SOLAX G2 SERIES INVERTER

PCS SETTING MANUAL

Version 6.0

www.solaxpower.com

SolaX A1-HYB-G2 Series, A1-AC-G2 Series inverter and A1-ESS-G2 support the following four PCS working modes:

a) **Unrestricted Mode —** The ESS may import active power from Area EPS while charging and may export active power to the Area EPS while discharging.

b) **Export Only Mode —** The ESS may export active power to the Area EPS during discharing but shall not import active power from the Area EPS for ESS charging purposes.

c) **Import Only Mode —** The ESS may import active power from the Area EPS for charging purposes but shall not export active power from the ESS to the Area EPS.

d) **No Exchange Mode —** The ESS shall not exchange active power with the Area EPS for charging or discharging purposes.

1 Model Number and Additional Required PCS Devices

The system device show as below:

Type of Equipment	Model Number	Additional Devices Requiredfor PCS Functionality	Brief Description	Current Measurement Reference Points
ESS	A1-ESS-G2	Backup Interface (A1-BI-200-G2 or A1-BI PRO-200-G2) with or without External CTs	The bidirectional Inverter (s) used in combination with External Backup Interface (A1-BI-200-G2 or A1-BI PRO-200-G2) to build up a Power Conversion System, with PCS functionality. May be paired with PV system.	Backup Interface with or without External CTs
Inverter	A1-HYB-7.6K-G2	Meter with External Meter CTs	Inverter & Meter & External Meter CTs	External Meter CTs
	A1-HYB-6.0K-G2			
	A1-HYB-5.0K-G2			
	A1-HYB-3.8K-G2			
	A1-AC-7.6K-G2			
	A1-AC-6.0K-G2			
	A1-AC-5.0K-G2			
	A1-AC-3.8K-G2			

External Consumption CT:CTSA024-XXXX/YYYY (Part Number: 101006020600).

Meter with External Meter CTs: AGF-AE-D/200

See A1-ESS-G2 Installation Guide for more information.

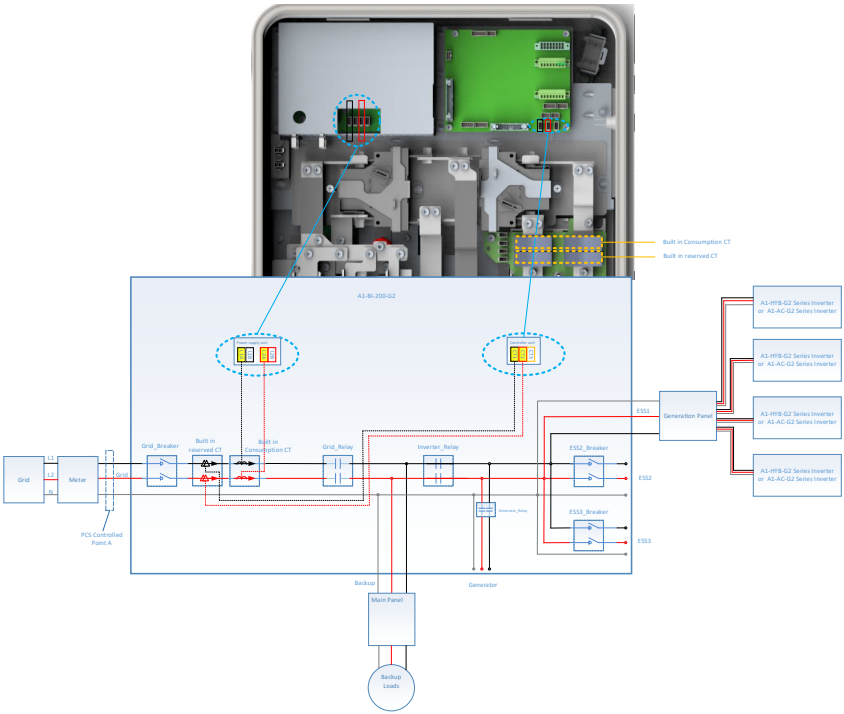
2 Wiring Diagram and Installation

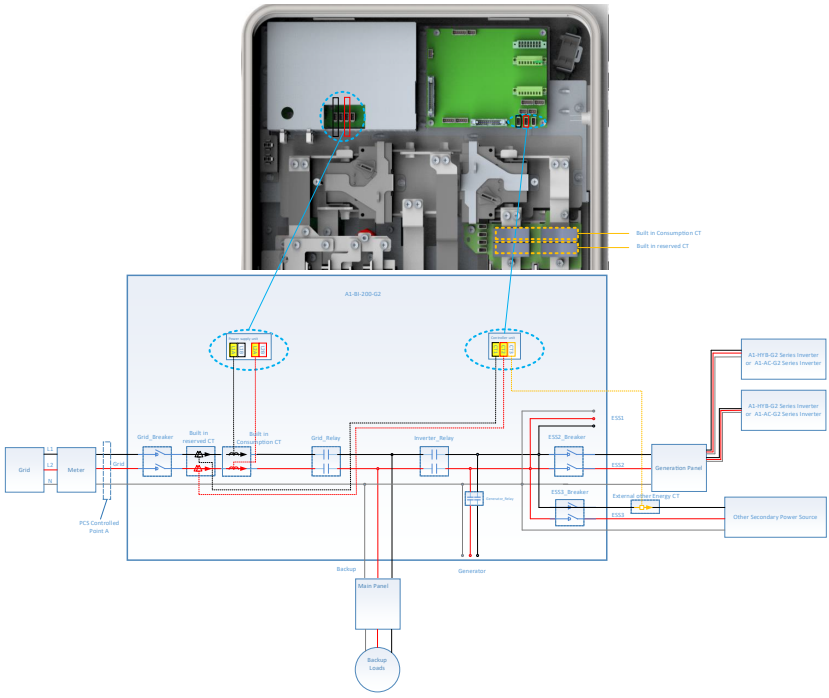
The Wiring diagram and installation show as below:

2.1 With A1-BI-G2-200

A) Whole home backup mode

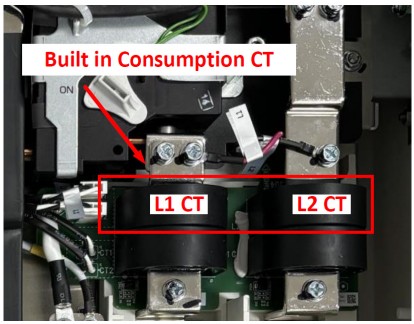
- Wiring diagram



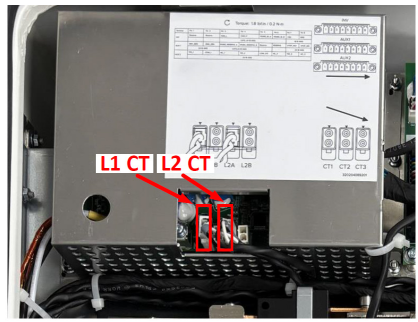


with Other Secondary Power Source

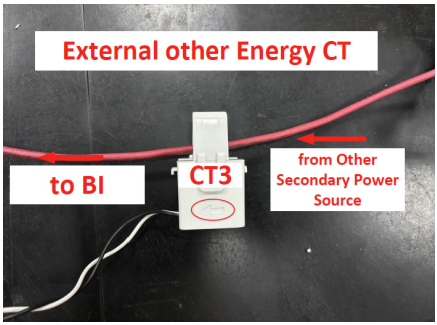
- Image of Actual CTs Placement inside BI



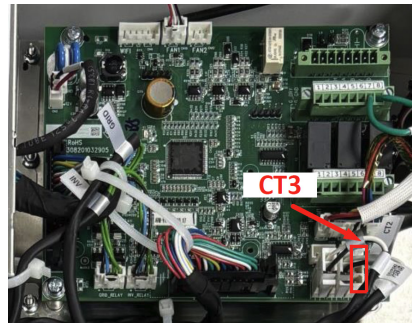
PCS CTs placement location inside BI



PCS CTs connection to BI



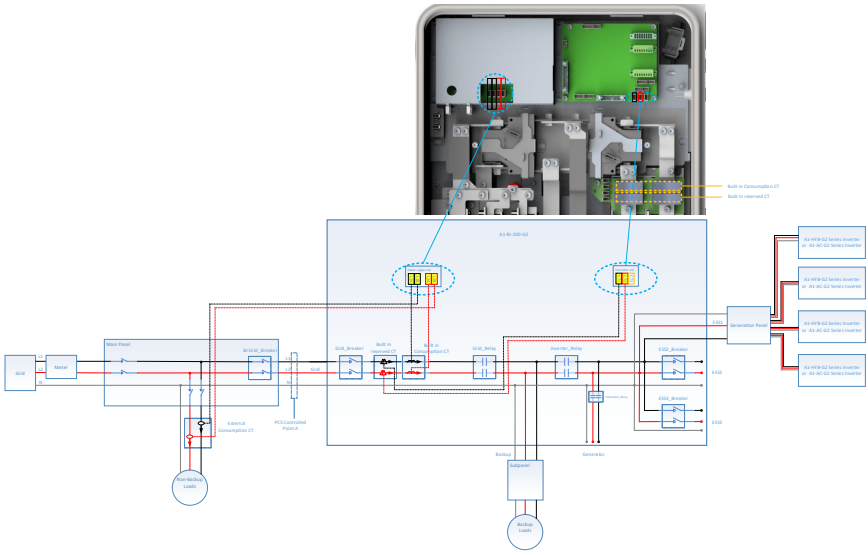
PCS CTs placement location on Other Secondary Power Source side

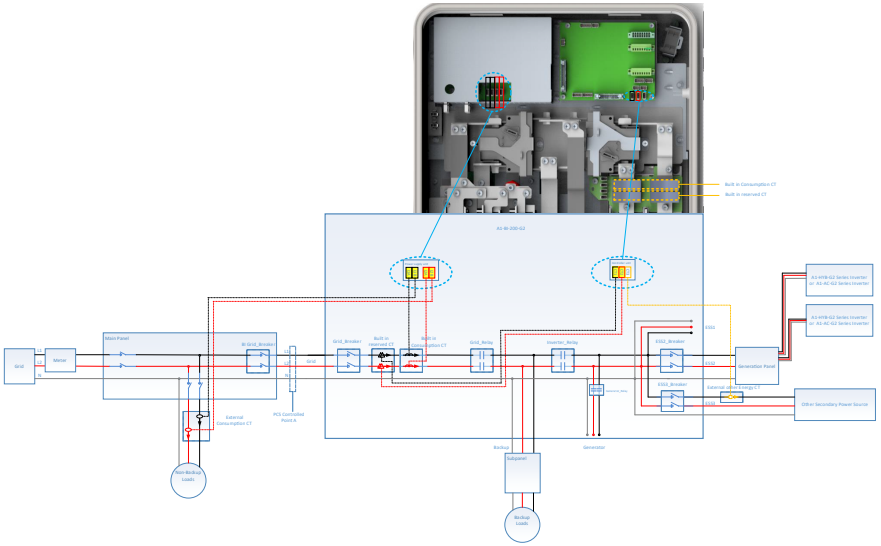


PCS CTs connection on BI

B) Partial backup mode 1

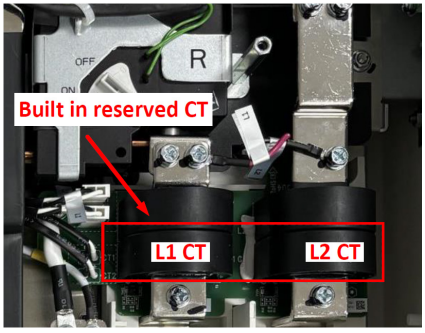
- Wiring diagram



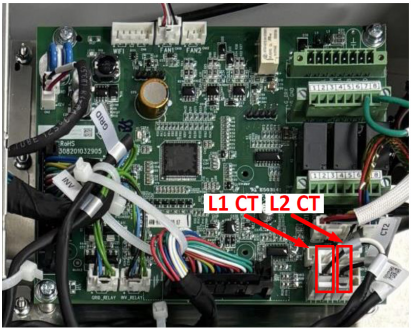


with Other Secondary Power Source

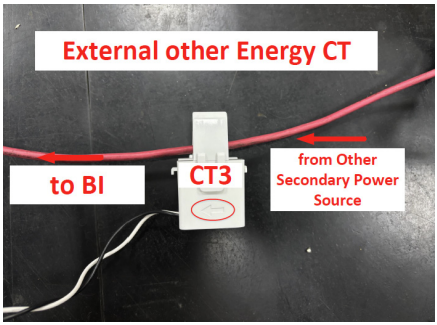
- Image of Actual CTs Placement inside BI



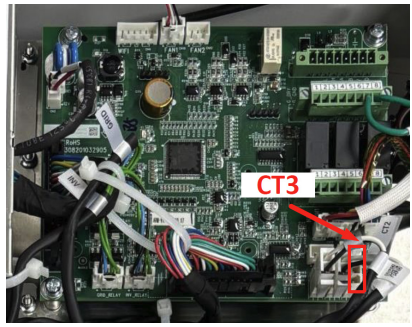
PCS CTs placement location inside BI



PCS CTs connection to BI



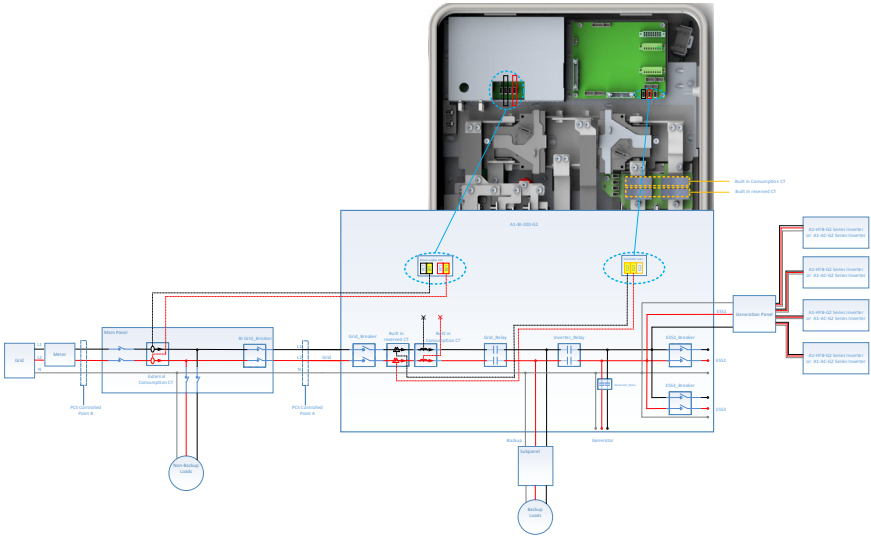
PCS CTs placement location on Other Secondary Power Source side

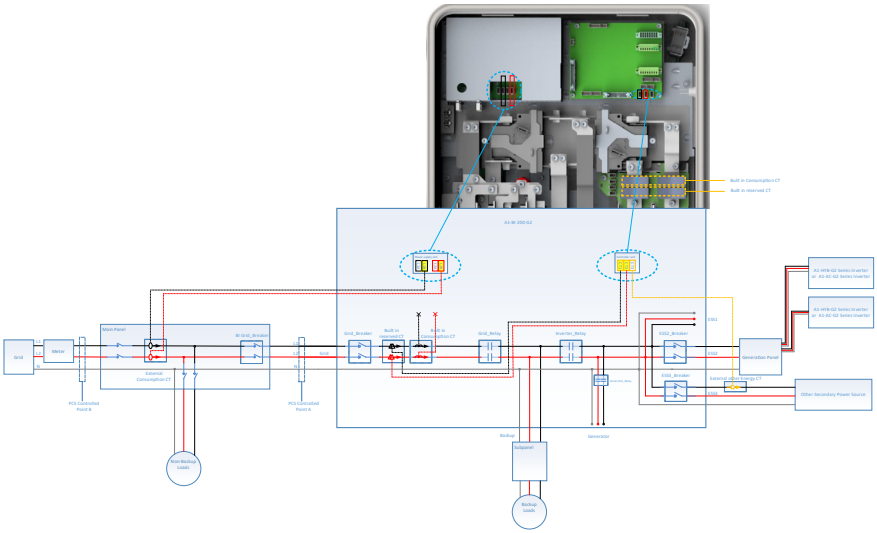


PCS CTs connection on BI

C) Partial backup mode 2

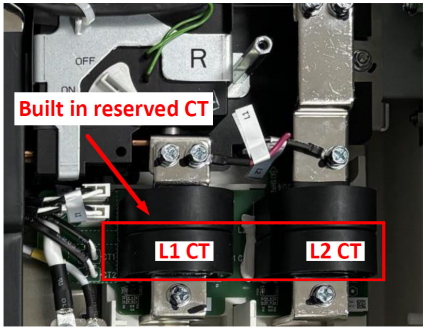
- Wiring diagram



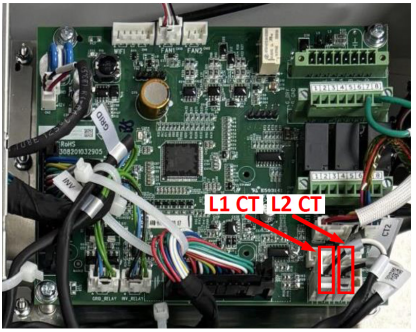


with Other Secondary Power Source

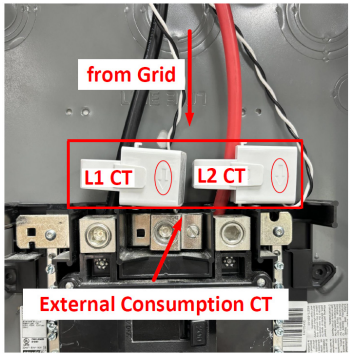
- Image of Actual CTs Placement inside BI



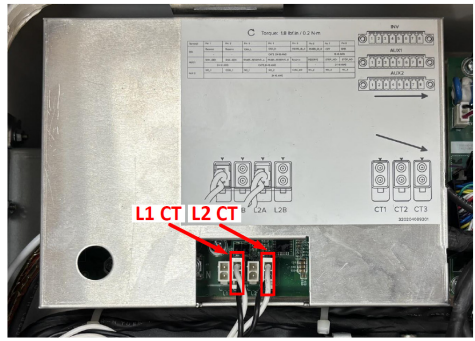
PCS CTs placement location inside BI when the PCS controlled point is A



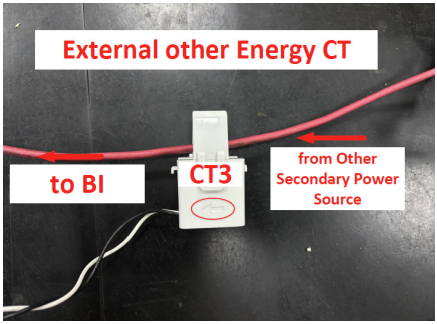
PCS CTs connection to BI



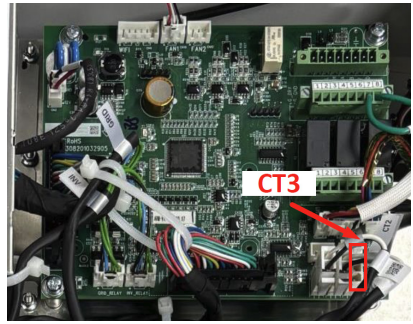
PCS CTs placement location inside Main panel when the PCS controlled point is B



PCS CTs connection to BI



PCS CTs placement location on Other Secondary Power Source side

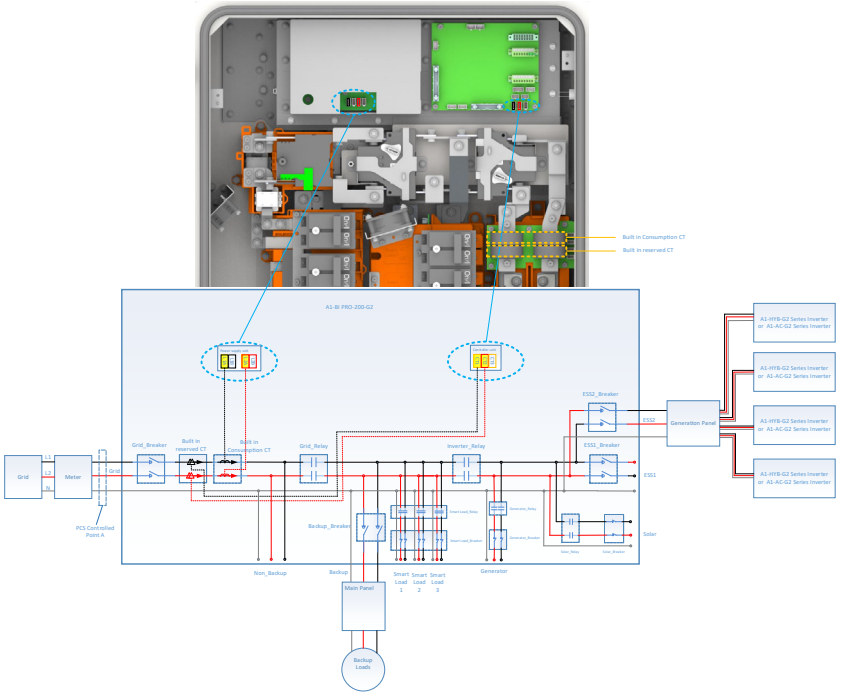


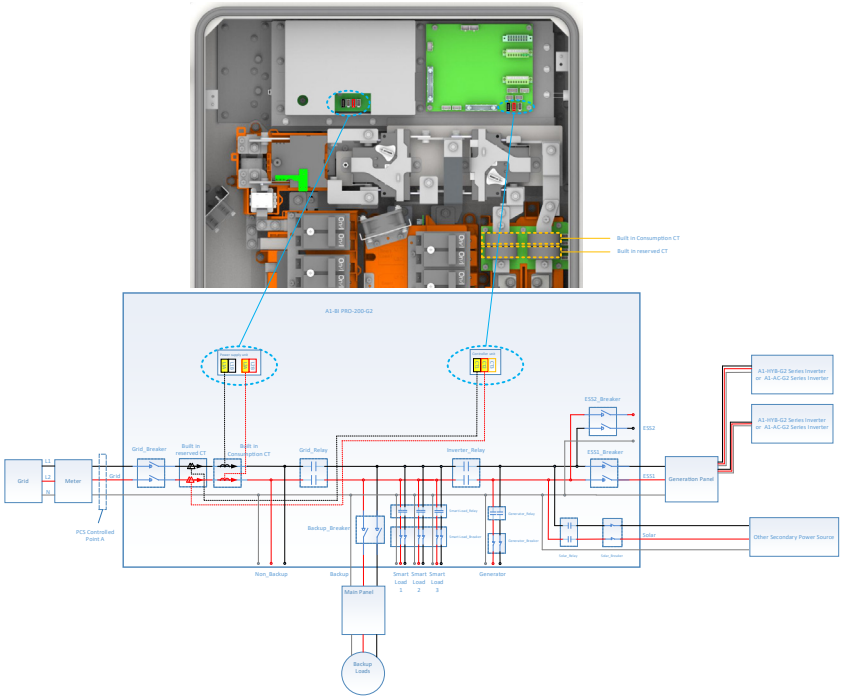
PCS CTs connection on BI

2.2 With A1-BI-PRO-200

A) Whole home backup mode

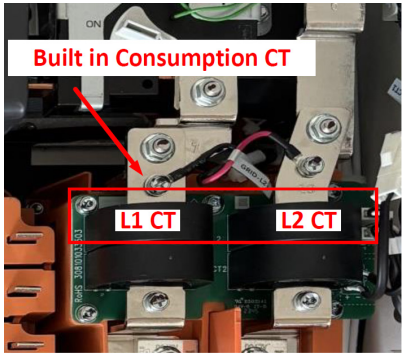
- Wiring diagram



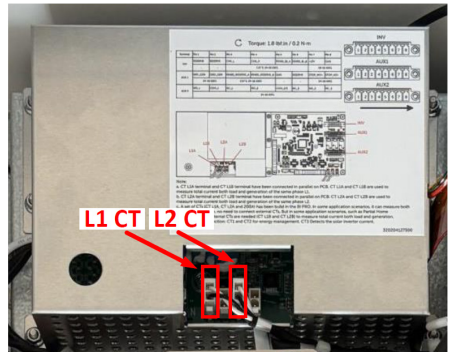


with Other Secondary Power Source

- Image of Actual CTs Placement inside BIPRO



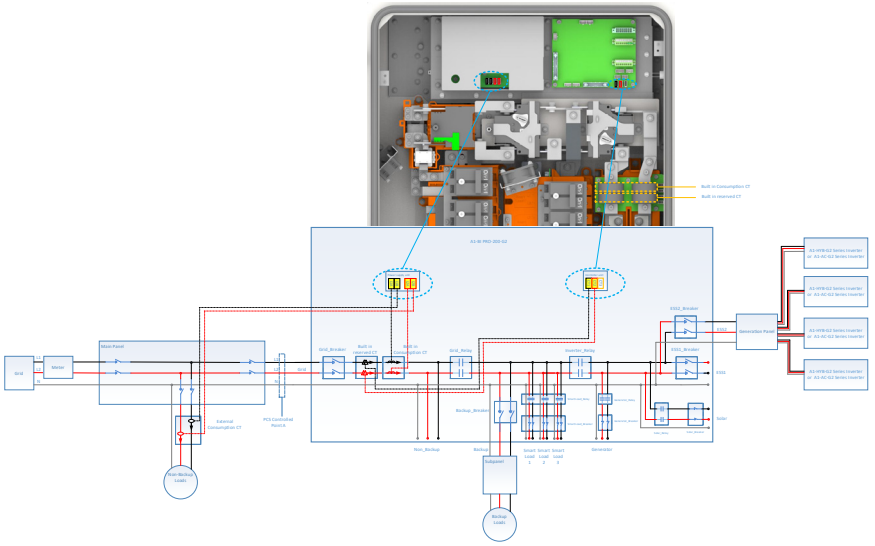
PCS CTs placement location inside BIPRO

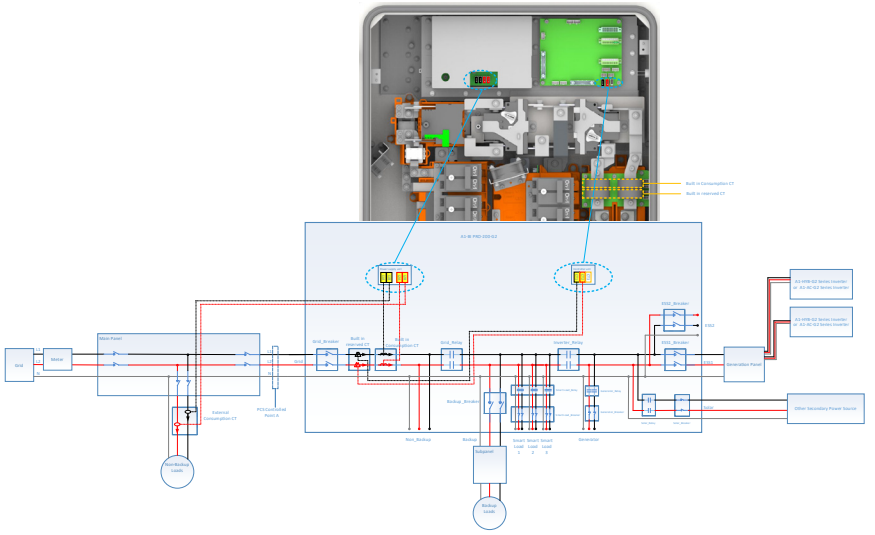


PCS CTs connection to BIPRO

B) Partial backup mode 1

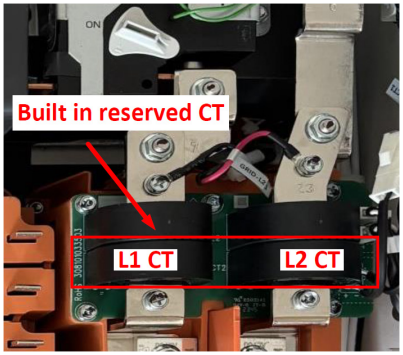
- Wiring diagram



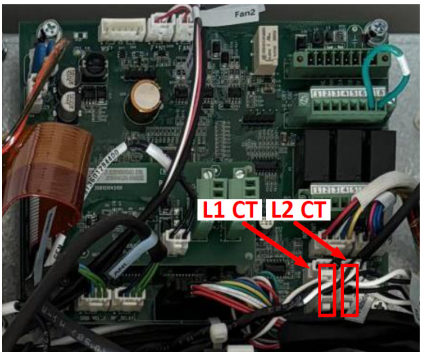


with Other Secondary Power Source

- Image of Actual CT s Placement inside BIPRO



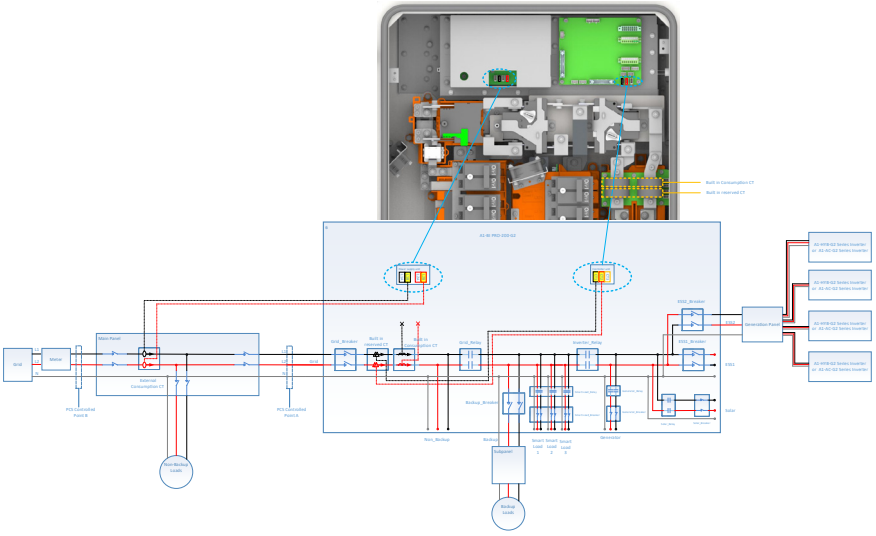
PCS CTs placement location inside BIPRO

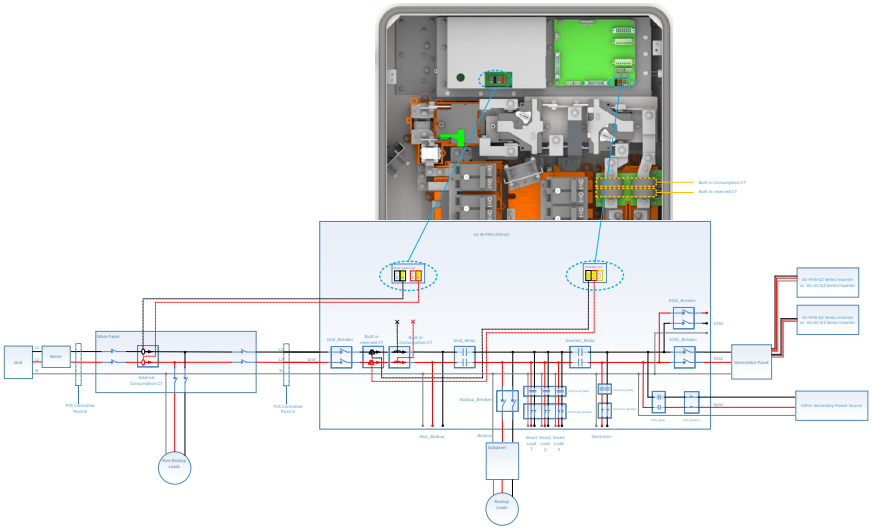


PCS CTs connection to BIPRO

C) Partial backup mode 2

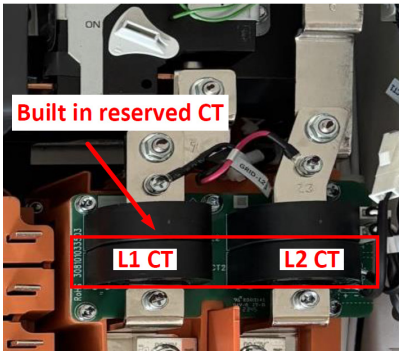
- Wiring diagram



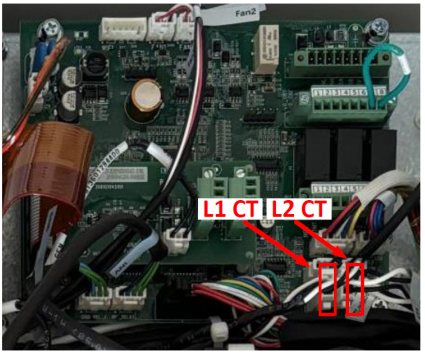


with Other Secondary Power Source

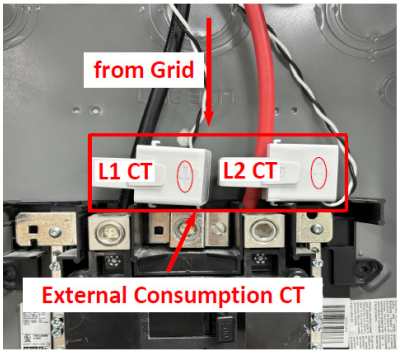
- Image of Actual CTs Placement inside BIPRO



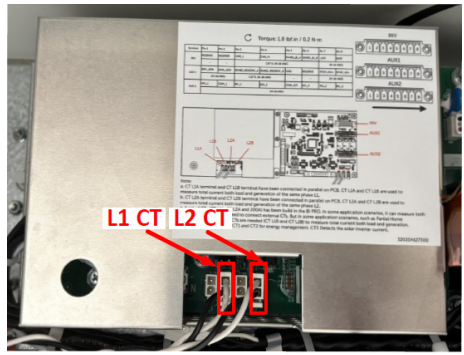
PCS CTs placement location inside BIPRO when the PCS controlled point is A



PCS CTs connection to BIPRO



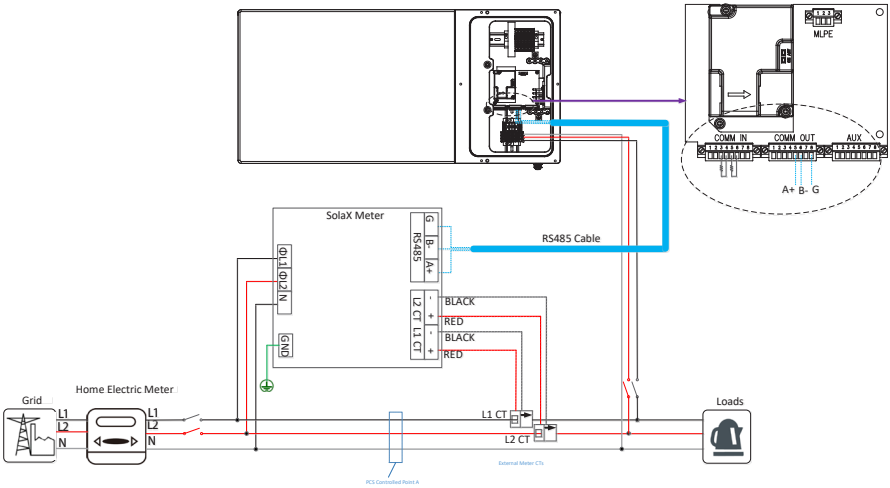
PCS CTs placement location inside Main panel when the PCS controlled point is B



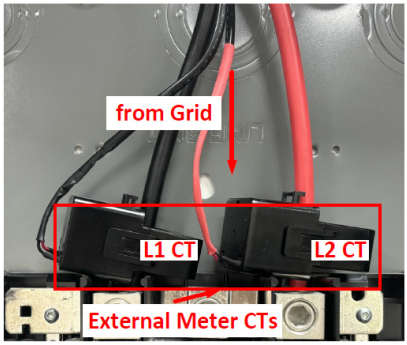
CTs connection to BIPRO

2.3 With Meter and External Meter CTs

- Wiring diagram



- Image of Actual CT s Placement



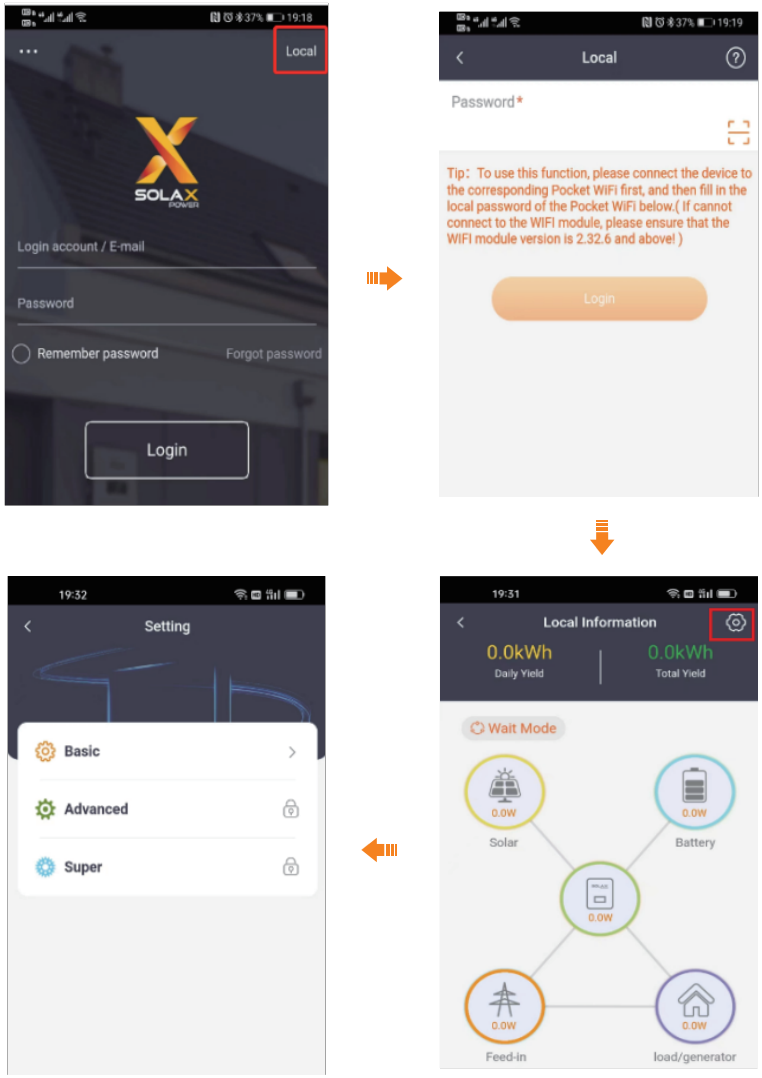
PCS CTs placement location inside Main panel when With Meter and External Meter CTs

PCS CTs connection to Meter

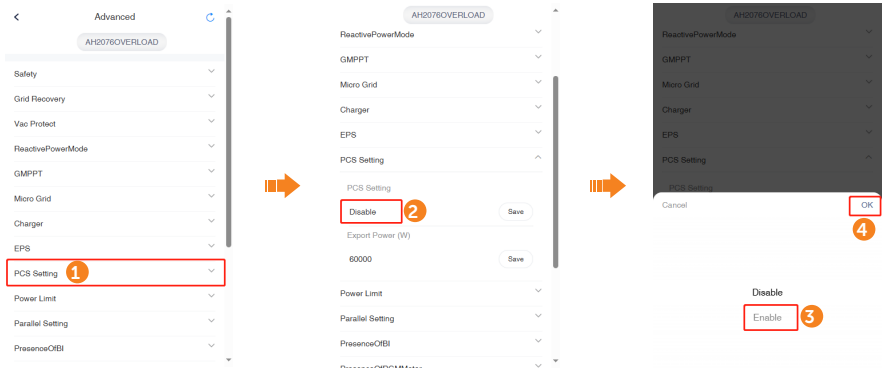
3 APP Setting

Installers can configure the ESS operating mode via App as shown below:

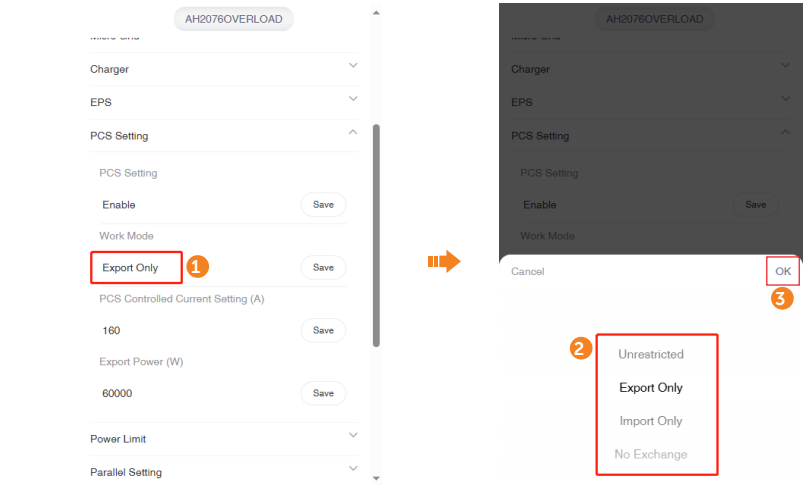
A) Connect to the inverter Wi-Fi signal and use the APP local mode to login to the setting menu.



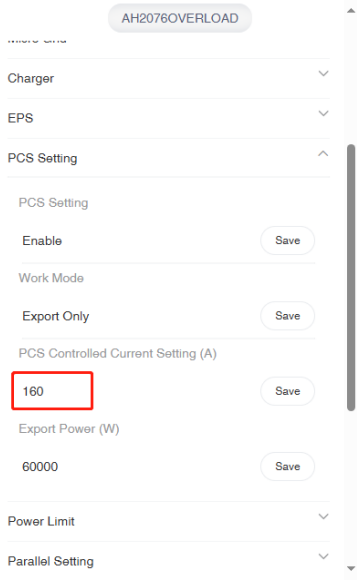
B) Click **Advanced**(Need Password) to enter the setting menu. Click **PCS Setting** to expand the drop-down list. **Enable** the PCS Setting.



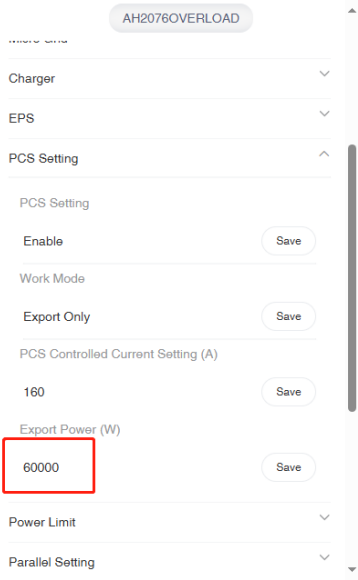
C) Set **Work Mode**.



D) Set PCS Controlled Current: **Advanced** (Need Password) -> **PCS Setting** -> **PCS Controlled Current setting(A)**.

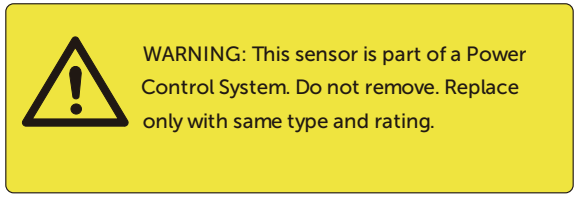


E) Set Export Power: **Advanced** (Need Password) -> **PCS Setting** -> **Export Power(W).**

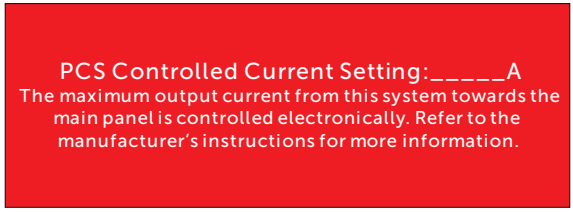


4 Markings, Equipment Information and Important Safety Instructions

For PCS CTs, you must apply the following label to each CT when the system is configured to use PCS-based current limiting.



NOTE!
The PCS controlled current setting for each PCS controlled conductor or bus bar shall be indicated with a field applied marking label on the conductor or in close proximity to the bus bar.



NOTE!
This system is equipped with a power control system (PCS). All PCS controlled busbars or conductors shall be protected with suitably rated overcurrent devices appropriately sized for the busbar rating or conductor ampacity.

NOTE!
The maximum operating currents in controlled busbars or conductors are limited by the settings of the power control system (PCS) and may be lower than the sum of the currents of the connected controlled power sources. The settings of the PCS controlled currents may be used for calculation of the design currents used in the relevant sections of NEC Article 690 and 705.

WARNING!
Only qualified personnel shall be permitted to set or change the setting of the maximum operating current of the PCS. The maximum PCS operating current setting shall not exceed the busbar rating or conductor ampacity of any PCS controlled busbar or conductor.

Contact Information

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