HUBBLE™ ENERGY

How to parallel AM2+ with AM2

MANUAL

Communication

Settings

Connections

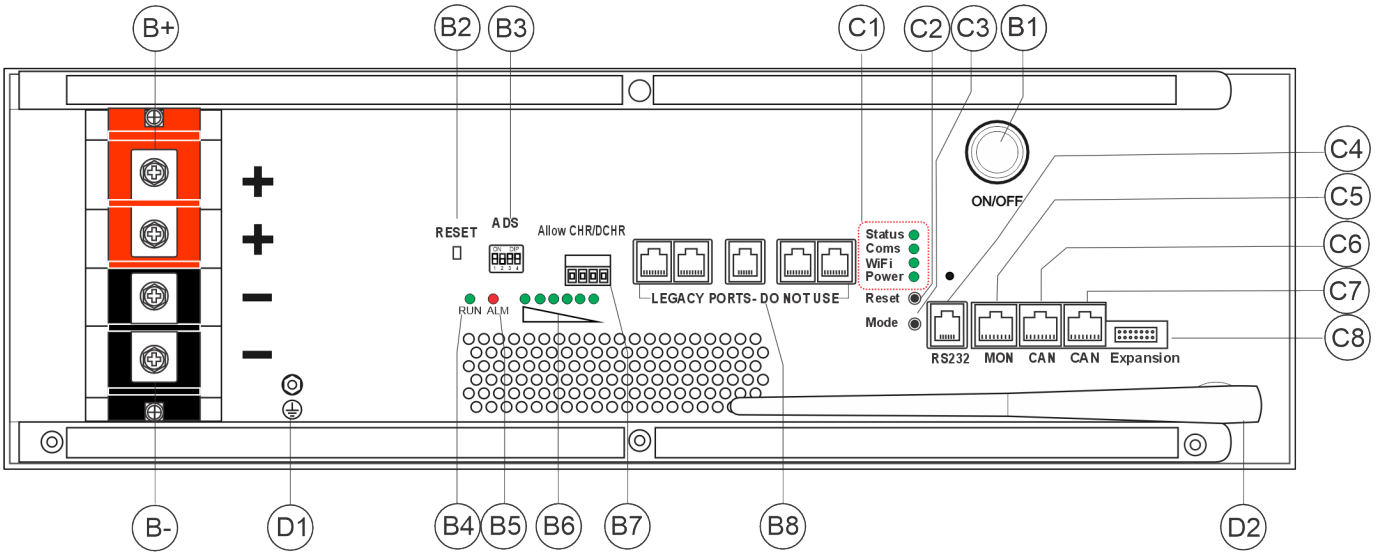
Table of Contents

1. IMPORTANT INFORMATION 1
1.1 AM2+ Wiring Interface 1
1.1.1 Legends 1
2. AM2+ / AM2 DIP SWITCH SETTINGS 2
2.1 Communication Cable Connection 3
2.1.1 Inverter to Battery CAN Communications Cable 3
2.1.2 AM2+ Battery Communications Wiring 3
2.1.3 1 x AM2+ Battery 3
2.1.4 2 x AM2+ Batteries 3
2.2 Connecting The New AM2+ Battery with AM2 Batteries 4
2.2.1 1 x AM2+ connected to 1 x AM2 4
2.2.2 1 x AM2+ connected to 3 x AM2 5
2.2.3 2 x AM2+ connected to 3 x AM2 5

1. IMPORTANT INFORMATION

If the battery voltages vary by more than 1 V, the batteries cannot be paralleled without first charging them individually to the same voltage.

1.1 AM2+ Wiring Interface



1.1.1 Legends

Legend	Description
B+	Battery POS terminals
B-	Battery NEG terminal
B1	ON/OFF switch
B2	Reset Button
B3	Dip Switches
B4	Run LED
B5	Alarm LED
B6	SOC Indicator
B7	Allow Charge/Discharge Dry Contacts
B8	Legacy Ports – “Do Not Use”

Legend	Description
C1	Cloudlink LED’s
C2	Cloudlink Reset Button
C3	Cloudlink Mode Button
C4	RS232 Port
C5	MON Port
C6	CAN Port
C7	CAN Port
C8	Expansion Connector “Not in Use”
D1	Earth Connection
D2	Antenna

2. AM2+ / AM2 DIP SWITCH SETTINGS

For parallel connected batteries, each battery must be assigned a role as either a MASTER or a SLAVE, and all batteries must be interconnected using the battery link cables via the CAN ports.

In a parallel battery system, only one battery can function as the MASTER, and up to 14 additional batteries may be configured as SLAVES, each with a unique address.

Sometimes, if communication settings are changed while the inverter/battery is powered on and operating, the BMS data may not refresh correctly. For this reason, any adjustments to the communication cabling or battery DIP-switch settings should be made only when the entire system is powered down and fully isolated.

It may also be necessary to perform a Cloudlink reset after making these configuration changes to ensure proper communication and data updates

If the system uses only a single battery, it must be configured as the MASTER

To accomplish this, the DIP switches

must be set for each battery.

BATTERY NUMBER	ASSIGNMENT	ADDRESS	DIP SWITCH	DIP SWITCH: ADDRESS			
			POSITION	#1	#2	#3	#4
1	Master	1		ON	OFF	OFF	OFF
2	Slave 1	2		OFF	ON	OFF	OFF
3	Slave 2	3		ON	ON	OFF	OFF
4	Slave 3	4		OFF	OFF	ON	OFF
5	Slave 4	5		ON	OFF	ON	OFF
6	Slave 5	6		OFF	ON	ON	OFF
7	Slave 6	7		ON	ON	ON	OFF
8	Slave 7	8		OFF	OFF	OFF	ON
9	Slave 8	9		ON	OFF	OFF	ON
10	Slave 9	10		OFF	ON	OFF	ON
11	Slave 10	11		ON	ON	OFF	ON
12	Slave 11	12		OFF	OFF	ON	ON
13	Slave 12	13		ON	OFF	ON	ON
14	Slave 13	14		OFF	ON	ON	ON
15	Slave 14	15		ON	ON	ON	ON

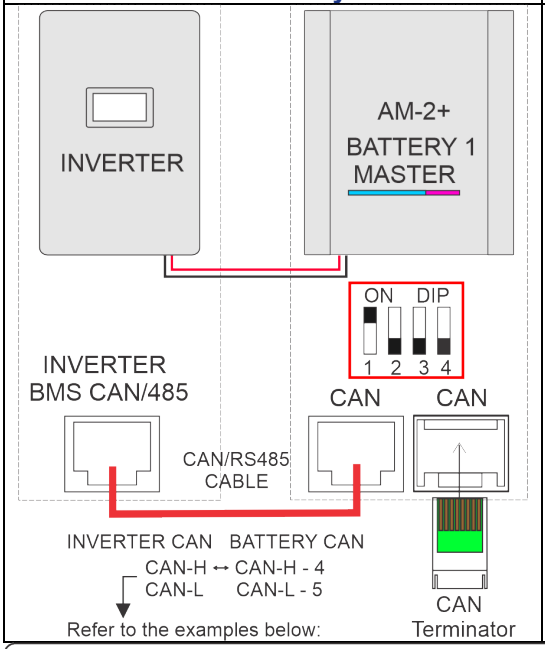
2.1 Communication Cable Connection

2.1.1 Inverter to Battery CAN Communications Cable

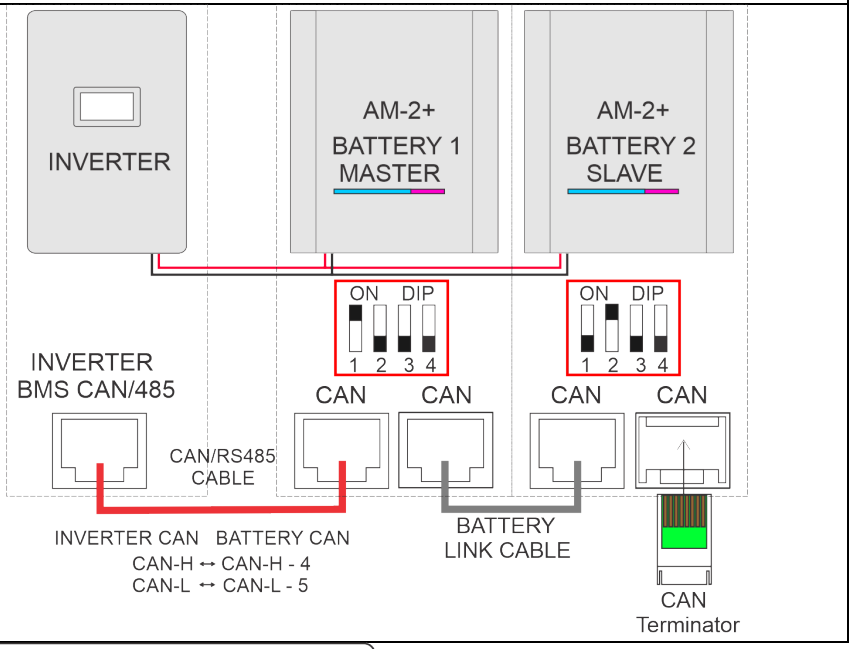
DO NOT USE A FULLY POPULATED COMMS CABLE BETWEEN THE INVERTER AND THE BATTERY

2.1.2 AM2+ Battery Communications Wiring

2.1.3 1 x AM2+ Battery



2.1.4 2 x AM2+ Batteries



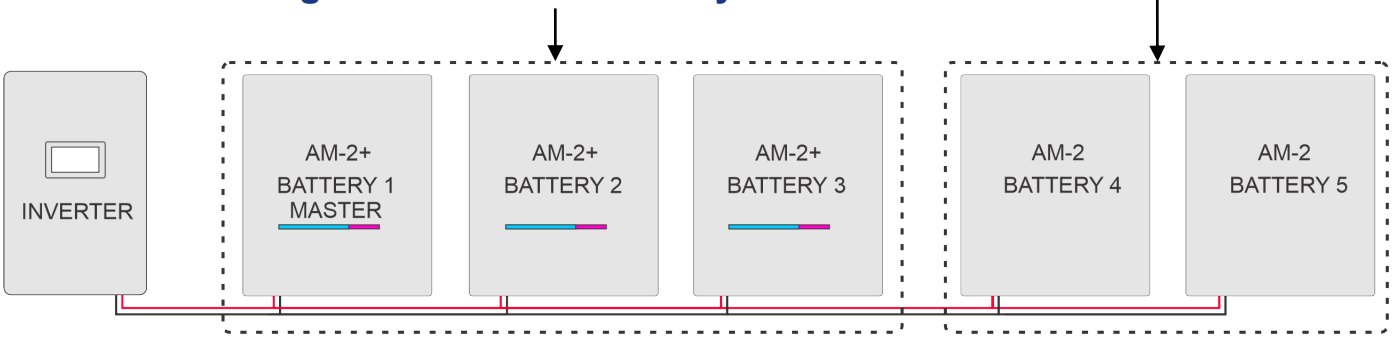
For most:

Sunsynk/Deye/Solis Inverters
5 - CAN-H
4 - CAN-L

Luxpower
Red Dipswitch Blue Dipswitch
3 - CAN-L 4 - CAN-H
4 - CAN-H 5 - CAN-L
Please check the Inverter manual.

If the inverter has a CAN port, its CAN-H and CAN-L must be connected to the battery's CAN-H and CAN-L.
Please Note: Communications cabling color in this diagram is for illustration purposes only.

2.2 Connecting The New AM2+ Battery with AM2 Batteries



WARNING — Do not connect an 8-conductor straight patch cable between the AM2+ CAN Port and the AM2 battery link port.
The two ports have different pin assignments.

When transitioning from **AM2+ to AM2**, use only the specified **2-Wire Transition Link Cable**, with:

- Pin 1 ↔ Pin 1.
- Pin 2 ↔ Pin 2.
- Pins 3,4,5,6,7,8 must remain disconnected.

Cable Types:

- AM2+ CAN → AM2+ CAN uses the 8-core straight battery link cable.
- AM2+ CAN → AM2 Battery Link Port uses the special 2-wire transition link cable.
- AM2 Battery Link Port → AM2 Battery Link Port uses the 8-core straight battery link cable.

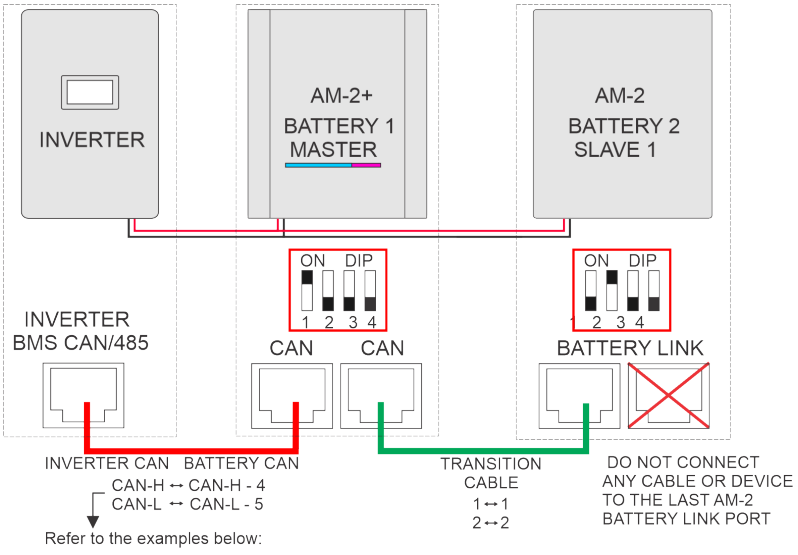
CloudLink Firmware:

- All the AM2+'s internal CloudLinks must be running CloudLink Firmware v5.0.8 or later.

Example diagrams Sections:

- 8.6.1 - 1 x AM2+ connected to 1 x AM2
- 8.6.2 - 1 x AM2+ connected to 3 x AM2
- 8.6.3 - 2 x AM2+ connected to 3 x AM2

2.2.1 1 x AM2+ connected to 1 x AM2

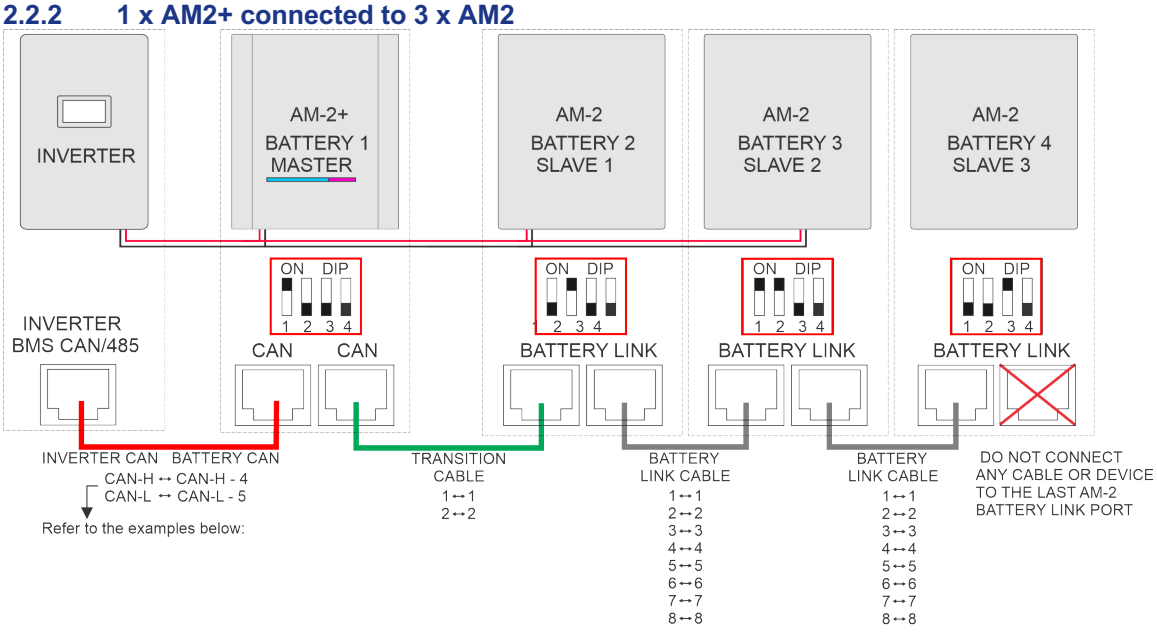


For most:
Sunsynk/Deye/Solis Inverters
5 - CAN-H
4 - CAN-L

Luxpower
Red Dipswitch Blue Dipswitch
3 - CAN-L 4 - CAN-H
4 - CAN-H 5 - CAN-L
Please check the Inverter manual.

Please Note: Communications cabling color in this diagram is for illustration purposes only.

2.2.2 1 x AM2+ connected to 3 x AM2

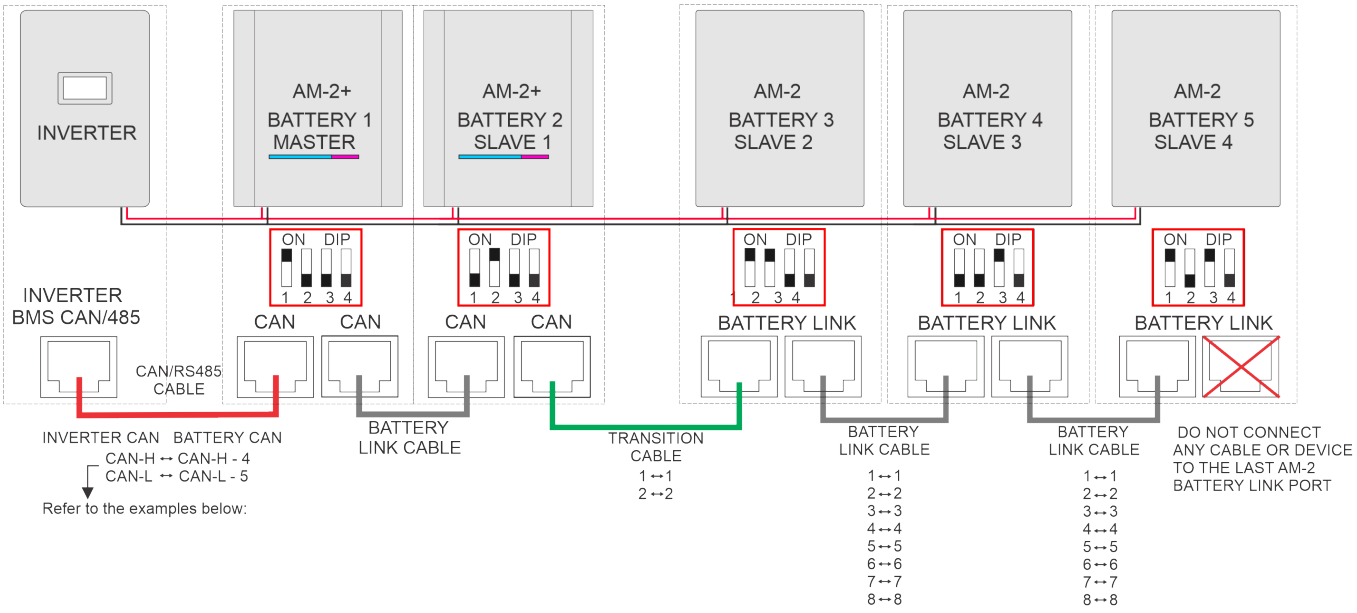


For most:
Sunsynk/Deye/Solis Inverters
5 - CAN-H
4 - CAN-L

Luxpower
Red Dipswitch Blue Dipswitch
3 - CAN-L 4 - CAN-H
4 - CAN-H 5 - CAN-L
Please check the Inverter manual.

Please Note: Communications cabling color in this diagram is for illustration purposes only.

2.2.3 2 x AM2+ connected to 3 x AM2



For most:
Sunsynk/Deye/Solis Inverters
5 - CAN-H
4 - CAN-L

Luxpower
Red Dipswitch Blue Dipswitch
3 - CAN-L 4 - CAN-H
4 - CAN-H 5 - CAN-L
Please check the Inverter manual.

Please Note: Communications cabling color in this diagram is for illustration purposes only.

Hubble reserves the right to make alterations and updates to this document as required.