Operation Guidance for Multiple SPH in Parallel Application

1. System Diagram

SPH 3000-6000TL BL-US model in parallel diagram



Wiring Instructions:

No.	Corresponding Terminal position	Description
1	Meter: A+ to ShineMaster: A2	Use ordinary Network
	Meter: B- to ShineMaster: B2	cables
2	ShineMaster: A1 to RJ45:Pin1	Use ordinary Network
	ShineMaster: B1 to RJ45:Pin2	cables
3	One - to - two communication line between ShineMaster	
	and SPH is used to solve the problem of insufficient	
	communication port	
4	RJ45:Pin1~The Meter interface of the SPH-US is A+	
	RJ45:Pin2 \sim The Meter interface of the SPH-US is B+	
5	RS485 cable	

SPH 3000-6000TL-UP models in parallel diagram



Wiring Instructions:

No.	Corresponding Terminal Position	Description
1	Meter: A+ to ShineMaster: A2	Use ordinary Network
	Meter: B- to ShineMaster: B2	cables
2	ShineMaster: A1 to 485-1: Pin4	Use ordinary Network
	ShineMaster: B1 to 485-1: Pin5	cables
3	Ordinary cable	

SPH 4000-10000TL3 BH-UP models in parallel diagram



Wiring Instructions:

No.	Terminal Position	Description
1	Meter: A+ to ShineMaster: A2	Use ordinary Network
	Meter: B- to ShineMaster: B2	cables
2	ShineMaster: A1 to 485-1: Pin4	Use ordinary Network
	ShineMaster: B1 to 485-1: Pin5	cables
3	Ordinary cable	

Notice:

The SEM-E device has built-in ShineMaster and smart meter together, and the installer can ignore the wiring connection between them if the installer uses the SEM-E device for a parallel extension.

2. ShineMaster Setting

2.1 Enter ShineMaster's built-in web page through a PC to make relevant settings. The PC is directly connected to the RJ45 port of the ShineMaster through a network cable. The computer IP address and default gateway are changed to 192.168.0. XXX (XXX ranges from 2 to 253).

Note: The default internal access IP address of the ShinMaster is 192.168.0.254. Enter

192.168.0.254 on the web UI to go to the built-in page. Computer IP Settings are shown in the figure below:

Internet Protocol Version 4 (TCP/IPv4)	Properties	×			
General	General				
You can get IP settings assigned auton this capability. Otherwise, you need to for the appropriate IP settings.	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.				
ODtain an IP address automatical	У				
Use the following IP address:					
IP address:	192.168.0.03				
Subnet mask:	255 . 255 . 255 . 0				
Default gateway:	192.168.0.03				
Obtain DNS server address automatically					
Preferred DNS server:	114 . 114 . 114 . 114				
Alternate DNS server:					
Validate settings upon exit Advanced					
	OK Cancel				

2.2 The built-in web page of ShineMaster is as follows. The login account is admin, and the password is the same as the account. It is used to add and delete devices, select operation mode, modify the baud rate of the RS485 channel, etc. If you want to modify or select "meter channel" and "meter address", you need to use the admin000 test account, and the password is the same as the account

	ShineMaster Setting Center	简体中文 English
Datalogger Information Export limit & Datalogger setting Network setting System management		
Logout	Usemame admin Password admin	

2.3 After logging in, click to enter the Export limit & Datalogger setting interface. Please set the communication address between SPH and ShineMaster in the following order.

Step1. First, select RS485-1 and add the communication interface between SPH and ShineMaster

图片规定			
A summer	ShineMaster Setting Center		
Datalogger information	Export limit & Datalognor cotting		
	Export limit & Datalogger setting	1	
Export limit & Datalogger setting	Meter channel	RS485_2 V	
Network setting	Meter address	2	
Network Setting	Monitor mode	○NONE	
System management	Export limit power (kW)	0 (XX:Export, -XX:Import)	
Device state	Fallback activated	vated On On	
	Datalogger time	2021-07-27 14:46:55 Get Local Time	
	Reactive power regulation 1	○ On	
Logout	Add or delete devices	NULL Add O Del	
	SCADA to Vietnam	RS485_1 RS485_2	
	Update firmware	○ Yes ● No Select the communicatio	n interface
	Reboot	⊙ Yes ◉ № between SPH and shinem	laster
		Save Cancel	

2.4 Select inverter

	ShineMa	ster Setting Center	简体中文 English
Datalogger information	Export limit & Datalogger settin		
Export limit & Datalogger setting	Meter channel	RS485_2 V	
Network setting	Meter address	2	
Network Setting	Monitor mode	○NONE	
System management	Export limit power (kW)	0 (XX:Export, -XX:Import)	
Device state	Fallback activated	○ On ● Off	
	Datalogger time	2021-07-27 14:46:55 Get Local Time	
	Reactive power regulation	On ● Off 2	
Logout	Add or delete devices	RS485_1 NULL O Add O Del	
	SCADA to Vietnam	O On O SDM120	
	Update firmware	O Yes ● NBatteryBox Select in	verter
	Reboot	O Yes ● NCHNT_DDSU	
		GTL_INVERTER 2ancel	
	<u></u>	GTI_IPOWER GTI_369A	
		DTL645 TW_CS1_T	
		TW_CS1_VA BSM_0404	
		JF_5AD5DA MS_60	
		SUNWAY_TG DS18B20	
		ACREL_METER BCU_Battery	

2.5 Red box 1 is used to assign a communication address to the devices. For example, there are three SPH in parallel; Write the number "1" in red box 1, and then click red box 2 and red box 3; When you want to assign an address to the second SPH, write the number "2" in red box 1, and then click red box 2 and red box 3; When you want to assign an address to the third SPH, write the number "3" in red box 1, and then click red box 2 and red box 3;

	ShineMaster Setting Center		
Detelementing			
Datalogger Information	Export limit & Datalogger setting		
Export limit & Datalogger setting	Meter channel	RS485_2 V	
Network setting	Meter address	2	
	Monitor mode	ONONE ● Export limitation OStorage Parallel	
System management	Export limit power (kW)	0 (XX:Export, -XX:Import)	
Device state	Fallback activated	○ On ● Off	
	Datalogger time	2021-07-27 14:46:55 Get Local Time Assign communication	
	Reactive power regulation	○ On ● Off address to SPH	
Logout	Add or delete devices	RS485_1 VINVERTER V 1 O Add O Del	
	SCADA to Vietnam	○ On [●] Off 1 2	
	Update firmware	○ Yes ● No	
	Reboot	○ Yes ● No	
		Save Cancel	

2.6 After logging in, click to enter the Export limit & Datalogger setting interface again. Please set the communication address between Smartmeter and ShineMaster in the following order. Select RS485-2 and add the communication interface between the meter and ShineMaster

	ShineMaster Setting Center			English
Datalogger information	Export limit & Datalogger setting			
Export limit & Datalogger setting	Meter channel	R\$485_2 V		
Network setting	Meter address	2		
Sustan management	Monitor mode	○NONE Export limitation Storage Parallel		
System management	Export limit power (kW)	0 (XX:Export, -XX:Import)		
Device state	Fallback activated	○ On ● Off		
	Datalogger time	2021-07-27 14:46:55 Get Local Time		
	Reactive power regulation	○ On		
Logout	Add or delete devices	NULL Add O Del		
	SCADA to Vietnam	R8485_2		
	Update firmware	○ Yes [®] No		
	Reboot	○ Yes		
		Save Cancel		

2.7 Then select the corresponding meter model according to the meter used; SDM120 single phase electricity meter; SDM630 three-phase electricity meter; Acrel Meter is a split-phase meter (special

for SPH-US)

	ShineMast	er Setting Center	】 資格中文 English
Datalogger information Export limit & Datalogger setting Network setting System management Device state	Export limit & Datalogger setting Meter channel Meter address Monitor mode Export limit power (kW) Fallback activated Datalogger time Reactive power regulation Add or delete devices SCADA to Vietnam Update firmware Reboot	RS485_2 × 2 ONONE © Export limitation O Storage Parallel 0 (XX Export, XX Import) On © Off 2021-07-27 14.46:55 Grit Local Time On © Off RS485_1 × NVCRTER AVERTER Add On © Off RS485_1 × NULL On © Off RS485_1 × NULRTER Add On © SUM30 Ves © NCHNT DTSU OTL#46 TW-CS1_T WCS1_T SM 0404 JF 58050A N 650 DS169207 ACREL_METER BUD Battery MBMS Battery	There are three kinds of meters used by SPH series models, sdm120 (single-phase meter); Sdm630 (three-phase electricity meter); Acrel meter (split phase meter, special for sph-us)

2.8 Different smart meters have corresponding communication addresses (SDM 120 communication address is "1", SDM630 communication address is "2", and the ACREL meter communication address is "2". CHNT DDSU communication address is "3"; The CHNT DTSU communication address is "4". After filling in the address, please add and save it according to the red numbers 2 and 3 in the figure

(Landa)	ShineMaster Setting Center
Datalogger information	Export limit & Datalogger setting
Export limit & Datalogger setting	Meter channel RS485_2 V
Network setting	Meter address 2
	Monitor mode ONONE
System management	Export limit power (kW) 0 (XX:Export, -XX:Import)
Device state	Fallback activated On On On Onf
	Datalogger time 2021-07-27 14:46:55 Get Local Time d the model
	Reactive power regulation O ff
Logout	Add or delete devices RS485_1 V INVERTER V O Add O Del
	SCADA to Vietnam O On On Off 1 2
	Update firmware O Yes No
	Reboot O Yes No
	Save Cancel
	3

Meter	The corresponding address in ShineMaster
SDM 120/SPM-E/SPM-CT-E	1
SDM 630/TPM-E/TPM-CT-E	2
Acrel Meter	2
CHNT DDSU series	3
CHNT DTSU series	4

3. SPH Address Setting

3.1 Please operate at the LCD interface of SPH and set the communication address according to the following steps

WorkMode	WorkMode	WorkMode
Basic Parameter	RS485 Addr	COM Address: 1

3.2 Press and hold the "OK" key for more than 3S to enter the following menu



3.3 Press "OK" and use the scroll down key to select the following page



3.4 Press "OK" to select the following page, and use the scroll down key or scroll up key to select the address to set.



Note: Please set the corresponding addresses according to the communication address between SPH and ShineMaster set in **step 2.5**. For example, if there are three SPH in the system, set SPH to "001", SPH2 to "002", and SPH3 to "003"

3.5 After setting the corresponding address, press OK to confirm, and the setting is completed.



4. SPH RS485 Function Setting

4.1 Press Enter for more than 3 seconds to "OK" the parameter setting screen



4.2 Press up or down to enter RS485Setting interface

Battery Open				
RS485 Setting				
DC				
RS232				

4.3. Press the OK key to enter the ShineMaster port selection screen. Select a port for SPH to communicate with ShineMaster.

Note: The operation interface of different models is different. The operation interface of each model will be listed in detail below.

4.3.1 SPH 3000-6000TL BL-US operations are as follows:



After pressing the "OK" key, the characters on the LCD begin to blink. Then use the down key or up key to select the Port: ShineMaster, and press OK to complete the setting

4.3.2 SPH 3000-6000TL BL-UP and SPH 4000-10000TL3 BH-UP operations are as follows:



Port:	Normal Shinem	aster
	DCAC	**
	RS485	

After pressing the "OK" key, the characters on the LCD begin to blink. Then use the down key or up key to select the Port: ShineMaster, and press OK to complete the setting