Sungrow SBR HV Battery Series Extension Manual

Disclaimer

The material in this document has been prepared by Sungrow Australia Group Pty. Ltd. ABN 76 168 258 679 and is intended as a guideline to assist solar installers for troubleshooting. It is not a statement or advice on any of the Electrical or Solar Industry standards or guidelines. Please observe all OH&S regulations when working on Sungrow equipment.

<mark>Before adding new modules, the existing modules must be charged/discharged to the same SOC level as the new modules.</mark>

Step 1 – Estimate new module SOC

1.1 Check the new module serial number, the manufacture date is shown on the middle.

EM	134	D	2	21	8	20	0289	DA
				Year	Month	Day		

*If the month represents by letter A/B/C, it equals Oct./Nov./Dec., respectively

1.2 Estimate SOC level by storage time. (Based on 0% SOC lower limit)

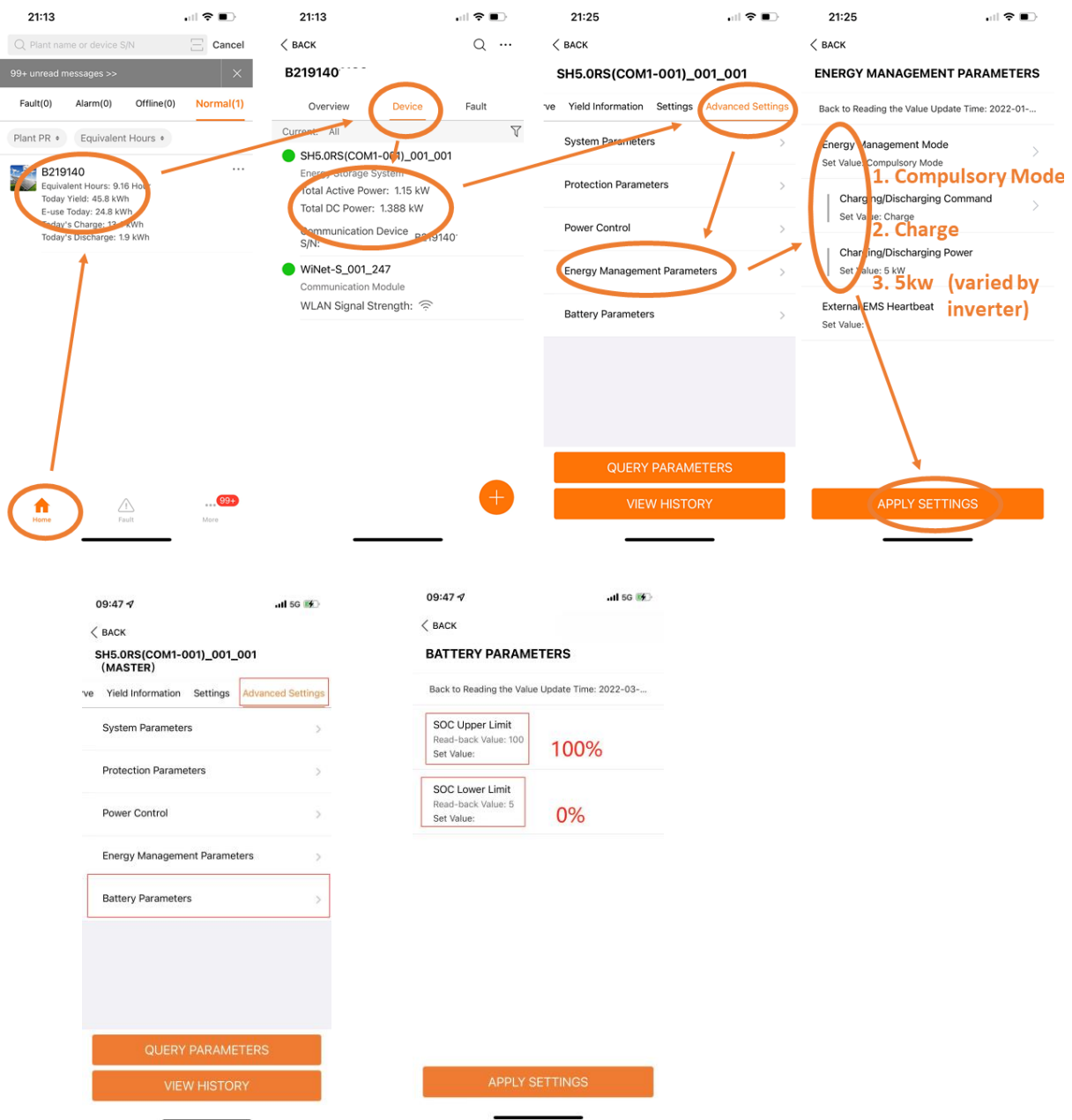| Storage time	Remain estimated SOC
Time	Remain Estimate SOC
<3 month	24.0%
3~4 month	23.0%
4~5 month	22.0%
5~6 month	21.0%
6~7 month	20.5%
7~8 month	20.0%
8~9 month	19.5%

For example: a module manufactured on Aug-2021 is scheduled to be add to site on Jan-2022, then its estimated SOC is 22%. On step 3, set <Reserve SOC for off-grid> to 22%.

Step 2 – Charge existing modules to full

Log in installer account on iSolarCloud app, go to Plant – Device – Select inverter – Advanced Setting – Energy Management Parameters – set

1. Set the battery SOC lower limit to 0 and upper limit to 100%
2. Energy Management Mode: Compulsory
3. Charging/discharging command: Charge
4. Charging/discharging power: 5kw (varied by system)

Apply setting, then wait till battery charged to 100%.

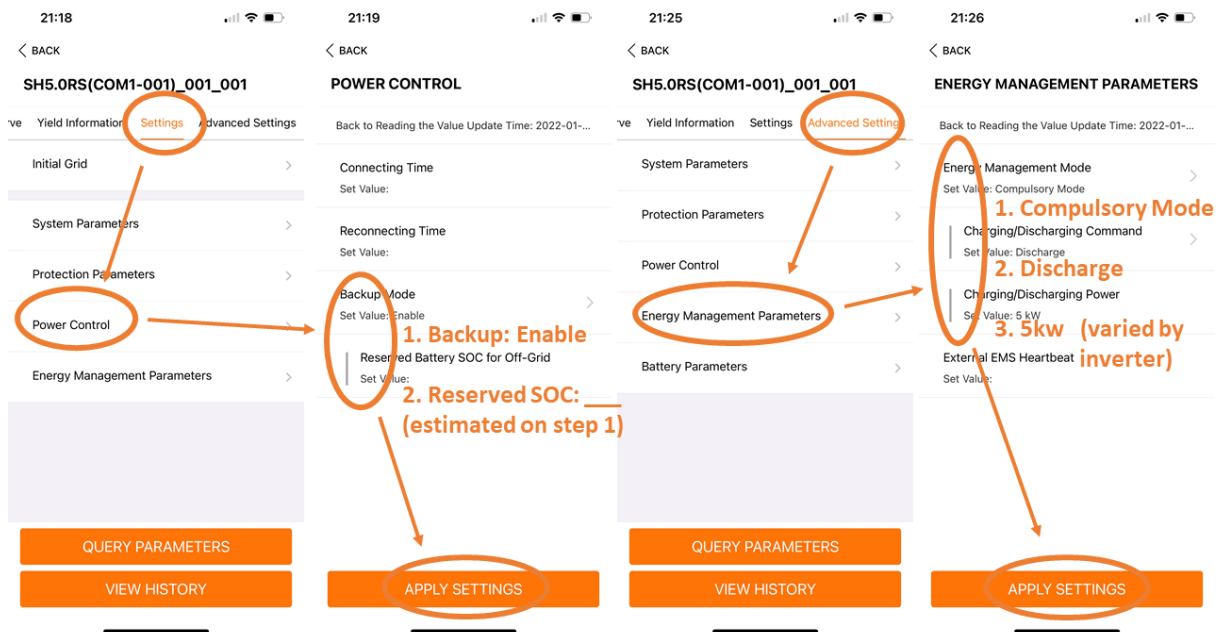# Step 3 – Discharge existing modules to estimated SOC on step 1

on iSolarCloud app, go to Plant – Device – Select inverter – Setting – Power control – Set

1. Backup Mode: Enable
2. Reserved Battery SOC for off-grid: <u>19.5%~24%</u> based on step 1 calculation.

Apply setting, then go to Advanced settings – Energy management parameters – set

1. Energy Management Mode: Compulsory
2. Charging/discharging command: Discharge
3. Charging/discharging power: 5kw (varied by system)

Apply setting, ==turn off solar DC isolator==, wait till battery discharged to set SOC.

Step 4 – Add new modules

Please refer to battery installation manual and user manual for more details.

Step 5 – Restore settings

Go to Setting – Power control – Reserved battery SOC for off-grid, reset to original value. (Default value = 0%, recommended value = 0% ~ 20%)

Go to Advanced setting - Energy Management Parameters – Energy Management Mode, reset to original value. (Default value = Self-Consumption)

Also, Set the battery lower SOC limit back to 5%.

Caution

- max 6 modules can be connected in series for SH3.0/3.6/4.0/5.0/6.0RS, and up to 8 modules can be connected in series for SH5.0/6.0/8.0/10RT.
- This manual applies to on-grid system only. For off-grid system please manually charging and discharging the existing module by turn on/off solar or load.

If the issue persists after following above procedures, please take photos testing on site and contact Sungrow Service Department on 1800 786 476 or email to service@sungrowpower.com.au, Monday- Friday 9am - 5pm (AEDT).