GROWATT
INVERTER GUIDE

+ SETTINGS
+ COMMUNICATION
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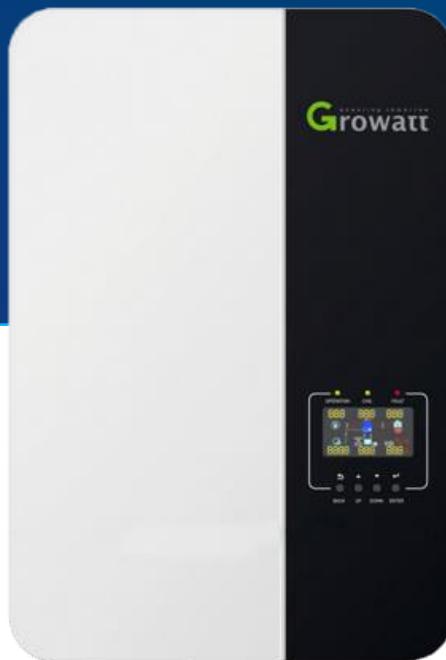
HUBBLE™ ENERGY

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HUBBLE ENERGY & GROWATT

The Growatt inverters are compatible with the Hubble range of batteries, however compatibility varies depending on the inverter series. Please take special note of the ES Series Setup mentioned below. The following field guide will assist with the correct battery settings you should use.

For further detailed information ensure you read the manual of the supplied battery regarding setup and installation instructions.

https://www.hubbleenergy.com/ for the latest version of this manual.

WARNING

Working with high-voltage systems is dangerous. Do not attempt to modify your inverter and battery setup unless you are certain you understand the risk. Speak to a qualified electrician if you are unsure.

INVERTER SETTINGS

Model	Voltage	Equalised	Float	Cutoff	Charge Amps	Max Discharge Current
S-SERIES	12V	14	14	12	30A	100A
X-100	48V	52.8	52.8	44	30A	100A
X-101	48V	53.8	53.8	44	30A	100A
X-200	36V	41.5	41.5	34	30A	100A
AM-2	48V	53.8	53.8	44	30A	100A
AM-3	48V	53.8	53.8	44	20A	50A
AM-4	24V	29	28.5	22	30A	100A
AM-5	48V	55.2	55.2	47	30A	100A
AM-10	48V	55.2	55.2	47	60A	150A
BLADE	48V	55.2	55.2	47	50A	200A

PIN LAYOUTS & CLOUDLINK

Hubble Energy recommends the Cloudlink Device on Growatt installations. It is not required but recommended.

CLOUDLINK

The Cloudlink will connect to the Battery via:

Cloudlink's (Serial/RJ12 Port) to the Battery (RS232/RJ12 Port)

(Black Cable) – RJ12 to RJ12 (450mm) cable.

RJ45 PIN LAYOUTS

The Growatt Inverter will connect to the Battery via:

Inverter (CAN Port) to Battery (CAN Port)

Straight RJ45 to RJ45 wire - 1500mm.

Ensure that the clip is pointed away from you when counting the pins.

| Pin	Inverter	X-101/AM-4/AM-2	AM-5/AM-10	Blade
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	CANH	CANH	CANH	CANH
5	CANL	CANL	CANL	CANL
6	GROUND	GROUND	-	-
7	-	-	-	-
8	-	-	-	-

FINAL STEP TO GROWATT SPF 5000 ES SERIES INVERTER:

To connect battery BMS, need to set the battery type as "LI" in Program 05.
After set "LI" in Program 05, it will switch to Program 36 to choose communication protocol. You can choose RS485 communication protocol, which is from L01 to L50, and you can also choose CAN communication protocol which is from L51 to L99.

4 & 5 Pin Layout image reference seen below:
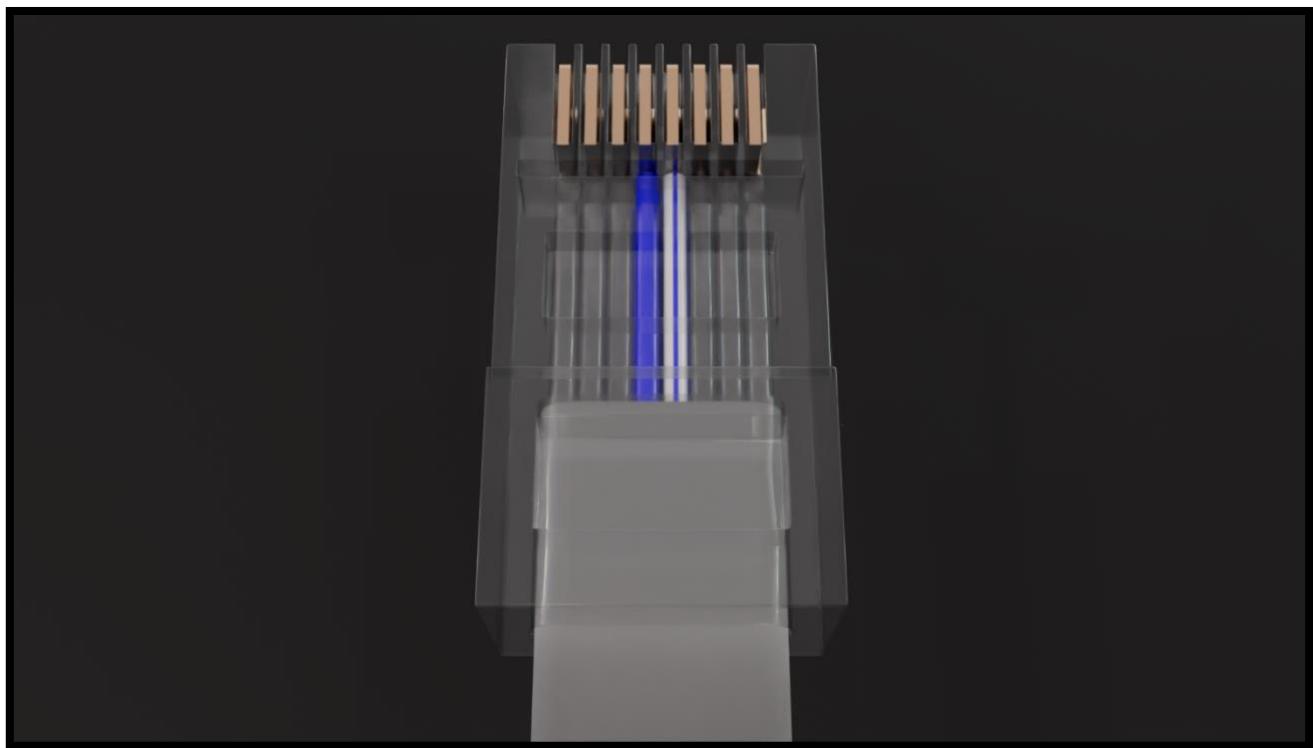
4, 5 & 6 Pin Layout image reference seen below:
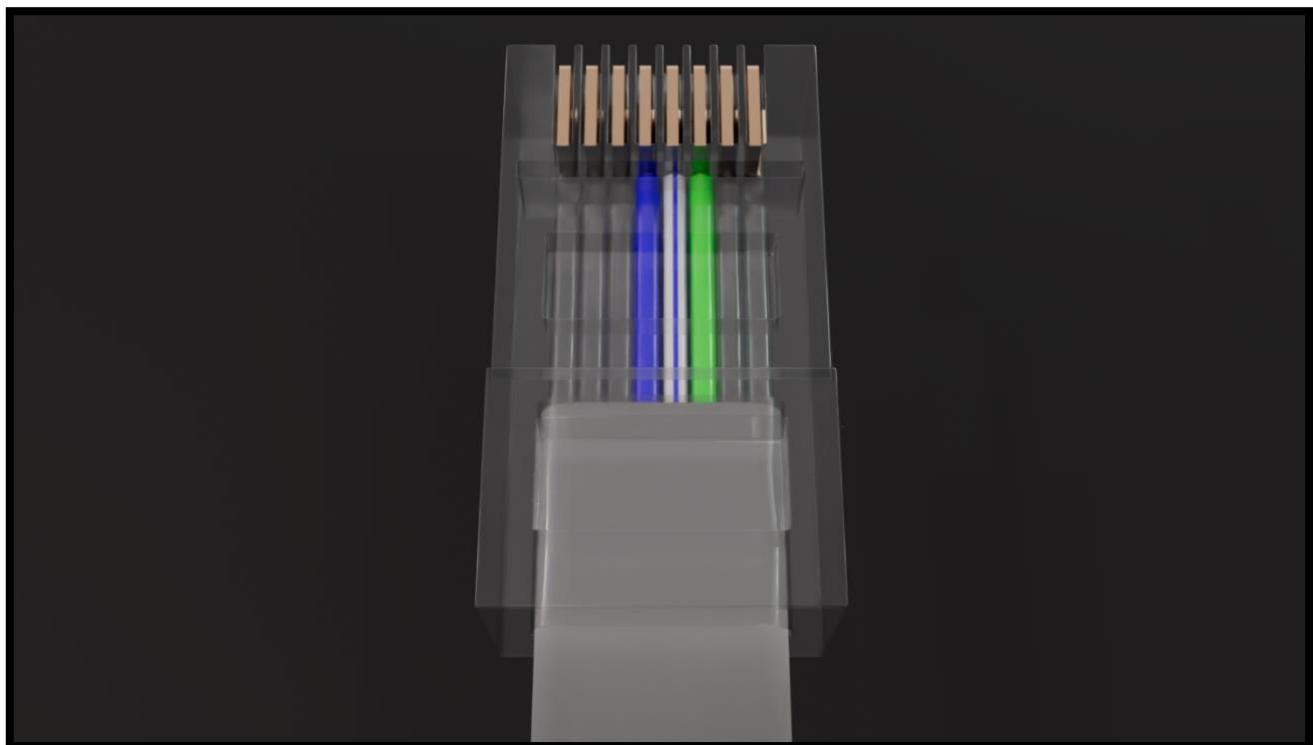
HUBBLE DIP SWITCH SETTINGS

FOR MULTIPLE BATTERY INSTALLATION

For correct setup and communication, each battery needs a unique serial address to communicate. If you are only using one battery in your setup, consider this the master battery and ensure you set it to address 1.

AM-2, AM- 4, AM-10+, AM-16+ & BLADE DIP SWITCHES

ADDRESS	SWITCH POSITIONS			
	#1	#2	#3	#4
1	ON	OFF	OFF	OFF
2	OFF	ON	OFF	OFF
3	ON	ON	OFF	OFF
4	OFF	OFF	ON	OFF
5	ON	OFF	ON	OFF
6	OFF	ON	ON	OFF
7	ON	ON	ON	OFF
8	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON
10	OFF	ON	OFF	ON
11	ON	ON	OFF	ON
12	OFF	OFF	ON	ON
13	ON	OFF	ON	ON
14	OFF	ON	ON	ON
15	ON	ON	ON	ON

AM-5 & AM-10 DIP SWITCHES (4-DIP VERSION)

ADDRESS	SWITCH POSITIONS			
	#1	#2	#3	#4
1	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	OFF	ON	OFF	OFF
4	ON	ON	OFF	OFF
5	OFF	OFF	ON	OFF
6	ON	OFF	ON	OFF
7	OFF	ON	ON	OFF
8	ON	ON	ON	OFF

AM-10 (8-DIP VERSION)

ADDRESS	SWITCH POSITIONS						
	#1	#2	#3	#4	#5	#6	Mark (#7 & #8)
0	ON	ON	OFF	OFF	OFF	OFF	Mastery Battery/Enable CAN BUS Port - ON
1	OFF	OFF	OFF	OFF	OFF	OFF	Slave 2 - OFF
2	OFF	ON	OFF	OFF	OFF	OFF	Slave 3 - OFF
3	OFF	OFF	ON	OFF	OFF	OFF	Slave 4 - OFF
4	OFF	ON	ON	OFF	OFF	OFF	Slave 5 - OFF
5	OFF	OFF	OFF	ON	OFF	OFF	Slave 6 - OFF
6	OFF	ON	OFF	ON	OFF	OFF	Slave 7 - OFF
7	OFF	OFF	ON	ON	OFF	OFF	Slave 8 - OFF
8	OFF	ON	ON	ON	OFF	OFF	Slave 9 - OFF
9	OFF	OFF	OFF	OFF	ON	OFF	Slave 10 - OFF
10	OFF	ON	OFF	OFF	ON	OFF	Slave 11 - OFF
11	OFF	OFF	ON	OFF	ON	OFF	Slave 12 - OFF
12	OFF	ON	ON	OFF	ON	OFF	Slave 13 - OFF
13	OFF	OFF	OFF	ON	ON	OFF	Slave 14 - OFF
14	OFF	ON	OFF	ON	ON	OFF	Slave 15 - OFF

FREQUENTLY ASKED QUESTIONS

How do you set up multiple batteries?

See table above and check your product manual for a more detailed explanation. You will have to set dip switch settings per battery to give them a unique address. You also must connect the included RJ45 battery link cables into the "Battery Link" port of each battery. Ensure your master battery dip switch 1 is on, 2,3,4 is OFF. Only the master battery CAN Bus will be enabled. You can then connect the Hubble Cloudlink into the CAN port of the master battery for communications to work.

Do I have to use the communication battery link cables if I don't want to monitor or have communications?

Yes, it is recommended to still connect the slave cables for inter BMS communications.