# 离网机本地更新指引

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V1.0

## 一. 更新前准备(Preparation)

需要更新程序的逆变器。
The inverter to be updated.

2.PC(XP/WIN7/WIN10/WIN11 系统)。

PC (XP/WIN7/WIN10/WIN11) version.

3. 逆变器整机附件中的 USB 数据线。

USB cable from the SPF package.

4. 更新所需的软件、程序、及通讯板驱动程序(均由售后提供)。

The necessary firmware for the inverter, updating software, and the driver for the communication board (please contact after-sale services for the files).

5. 确认通讯板 USB 芯片型号:

目前离网机通讯板使用两种 USB 芯片,分别是 CP2102N 或 XR21V1410,明确芯片型号正确 安装驱动后机器才能与电脑建立通信,芯片型号通过通讯板外观比对即可判别,如图所示: Confirm the communication board chip version:

There are two types of USB chips used for the SPF off grid system, namely CP2102N and XR21V1410. After confirming which type of chip the communication board has according to the image below, please select the respective COM driver to set up the communication between the inverter and the PC. The different types of chips are shown below.



## 二. 设置更新环境(Set up updating environment)

1. 逆变器处于开机状态。

Keep inverter powered on.

2. 正确安装通讯板上 USB 芯片对应的驱动程序(建议手动安装),安装方法如下: Install the correct USB driver to read the inverter. It is recommended to install the driver manually, as shown below:



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 如果更新 MPPT 板程序(更新逆变器控制板程序或通讯板程序请跳过此步骤), PV 端必须 接入符合输入范围的 PV 电压,开机后确认逆变器显示屏出现太阳能板图标后进行下一步 操作。

**Please skip this step if you are updating the control board or communication board**. Only if you are to update the MPPT firmware, should you connect the PV input with appropriate PV voltage. Turn on the inverter, and confirm that the PV panel icon is shown. Only continue with the update for MPPT board when the PV panel icon is displayed on the LCD.



## 三. 更新步骤(Update Procedure)

 移除其他非必要 USB 设备,将逆变器与 PC 通过 USB 线材连接,确认在 PC 设备管理器中端 口子目录中显示出正确的 USB 芯片型号及端口。如驱动异常则需更新对应的驱动程序,直 至 USB 驱动芯片型号正确显示。如下图:

Remove any other unnecessary USB devices. Connect the inverter and the PC using the provided USB cable. Confirm that the COM port shows the correct chip driver version and port number. If incorrect driver is used, the PC might not be able to read the inverter. Please install the correct communication driver. The corresponding chip drivers are shown below:

驱动芯片型号: XR21V1410 Chip version: XR21V1410



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#### 2. 打开程序更新软件 "IPS TOOL"。

Open the update software "IPS TOOL" .



- 选择端口(设备管理器中 USB 芯片对应的端口) --->选择烧录程序--->打开端口(连接成 功会显示时间)--->点击 "FLASH"开始更新,直至更新结束(时间稍长,请务必等待三 个进度条显示 100%完成,更新途中请勿进行其他操作,否则更新失败有可能无法开机)。
  When the IPS Tool software is open, follow the steps below to proceed with update: → Choose the correct COM Port (the COM Port corresponding the respective driver shown in the device manager).
  - $\rightarrow$  Select the correct firmware to be updated.
  - $\rightarrow$  Open port(when successfully opened, it will show the time).

 $\rightarrow$  Click on "FLASH" to start updating. Please wait until update is finished. (Note: it is important to wait for all three progress bar, Erase, Program, and Verify, to load to 100%. Please do not perform other actions on the inverter. Otherwise, it would cause firmware corruption and damage the inverter).

ISP TOOL V4.30-2	0210426					-	οx	6
COM. SETTING	1	ODD/EVEN	None		UNCTION Opened	B Exit	Test	
BAUD. 9600	×	DATA BITS	8		ost O Second	S		
STOP BIT		3033/5	7 20:13:02			IMS320	128027	
TMS320F28XX FLASH	HEX2BIN		0					
FILE				_		<u>4</u>		
AP Code path:	E:\TMS320F	28027_sk002				DI A	CII	
						FLA	ы	
Flash file si	ze: 49152		_	_				L 1
Flash file si	ze: 49152							
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Flash file si Flash file siz Send: Start! Send: Start! Send: Start!	re: 49152 e: 49152	• 10	01 10 04 38 00 1D 43 52 43 52	02 C1 35 01 43 52 43 52	10 04 38 00 43 52 43 52	02 04 00 00	00 01 02	
Flash file si Flash file siz Send: Start! Send: Start! Send: Start! Get: Cl Send: Start!	re: 49152 e: 49152	4 <u>U</u> 4	01 10 04 38 00 1D 43 52 43 52	02 C1 35 01 43 52 43 52	10 04 38 00 43 52 43 52	02 04 00 00	00 01 02	
Flash file si Flash file siz Send: Start! Send: Start! Get: C1 Send: Block2	re: 49152 e: 49152	* ( <u>m</u> ) *	01 10 04 38 00 1D 43 52 43 52	02 C1 35 01 43 52 43 52	10 04 38 00 43 52 43 52	02 04 00 00	00 01 02	2
Flash file si Flash file siz Send: Start! Send: Start! Get: Cl Send: Block2 Error Becover	e: 49152 e: 49152	r Ere	01 10 04 38 00 1D 43 52 43 52	02 C1 35 01 43 52 43 52 -	10 04 38 00 43 52 43 52	02 04 00 00	00 01 02	
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Flash file si Flash file siz Send: Start! Send: Start! Send: Start! Get: Cl Send: Start! Get: Cl Berror Becover Packd: Status:	e: 49152 e: 49152 0 67 82 7	r Era Pro Ver	01 10 04 38 00 1D 43 52 43 52 see Get: C gram 0	02 C1 35 01 43 52 43 52	10 04 38 00	02 04 00 00	00 01 02 100% 12%	2

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Get: C1			52	43	52	43	52 4	13 5	24	3 52	43	52	43	52	43	52	43	52	43	52		
Send: Block2		*	43	52	43	52	43 5	52 4	3 5	2 43	52	43	52	43	52	43	52	43	52	43	*	
Error Recover	0		Erase	ï																		
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Pack1:	82		Program																			
				0	1																100	8
Status:	7		Verify																			
				- 7	i i																100	

4. 完成后软件弹出提示框,点击"确定",更新完成。 After successful update, please click "Confirm".

AP Code path:		_A. bin	0						F	LA	SH			
Flash file size	: 18542		×	٦.								11		
				43	52	43 5	2 43	3 52	43	52 43	3 52	^		
Send: Start!		Upadate finished.P	lease restart device!	52	43	52 4	3 52	43	52	43 53	2 43			
Send: Start!				43	52	43 5	2 43	52	43	52 43	3 52			
Get: C1				52	43	52 4	3 52	2 43	52	43 5	2 43			
Send: Block2 Get: C2			确定	43 52	52 43	43 5 52 4	2 43 3 52	3 52 2 43	43 52	52 4: 43 5:	3 52 2 43	~		
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- 3		Paraman												
Pack1:	82	110gram	0									100	194	
Status:	9	Verify										100	5 N	
			0									100	3%	

5. 更新完成后请按照产品手册恢复机器出厂设置。 Please reset the device according to the manual.

# 四. 版本确认(Version Verification)

更新成功后请检查机器内部版本信息。检查方式如下:

Once the update is successful, please verify the firmware version using one of the three methods indicted below.

1. 按上翻页键查看机器显示屏中显示的软件版本。

You can verify the firmware version by clicking through the LCD screen and find the page indicated below.



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### 2. 使用本地监控软件 PV Keeper 读取软件版本信息。

Verify with local monitoring software PV Keeper.

🔣 PVkeeper V2.0					· E	×
参数设置 观察 语言 帮助						
基本配置	Ĵ.	─基本信息 ————————————————————————————————————	.9 <b>V</b>		0	V
	//	电网频率: 49.	98 Hz		0	A
		市电充电电流: 0	×		D	8
上 读取问隔: (5)		电池电压: 0	V.		225.	9 V
		电池容里: 0	8		50.0	)2 <sub>Hz</sub>
		充电电流: 0	A		9	W
		负荷率: 0.1			88	VA
<u>^</u>						
		错误:		警告: Bat	open	
		状态: AC charge and B	ypass		PV First	
	_ 由量统计					
机型: none	当天发电量:	0 KWH			171.4	
序列号: QGC0814055		0 K8H			59.7	
+C20版本: 102.00		0 KWH			230.6	
U con∉t, 103.00		0 RWH			127.7	
		0 KWH			128.2	KWH

## 3. 通过远程监控网页查看。

Verify via online monitoring platform.

RKG7BHJ01F				
(1)	设备序列号: RKG7BHJC	11F 🕐	连接状态:断开	更新时间: 2022-06-24 08:28:50
	用户名: gac123	模式 AOBODOTOPOUOMOSO	电站名: Walstreet	数据采集器: DDD0BDB1J0 ①
	今日发电(kWh): 0	内部版本号 040.05/041.05 设备型号 SPF 5000 ES	当月发电(kWh): 0	累计发电量(kWh): 448.9
		版本号 null		

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