the capacity of battery equipped.

Note: for lead-acid battery, it is better the charge current do not exceed 0.3C. (C stand for battery's Capacity. For example, for 80AH-99AH battery, the charge current charge current can between 24A (80*0.3) to 30A (100*0.3), we set 25A as default).

For lithium Ion battery, the charge current can reach to more than 0.5C. The DAFON lithium Ion battery we offered is 95.4AH, thus we didn't limit the maximum charge current.

Mx value	Meaning (Capacity range / maximum charge current settings)
0	80AH-99AH / maximum charge current 25A
1	100AH-119AH / maximum charge current 30A
2	119AH-145AH / maximum charge current 36A
3	150AH and above / maximum charge current 45A

Table 2. Mx settings

2. The factory default setting

When customer place SP2000 order, Growatt offer 2 options: order SP2000 only, or order SP2000 with DAFON lithium Ion battery.

The 2 different version of SP2000 have different default Model settings in factory.

1. SP2000 without battery (customer equip lead-acid battery): **PFU0M3S0**.

This default Model setting shows the maximum charge current is 45A, it is not good for lead-acid batteries below 150AH. As the maximum charge current would be more than 0.3C, it is harmful to lead-acid batteries.

Thus, it is necessary to change the Model if lead-acid battery equipped is below 150AH.

SP2000's maximum charge power is 2000w, corresponding to the maximum charge current $2000\text{w} / 48\text{v} = 41.7\text{A}$. For SP2000 to charge battery with its maximum charge power, Growatt suggest customer to equip at least 150 AH lead-acid battery for SP2000 (Instead of changing the Model to decrease the charge current).

2. SP2000 with DARFON battery: **PFU1M3S0**.

For lithium Ion battery, the charge current can reach to more than 0.5C. The DARFON lithium Ion battery we offered is 95.4AH (correspond to maximum charge current $95.4 \times 0.5 = 47.7\text{A}$), thus we didn't limit the maximum charge current. For DARFON battery, the Mx value is meaningless.

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