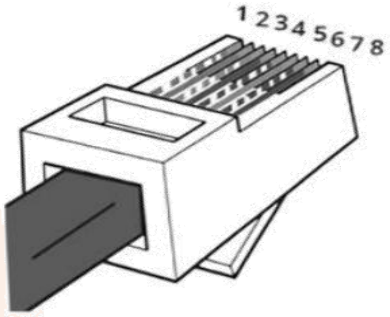
Communication Guide for Felicity Battery and Growatt Inverter

RS485 Matched Hybrid Inverter Brands			
Brand	Model	Communication protocol	Cable Supply
Growatt	SPF 3500 -5000 ES SPF 6000 ES Plus	RS485	RJ45

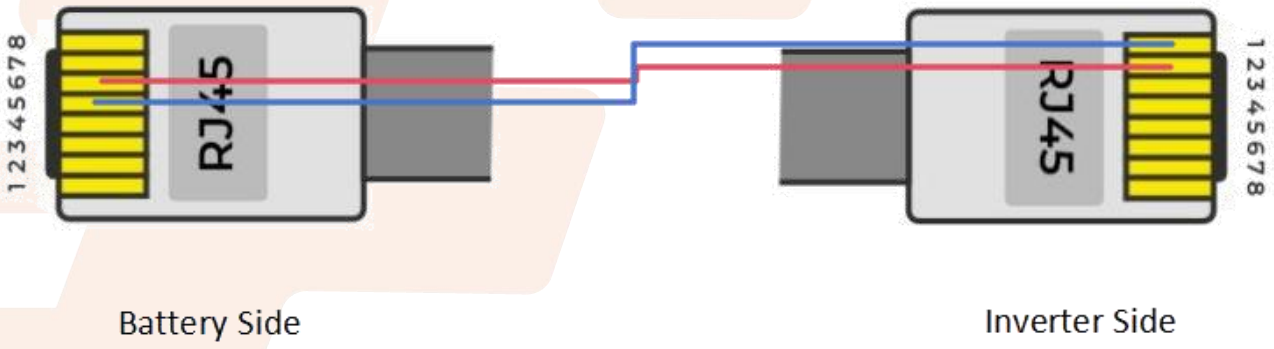
(1) The corresponding communication pins are defined in the following table. You can make communication cables according to this table.

	FelicityESS	Growatt
RS485A	Pin6	Pin2
RS485B	Pin5	Pin1

(Order of Communication Cable)



(RJ45 Pin Sequence)

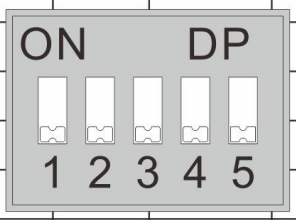


(RS485 Communicate Cable Connection)

(2) Set the battery DIP switch according to the table below.

Parallel DIP Switch

No.of BAT	1	2	3	4	5	6	7	8	9	10	11	12
1PCS	1,5 ON											
2PCS	1,5 ON	2,5 ON										
3PCS	1,5 ON	2 ON	1,2,5ON									
4PCS	1,5 ON	2 ON	1,2 ON	3,5ON								
5PCS	1,5 ON	2 ON	1,2 ON	3 ON	1,3,5ON							
6PCS	1,5 ON	2 ON	1,2 ON	3 ON	1,3 ON	2,3,5ON						
7PCS	1,5 ON	2 ON	1,2 ON	3 ON	1,3 ON	2,3 ON	1,2,3,5ON					
8PCS	1,5 ON	2 ON	1,2 ON	3 ON	1,3 ON	2,3 ON	1,2,3 ON	4,5ON				
9PCS	1,5 ON	2 ON	1,2 ON	3 ON	1,3 ON	2,3 ON	1,2,3 ON	4 ON	1,4,5ON			
10PCS	1,5 ON	2 ON	1,2 ON	3 ON	1,3 ON	2,3 ON	1,2,3 ON	4 ON	1,4 ON	2,4,5ON		
11PCS	1,5 ON	2 ON	1,2 ON	3 ON	1,3 ON	2,3 ON	1,2,3 ON	4 ON	1,4 ON	2,4 ON	1,2,4,5ON	
12PCS	1,5 ON	2 ON	1,2 ON	3 ON	1,3 ON	2,3 ON	1,2,3 ON	4 ON	1,4 ON	2,4 ON	1,2,4,ON	3,4,5ON



Note: The inverter needs to be connected to the first battery, that is, the battery pack with the 1,5 ON.

Note: The setting takes effect only after the battery is restarted

(3) Follow the instructions below to set up the inverter.

05	Battery type	AGM (default) bAtt AGn 005 Flooded bAtt FLd 005 Lithium (only suitable when communicated with BMS) bAtt Li 005 User-Defined bAtt USE 005 If "User-Defined" is selected, battery charge voltage and low DC cut-off voltage can be set up in program 19, 20 and 21. User-Defined 2（suitable when lithium battery without BMS communication） bAtt US2 005 If "User-Defined 2" is selected, battery charge voltage and low DC cut-off voltage can be set up in program 19, 20 and 21. It is recommended to set to the same voltage in program 19 and 20(full charging voltage point of lithium battery). The inverter will stop charging when the battery voltage reaches this setting.

36	RS485 Communication protocol	Protocol 1	PtCL L01 036
		Protocol 2	PtCL L02 036
		:	:
		Protocol 50	PtCL L50 036
	CAN Communication protocol	Protocol 51	PtCL L51 036
		Protocol 52	PtCL L52 036
		:	:
		Protocol 99	PtCL L99 036

select protocol 4

(4) After successful communication, you can see the battery information on the display screen.