

Methode of Procedure

Pekerjaan:

Instalasi Lithium Battery

Smart Lithium SDA10-48100 End Site



Dikerjakan Oleh:

PT Westindo

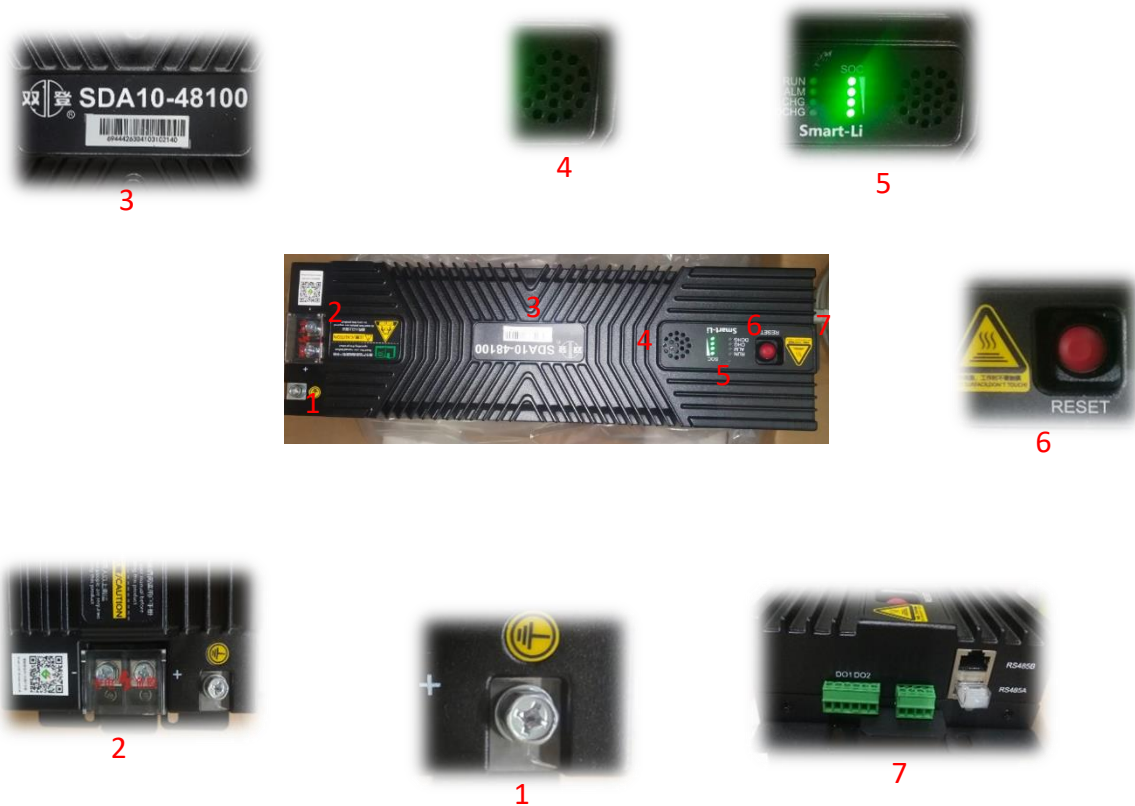
1. PENDAHULUAN

Method of procedure disusun untuk di jadikan Langkah – Langkah atau pedoman dalam suatu pekerjaan Instalasi Smart Lithium Shoto SDA10-48100. Diharapkan dengan adanya procedure ini team pelaksana dilapangan dapat di permudah dalam penyelesaian pekerjaan.

2. IMPACT

Proses pekerjaan instalasi battery tidak akan mengganggu system, karna pekerjaan yang dilakukan hanya berfokus pada pemasangan battery Lithium shoto.

3. DETAIL BATTERY



1	Grounding terminal Battery	5	Led Indicator (SOC, Run, Alarm, Charge dan Discharge)
2	Terminal positive dan negative Battery	6	Tombol Reset atau Tombol ON dan Off Battery
3	SN Battery	7	Terminal komunikasi battery RS 485 A dan B
4	Speker Alarm Battery		

4. DETAIL PEKERJAAN

Secara detail pekerjaan akan dilakukan seperti Langkah – Langkah berikut:

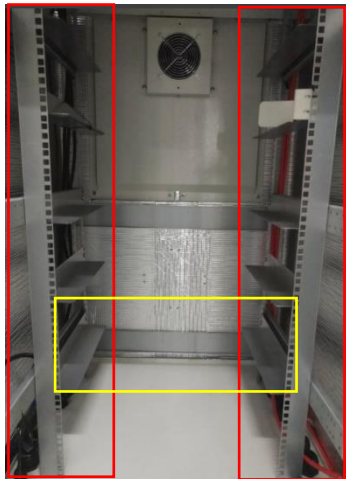
4.1 Persiapan awal

Sebelum pelaksanaan pekerjaan perlu dipersiapkan hal – hal seperti berikut:

- Surat ijin dan kordinasi dengan waspang untuk akses masuk ke site
- Persiapan peralatan (tools) dan sarana pendukung
- Dokumentasi sebelum pekerjaan dan sesudah pekerjaan dan juga SN battery yang dipasang
- Laptop
- Converter RS 485 to USB
- Kabel Panjang Lan (ujung 1 menggunakan komplit RJ 45 dan ujung satu lagi tidak perlu pake RJ 45)
- Kabel LAN komplit kedua sisi menggunakan RJ 45 (LAN straight)

4.2 Instalasi Smartlithium Battery

- Pasangudukan battery pada enclosure dan adjust tinggi dudukan sesuai dengan tinggi battery yang akan dipasang



Pastikan jarak antara kedua dudukan battery bisa dimasukkan battery dan ada sapace antara battery dengan battery yang lain.

Tinggi battery : 3U
Sapce antar battery : 1U

- Pasang Battery
Setelah holder battery sudah dipasang dan tinggsi antar holder sudah disesuaikan, pasang battery sesuai dengan rack rack yang sudah dipasang.



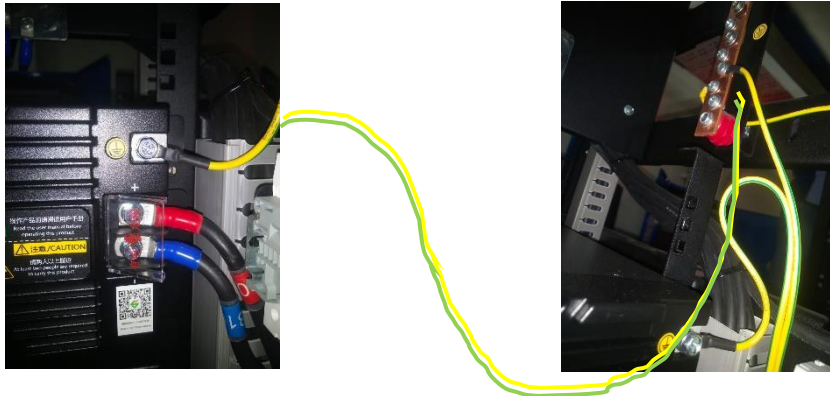
- Pasang cage nuts sesuai dengan lobang yang akan dimounting battery.
- Pasang battery pada rack
- Baut battery agar tidak goyang pada posisi cagenuts yang dipasang

- Sambungkan kabel Power + dan –
Setelah battery sudah di mounting ke enclosure dan battery sudah kokoh, sambungkan kabel Positif dan negative dari rectifier ke battery Terminal.



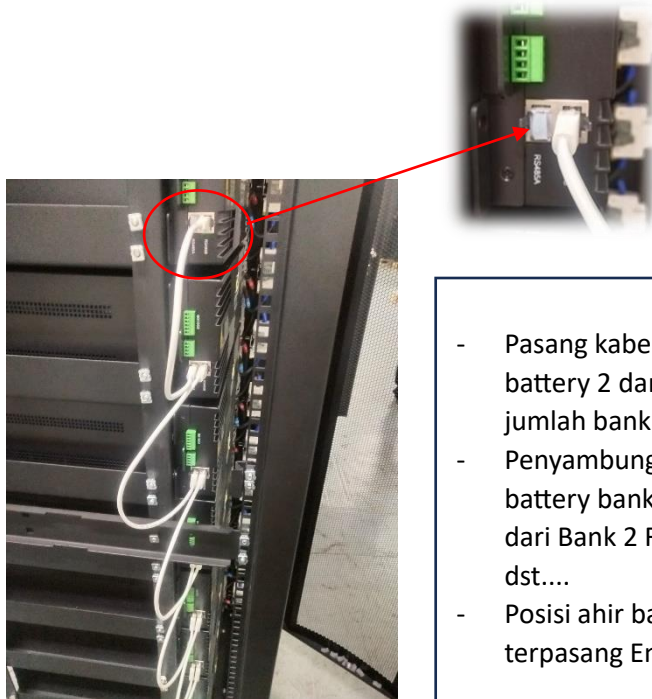
- Pemasangan kabel positif dan negatif dari rectifier harus dipastikan MCB battery dalam keadaan OFF
- Sambungkan kabel positif dari rectifier ke terminal positif pada battery
- Sambungkan kabel negative dari MCB battery rectifier ke terminal negative battery

- Pasang Kabel Grounding Battery



Tarik kabel ground battery dari terminal grounding pada battery ke terminal grounding rectifier.

- Pasang komunikasi kabel antar Battery.



- Pasang kabel komunikasi dari battery 1 ke battery 2 dan seterusnya sesuai dengan jumlah bank battery yang terpasang.
- Penyambungan kabel komunikasi dimulai dari battery bank 1 RS 485 B ke bank 2 RS 485A, dari Bank 2 RS 485B ke Bank 3 RS 485 A, dst....
- Posisi ahir bank battery RS 485 B, pastikan terpasang Endloop (RJ 45 resistor)

- Hidupkan Battery

Instalasi sudah selesai, battery sudah terpasang kokoh, koneksi power sudah terpasang, grounding battery sudah terpasang, nyalakan MCB battery pada rectifier.



- **Meghidupkan**: tekan tombol reset 3 – 5 detik
- **Mematikan**: tekan tombol reset 5 – 10 detik

Ketika LED on mengindikasikan Battery sudah ON.

state	Normal / alarm / protection	RUN	ALM	CHG	DCHG	explain
						
shut down	dormancy	OFF	OFF	OFF	OFF	All OFF
await the opportune	normal	ON	OFF	OFF	OFF	stand by
	alarm	Flash 1	OFF	OFF	OFF	Temperature

4.3 Login software Smart Lithium SDA10 - 48100

- Sambungkan converter RS 485 to USB ke USB port Laptop

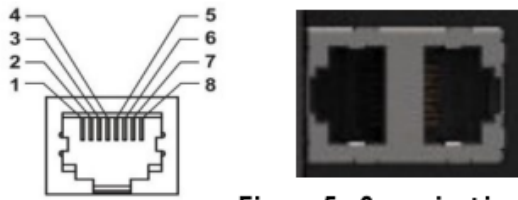
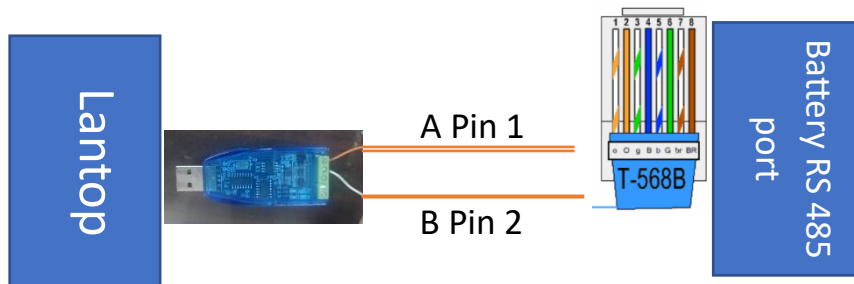
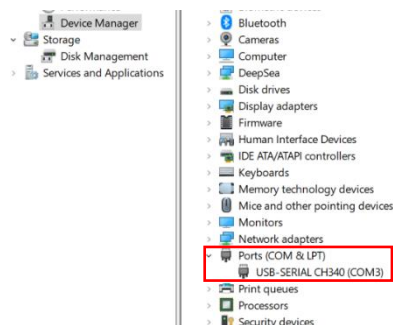
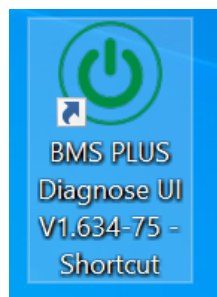


Figure 5. Communication port

order number	Signal name	function	Signal description
1	RS485_A	RS485	RS485 Signal A
2	RS485_B	RS485	RS485 Signal B
3	RS485_A	RS485	RS485 Signal A
4	RS485_B	RS485	RS485 Signal B
5	RS485GND	RS485	RS485 Signal ground
6	NC		
7	CANH	CAN	CAN tall
8	CANL	CAN	CAN low

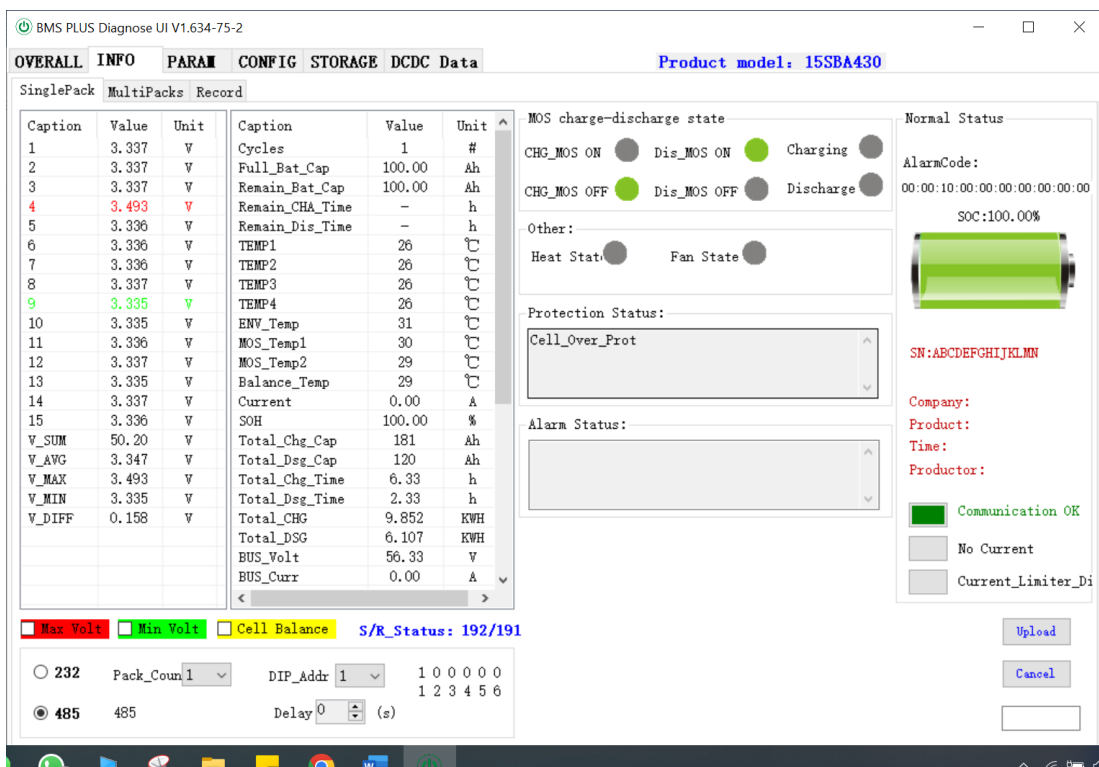


- Buka Software Lithium
Sebelum buka software lithium pastikan Driver converter RS 485 sudah terinstal di Laptop agar supaya port (com) pada software terdeteksi.





Pastikan status software sudah sesuai dengan point 1, 2 dan point 3. Untuk com tergantung dari masing masing laptop.



- Multiple Check Battery

BMS PLUS Diagnose UI V1.634-75-2

Product model: 15SBA430

OVERALL INFO PARAM CONFIG STORAGE DCDC Data

SinglePack MultiPacks Record

Caption	Value	Unit	Caption	Value	Unit
1	3.337	V	Cycles	1	#
2	3.337	V	Full_Bat_Cap	100.00	Ah
3	3.336	V	Remain_Bat_Cap	100.00	Ah
4	3.494	V	Remain_CHA_Time	-	h
5	3.336	V	Remain_Dis_Time	-	h
6	3.336	V	TEMP1	26	°C
7	3.335	V	TEMP2	26	°C
8	3.335	V	TEMP3	26	°C
9	3.336	V	TEMP4	26	°C
10	3.335	V	ENV_Temp	31	°C
11	3.336	V	MOS_Temp1	30	°C
12	3.337	V	MOS_Temp2	29	°C
13	3.335	V	Balance_Temp	29	°C
14	3.336	V	Current	0.00	A
15	3.336	V	SOH	100.00	%
V_SUM	50.20	V	Total_Chg_Cap	181	Ah
V_AVG	3.347	V	Total_Dsg_Cap	120	Ah
V_MAX	3.494	V	Total_Chg_Time	6.33	h
V_MIN	3.335	V	Total_Dsg_Time	2.33	h
V_DIFF	0.159	V	Total_CHG	9.852	KWH
			Total_DSG	6.107	KWH
			BUS_Volt	56.33	V
			BUS_Curr	0.00	A

MOS charge-discharge state

CHG_MOS ON ☐ Dis_MOS ON ☒ Charging ☐

CHG_MOS OFF ☒ Dis_MOS OFF ☐ Discharge ☐

Other:

Heat Stat ☐ Fan State ☐

Protection Status:

Cell_Over_Prot

Alarm Status:

Normal Status

AlarmCode: 00:00:10:00:00:00:00:00:00

SOC:100.00%

SN:ABCDEFGHIJKLMN

Company:

Product:

Time:

Product:

Communication OK ☒

No Current ☐

Current_Limiter_Di ☐

Max Volt ☐ Min Volt ☐ Cell Balance ☒ Status: 362/361

232 Pack_Count 1 DIP_Addr 1 1 0 0 0 0 0

485 485 Delay 0 (s)

Upload Cancel

Klik **DIP_Addr** untuk memilih battery yang mau dicek.

Note : untuk multiple battery pastikan kabel komunikasi antar battery sudah terpasang

- Multiple live Log Battery

BMS PLUS Diagnose UI V1.634-75-2

Product model: 15SBA430

OVERALL INFO PARAM CONFIG STORAGE DCDC Data

SinglePack MultiPacks Record

Caption	Value	Unit	Caption	Value	Unit
1	3.336	V	Cycles	1	#
2	3.337	V	Full_Bat_Cap	100.00	Ah
3	3.337	V	Remain_Bat_Cap	100.00	Ah
4	3.494	V	Remain_CHA_Time	-	h
5	3.335	V	Remain_Dis_Time	-	h
6	3.336	V	TEMP1	26	°C
7	3.335	V	TEMP2	26	°C
8	3.337	V	TEMP3	26	°C
9	3.336	V	TEMP4	26	°C
10	3.335	V	ENV_Temp	31	°C
11	3.335	V	MOS_Temp1	30	°C
12	3.337	V	MOS_Temp2	29	°C
13	3.335	V	Balance_Temp	29	°C
14	3.337	V	Current	0.00	A
15	3.337	V	SOH	100.00	%
V_SUM	50.20	V	Total_Chg_Cap	181	Ah
V_AVG	3.347	V	Total_Dsg_Cap	120	Ah
V_MAX	3.494	V	Total_Chg_Time	6.33	h
V_MIN	3.335	V	Total_Dsg_Time	2.33	h
V_DIFF	0.159	V	Total_CHG	9.852	KWH
			Total_DSG	6.107	KWH
			BUS_Volt	56.34	V
			BUS_Curr	0.00	A

MOS charge-discharge state

CHG_MOS ON ☐ Dis_MOS ON ☒ Charging ☐

CHG_MOS OFF ☒ Dis_MOS OFF ☐ Discharge ☐

Other:

Heat Stat ☐ Fan State ☐

Protection Status:

Cell_Over_Prot

Alarm Status:

Normal Status

AlarmCode: 00:00:10:00:00:00:00:00:00

SOC:100.00%

SN:ABCDEFGHIJKLMN

Company:

Product:

Time:

Product:

Communication OK ☒

No Current ☐

Current_Limiter_Di ☐

Max Volt ☐ Min Volt ☐ Cell Balance ☒ S/R_Status: 476/475

232 Pack_Count 1 DIP_Addr 1 1 0 0 0 0 0

485 485 Delay 0 (s)

Upload Cancel

Pilih **pack_count**, kemudian pilih jumlah battery yang terpasang dilokasi. Setelah itu klik **multipacks**.

BMS PLUS Diagnose UI V1.634-75-2

Product model: **BSP48100B2**

OVERALL INFO **PARAM** CONFIG STORAGE DCDC Data

SinglePack MultiPacks **Record**

ID	ADDR	Rx_Tx	PCB_BARCODE	PACK_BARCODE	Time	CELL1	CELL2	CELL3	CELL4	CELL5	CELL6	CELL7
PACK1	1	11/11	B48100B210T...	ABCDEFGHIJKLMN	2023-11-28-16...	2.666	2.640	2.649	2.652	2.657	2.658	2.647
PACK2	2	31/9	B48100B210T...		2023-11-28-16...	3.336	3.337	3.337	3.493	3.336	3.336	3.335

- Data Log Battery (history)
Klik Storage kemudian klik Read BMS Time.

BMS PLUS Diagnose UI V1.634-75-2

Product model: **15SBA430**

OVERALL INFO PARAM CONFIG **STORAGE** DCDC Data

Read BMS Time 2023-11-28 17:58:48 **Write System Time**

General Storage

Read Record 300 (ms)delay Save Record

0 Save Record

Stop_Read Delete Record

Interval Time 60 (min) Write Read

Time to read BMS system successfully

Setelah diread BMS time, write System Time untuk mencocokkan waktu pada laptop dan BMS.

4.4 Pengaturan Software Battery Smart Li Shoto SDA10 – 48100

- Pengaturan Battery Lithium jika yang terinstal hanya Smartlithium Shoto pada System

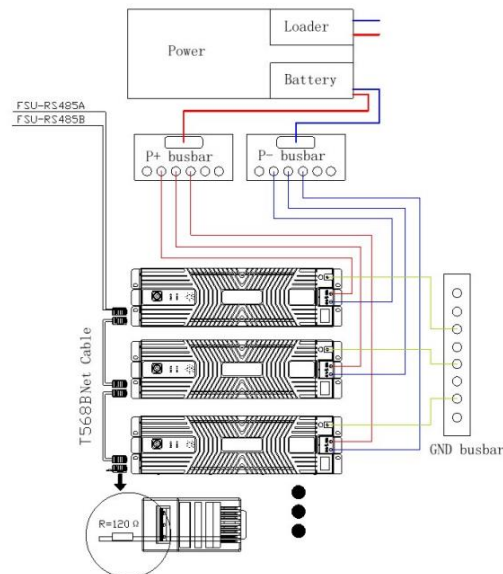
Ketika battery yang terinstal di site hanya smart lithium, rectifier dan Smart lithium harus disetting Sbb:

➤ Rectifier

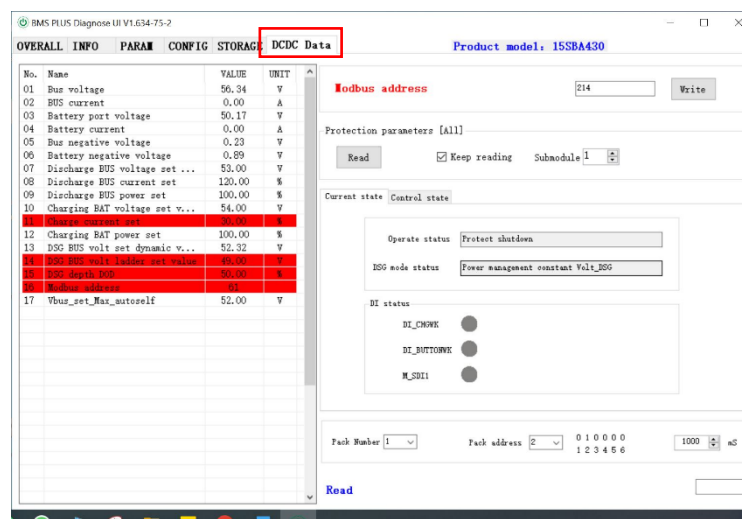
Pastikan arus charging yang masuk ke battery lebih besar dari total charge current set pada battery.

No	Parameter	Setting Value 15S
1	Floating Charge voltage	54V
2	Boost charge voltage	54V
3	Current Limit	0.15C
4	Temp. Compensation	disable

➤ Battery Smart Lithium

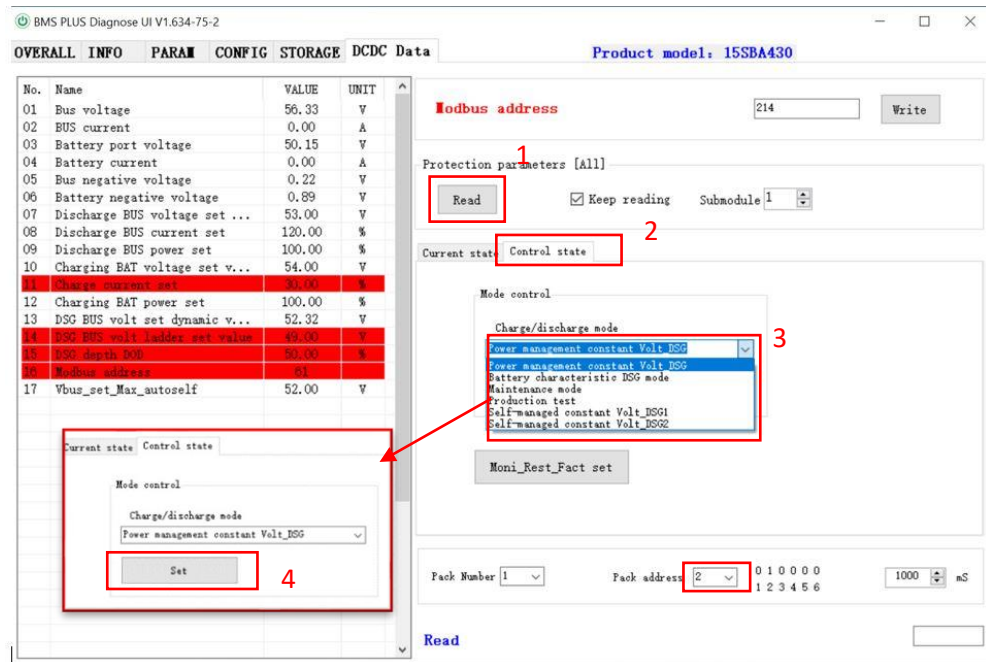


Login ke shoto smart li software, kemudian klik DC/DC Data.



- Pengaturan Mode Charging/Discharging Battery

Klik **Read** kemudian pilih **control state**.



BMS PLUS Diagnose UI V1.634-75-2

Product model: 15SBA430

No.	Name	VALUE	UNIT
01	Bus voltage	56.33	V
02	BUS current	0.00	A
03	Battery port voltage	50.15	V
04	Battery current	0.00	A
05	Bus negative voltage	0.22	V
06	Battery negative voltage	0.89	V
07	Discharge BUS voltage set ...	53.00	V
08	Discharge BUS current set	120.00	%
09	Discharge BUS power set	100.00	%
10	Charging BAT voltage set v...	54.00	V
11	Charging current set	30.00	%
12	Charging BAT power set	100.00	%
13	DSG BUS volt set dynamic v...	52.32	V
14	DSG BUS volt ladder set value	49.00	V
15	DSG depth DSG	50.00	%
16	Modbus address	61	
17	Vbus_set_Max_autoself	52.00	V

Modbus address 214 **Write**

Protection parameters [All]

Read ☒ Keep reading Submodule 1

Current state **Control state**

Mode control

Charge/discharge mode

Power management constant Volt_DSG

Battery characteristic DSG mode

Maintenance mode

Production test

Self-managed constant Volt_DSG1

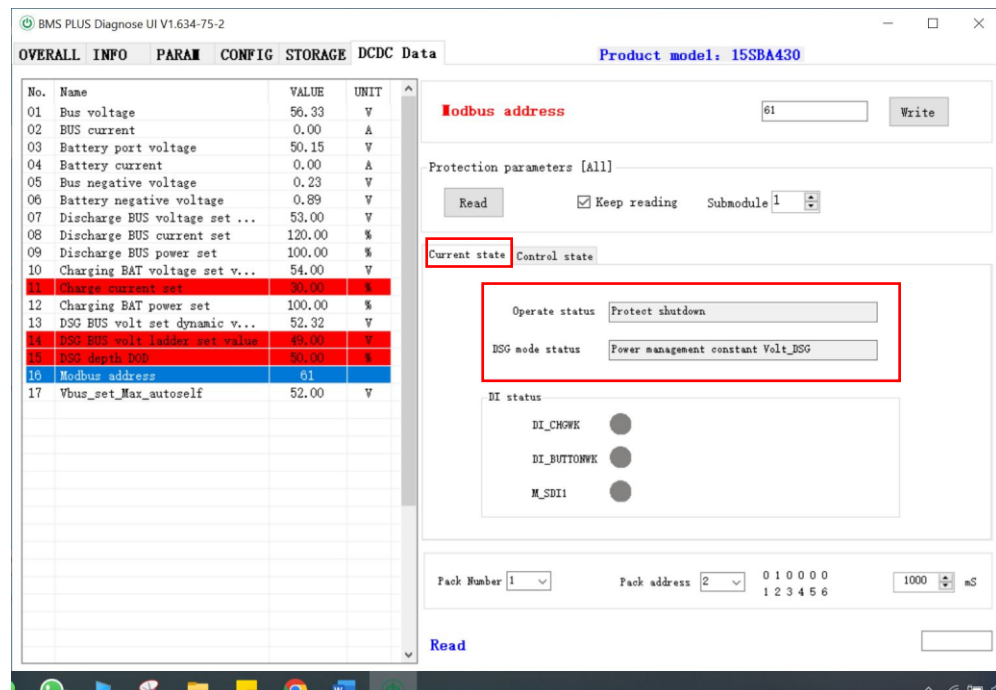
Self-managed constant Volt_DSG2

Moni_Rest_Fact set

Pack Number 1 Pack address 2 0 1 0 0 0 0 1 2 3 4 5 6 1000 ms

Read

Pada Point 3 Mode Control klik panah kebawah dan akan muncul opsi mode yang diinginkan. pilih **Power Management Constant Volt_DSG** setelah itu klik **Set**.



BMS PLUS Diagnose UI V1.634-75-2

Product model: 15SBA430

No.	Name	VALUE	UNIT
01	Bus voltage	56.33	V
02	BUS current	0.00	A
03	Battery port voltage	50.15	V
04	Battery current	0.00	A
05	Bus negative voltage	0.23	V
06	Battery negative voltage	0.89	V
07	Discharge BUS voltage set ...	53.00	V
08	Discharge BUS current set	120.00	%
09	Discharge BUS power set	100.00	%
10	Charging BAT voltage set v...	54.00	V
11	Charging current set	30.00	%
12	Charging BAT power set	100.00	%
13	DSG BUS volt set dynamic v...	52.32	V
14	DSG BUS volt ladder set value	49.00	V
15	DSG depth DSG	50.00	%
16	Modbus address	61	
17	Vbus_set_Max_autoself	52.00	V

Modbus address 61 **Write**

Protection parameters [All]

Read ☒ Keep reading Submodule 1

Current state **Control state**

Operate status Protect shutdown

DSG mode status Power management constant Volt_DSG

DI status

DI_CHKWK

DI_BUTTONWK

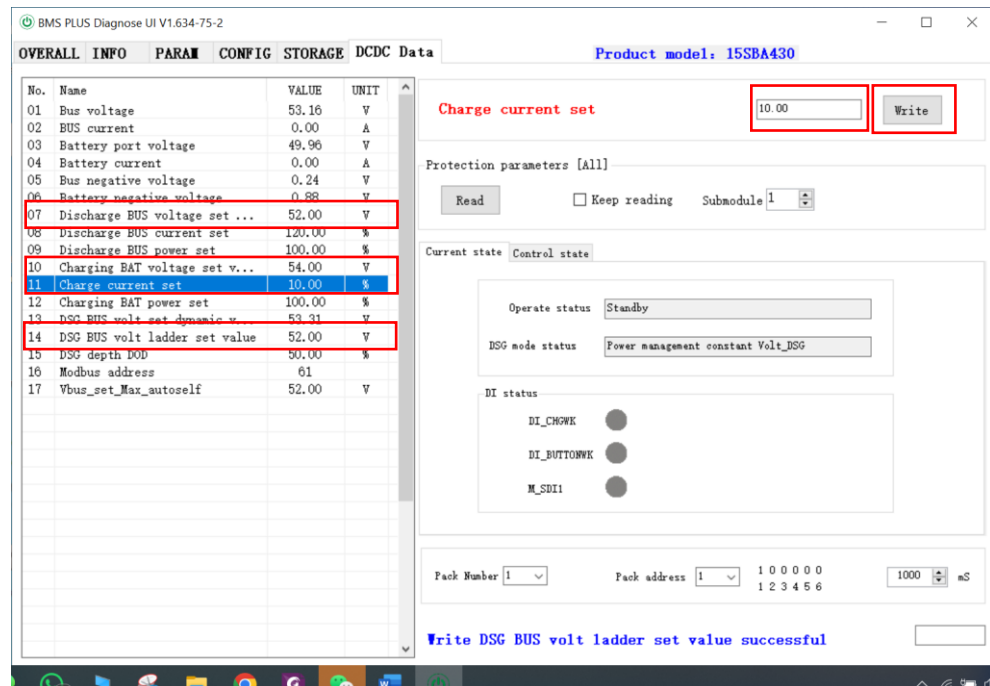
M_SDI1

Pack Number 1 Pack address 2 0 1 0 0 0 0 1 2 3 4 5 6 1000 ms

Read

Setelah tombol Set di klik, klik Current state kemudian klik Read. Akan muncul status DSG mode Status yang aktif seperti gambar.

- Pengaturan Arus dan Tegangan Battery



BMS PLUS Diagnose UI V1.634-75-2

OVERALL INFO PARAM CONFIG STORAGE DCDC Data Product model: 15SBA430

No.	Name	VALUE	UNIT
01	Bus voltage	53.16	V
02	BUS current	0.00	A
03	Battery port voltage	49.96	V
04	Battery current	0.00	A
05	Bus negative voltage	0.24	V
06	Battery negative voltage	0.88	V
07	Discharge BUS voltage set ...	52.00	V
08	Discharge BUS current set	120.00	%
09	Discharge BUS power set	100.00	%
10	Charging BAT voltage set v...	54.00	V
11	Charge current set	10.00	%
12	Charging BAT power set	100.00	%
13	DSG BUS volt set dynamic v	53.31	V
14	DSG BUS volt ladder set value	52.00	V
15	DSG depth DOU	50.00	%
16	Modbus address	61	
17	Vbus_set_Max_autoself	52.00	V

Charge current set 10.00 Write

Protection parameters [All]

Read ☐ Keep reading Submodule 1

Current state Control state

Operate status Standby

DSG mode status Power management constant Volt_DSG

DI status

DI_CH2WK ☐

DI_BUTTONWK ☐

M_SDI1 ☐

Pack Number 1 Pack address 1 1 0 0 0 0 1 2 3 4 5 6 1000 mS

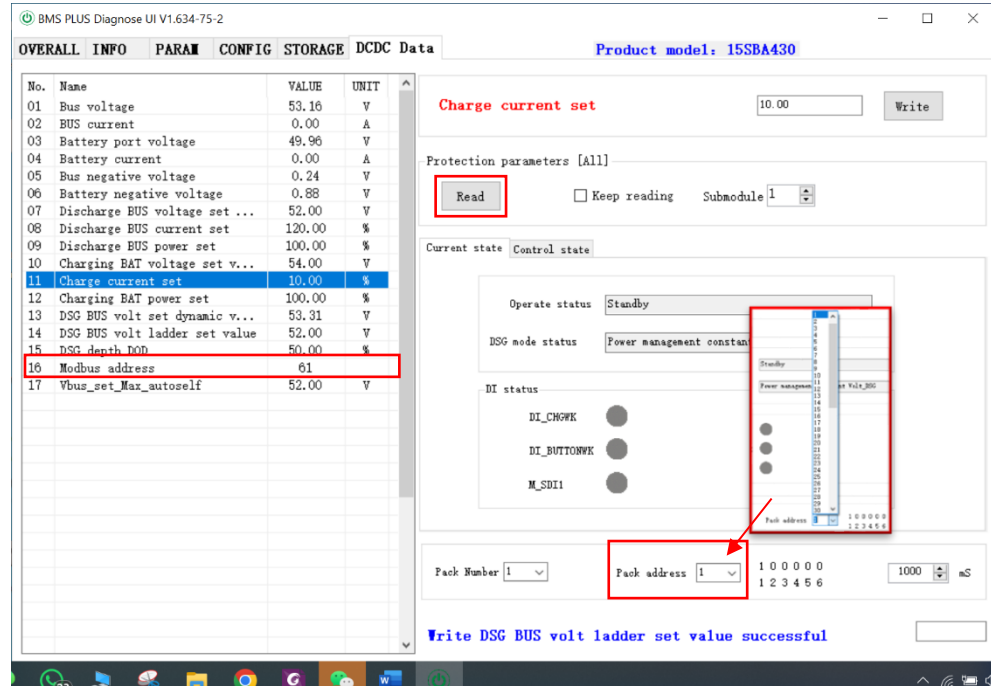
Write DSG BUS volt ladder set value successful

Lakukan pengaturan pada DCDC converter seperti gambar diatas.

07 Discharge BUS Voltage Set Value	52.00V
10 Charging BAT Voltage set value	54.00V
11 Charge Current Set	10%
14 DSG BUS Volt Ladder set Value	52.00V

Pilih opsi yang akan di rubah kemudian rubah nilai pada kolom bagian kanan atas kemudian klik write.

- Pengaturan Modbus Address Battery



The screenshot shows the BMS PLUS Diagnose UI V1.634-75-2 interface. The 'PARAM' tab is selected, displaying a list of parameters. Parameter 16, 'Modbus address', is highlighted with a red box, showing a value of 61. To the right, the 'Charge current set' is configured to 10.00. Below this, the 'Protection parameters [All]' section has a 'Read' button highlighted with a red box. The 'Current state' section shows 'Operate status' as 'Standby' and 'DSG mode status' as 'Power management constant'. A red box highlights the 'Pack address' dropdown menu, which is set to 1. Below this, the 'Pack Number' is 1 and the 'Pack address' is 1. The 'Write DSG BUS volt ladder set value successful' message is displayed at the bottom.

No.	Name	VALUE	UNIT
01	Bus voltage	53.16	V
02	BUS current	0.00	A
03	Battery port voltage	49.96	V
04	Battery current	0.00	A
05	Bus negative voltage	0.24	V
06	Battery negative voltage	0.88	V
07	Discharge BUS voltage set ...	52.00	V
08	Discharge BUS current set	120.00	%
09	Discharge BUS power set	100.00	%
10	Charging BAT voltage set v...	54.00	V
11	Charge current set	10.00	%
12	Charging BAT power set	100.00	%
13	DSG BUS volt set dynamic v...	53.31	V
14	DSG BUS volt ladder set value	52.00	V
15	DSG_depth DOD	50.00	%
16	Modbus address	61	
17	Vbus_set_Max_autoself	52.00	V

Pada points 16 rubah Modbus Address dari 214 menjadi 61 kemudian klik write.

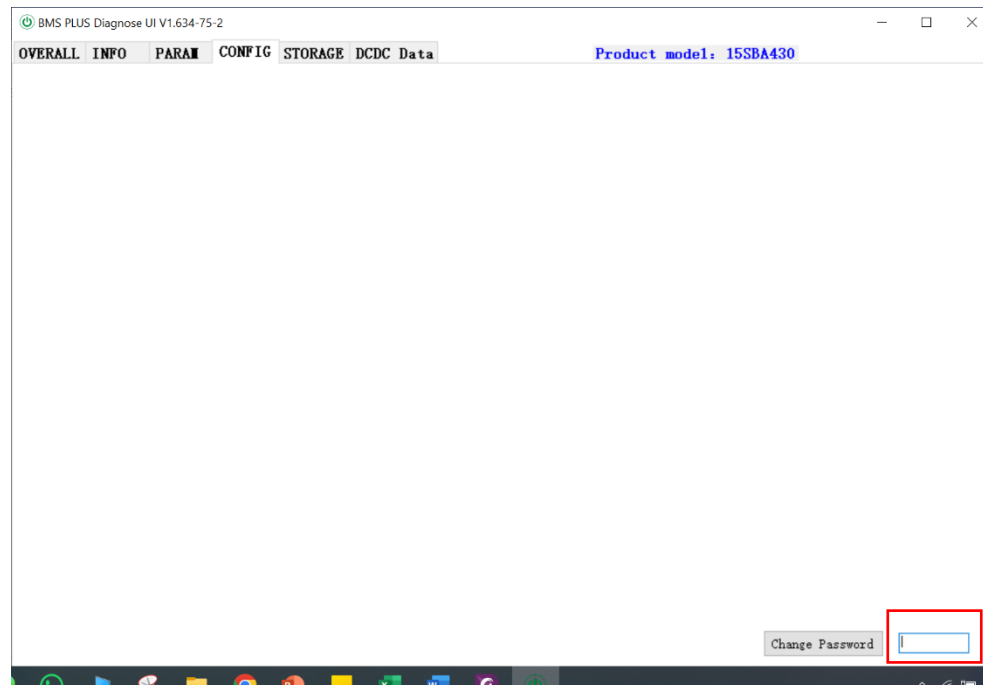
lakukan proses yang sama ke Battery yang lain sesuai dengan proses diatas dengan memilih **Pack Address**. pilih Battery berikutnya yang akan di setting kemudian klik read.

- Aktivasi Anti – Teft

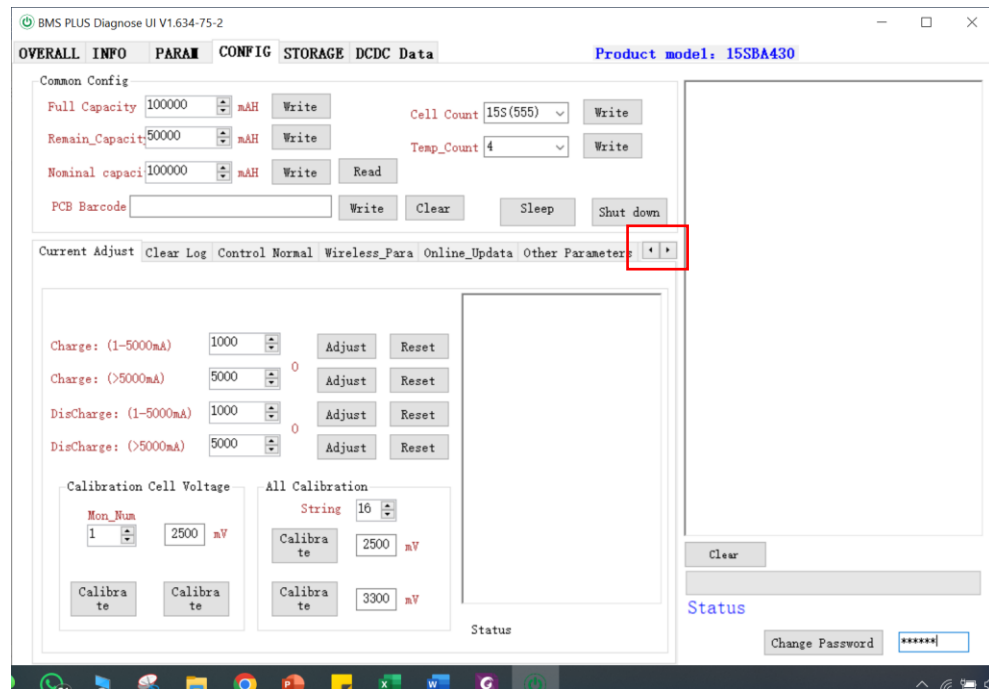
Setelah battery sudah terinstal dengan baik pada enclosure atau cabinet rectifier, aktifkan anti teft Fuction pada battery.



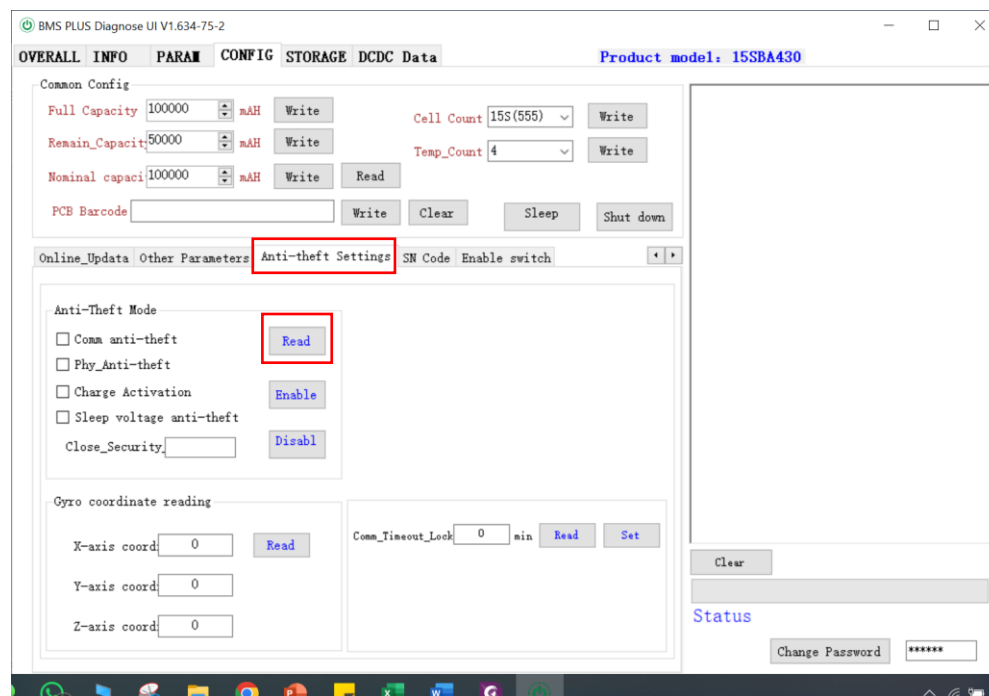
Login ke Software battery Smart Lithium Shoto. Kemudian Klik CONFIG.



Masukkan Pasword **888888** untuk membuka Menu CONFIG

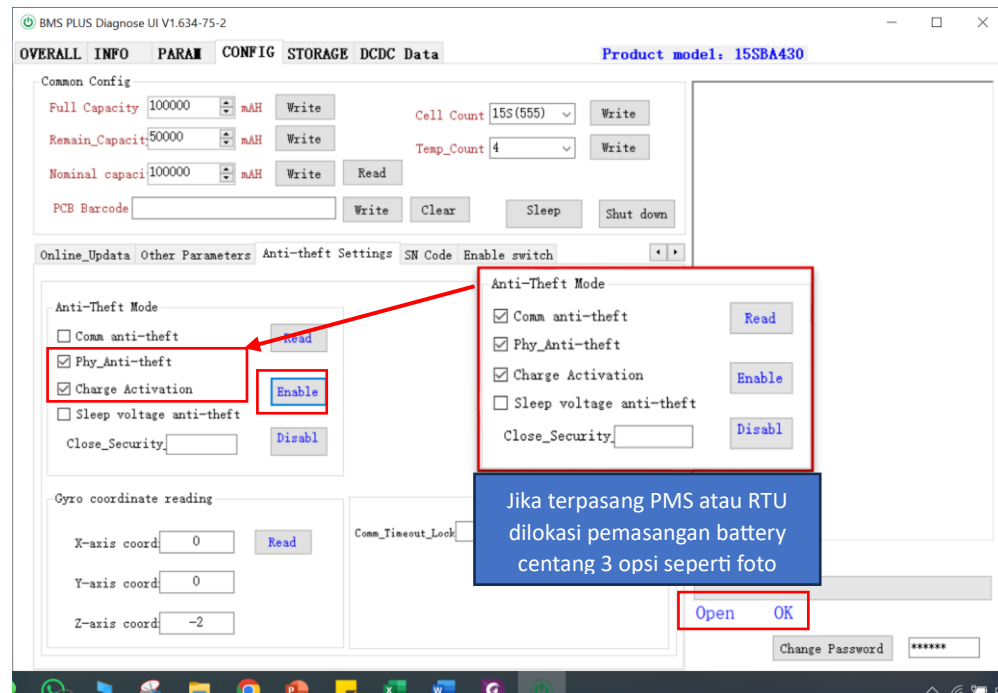


Tampilan menu Config akan muncul seperti pada gambar. Klik tanda panah ke kanan sampai ketemu menu Anti – theft.

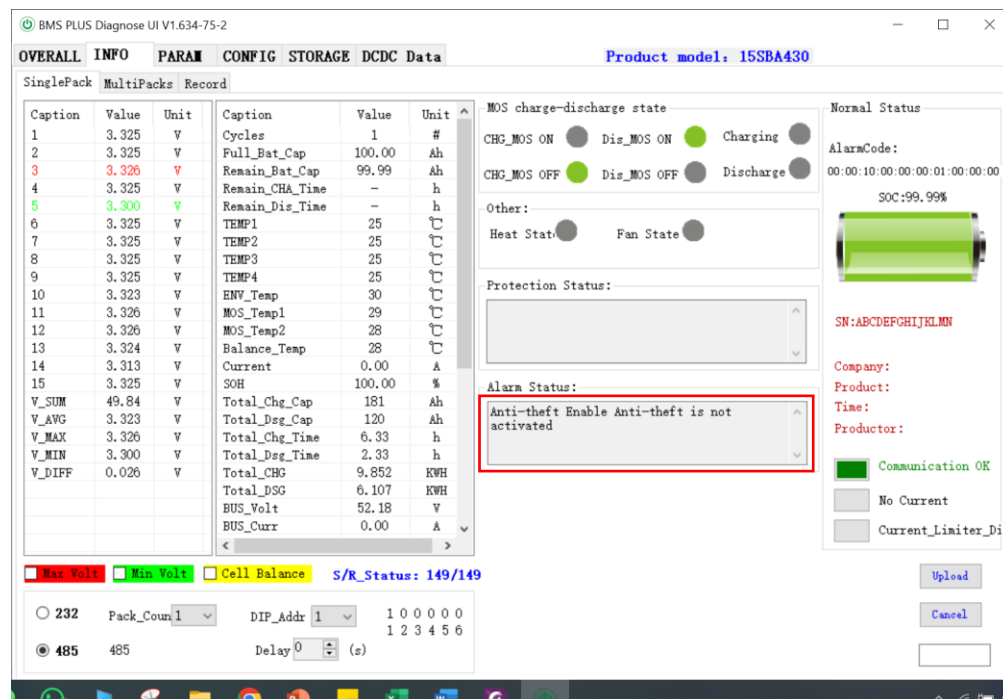


Klik Read untuk memastikan settingan default battery. Setelah itu centang **Comm anti – theft** kemudian **Phy_Anti – Theft** dan **Charge Activation** kemudian klik Enable.

Jika tidak ada komunikasi antara battery dengan PMS (power monitoring system atau RTU), **Comm anti – theft** tidak perlu di centang.



Setelah di **centang**, klik **enable**. Staus akan muncul Open OK seperti pada gambar.



Akan muncul status seperti pada foto. Jika battery penuh status akan berubah Ketika terjadi charging pada battery, Dimana arus charging harus lebih dari 5A. Jika battery belum charging penuh, charge battery dan status akan berubah menjadi active.

Product model: BA430

OVERALL INFO PARAM CONFIG STORAGE DCDC Data

SinglePack MultiPacks Record

Caption	Value	Unit	Caption	Value	Unit
1	3.372	V	Cycles	0	#
2	3.373	V	Full_Bat_Cap	100.00	Ah
3	3.372	V	Remain_Bat_Cap	81.54	Ah
4	3.371	V	Remain_CHA_Time	1.16	h
5	3.376	V	Remain_Dis_Time	-	h
6	3.373	V	TEMP1	20	°C
7	3.373	V	TEMP2	20	°C
8	3.374	V	TEMP3	21	°C
9	3.379	V	TEMP4	21	°C
10	3.372	V	ENV_Temp	25	°C
11	3.377	V	MOS_Temp1	25	°C
12	3.372	V	MOS_Temp2	25	°C
13	3.375	V	Balance_Temp	23	°C
14	3.378	V	Current	15.92	A
15	3.376	V	SOH	100.00	%
V_SUM	50.62	V	Total_Chg_Cap	11	Ah
V_AVG	3.375	V	Total_Dsg_Cap	0	Ah
V_MAX	3.379	V	Total_Chg_Time	1.67	h
V_MIN	3.371	V	Total_Dsg_Time	0.87	h
V_DIFF	0.008	V	Total_CHG	0.653	KWH
			Total_DSG	0.000	KWH

Max Volt ☒ Min Volt ☐ Cell Balance ☐ S/R_Status: 71/65

232 Pack_Count 1 DIP_Addr 1 1 0 0 0 0 1 2 3 4 5 6

485 485 Delay 0 (s)

MOS charge-discharge state

CHG_MOS ON ☒ Dis_MOS ON ☒ Charging ☒

CHG_MOS OFF ☐ Dis_MOS OFF ☐ Discharge ☐

Other:

Heat Stat ☐ Fan State ☐

Protection Status:

Alarm Status:

Anti-theft Enable Anti-theft is not activated

Normal Status

AlarmCode: 00:00:00:01:00:00:01:00:00:00

SOC:81.54%

SN:

Company:

Product:

Time:

Producer:

Communication OK ☒

Charging Status ☒

Current_Limiter_Di ☐

Upload

Cancel

Product model: BA430

OVERALL INFO PARAM CONFIG STORAGE DCDC Data

SinglePack MultiPacks Record

Caption	Value	Unit	Caption	Value	Unit
1	3.393	V	Cycles	0	#
2	3.394	V	Full_Bat_Cap	100.00	Ah
3	3.391	V	Remain_Bat_Cap	81.72	Ah
4	3.390	V	Remain_CHA_Time	1.15	h
5	3.396	V	Remain_Dis_Time	-	h
6	3.392	V	TEMP1	21	°C
7	3.392	V	TEMP2	20	°C
8	3.393	V	TEMP3	21	°C
9	3.397	V	TEMP4	21	°C
10	3.391	V	ENV_Temp	25	°C
11	3.396	V	MOS_Temp1	29	°C
12	3.390	V	MOS_Temp2	26	°C
13	3.393	V	Balance_Temp	23	°C
14	3.397	V	Current	15.93	A
15	3.394	V	SOH	100.00	%
V_SUM	50.90	V	Total_Chg_Cap	11	Ah
V_AVG	3.393	V	Total_Dsg_Cap	0	Ah
V_MAX	3.397	V	Total_Chg_Time	1.67	h
V_MIN	3.390	V	Total_Dsg_Time	0.87	h
V_DIFF	0.007	V	Total_CHG	0.660	KWH
			Total_DSG	0.000	KWH

Max Volt ☒ Min Volt ☐ Cell Balance ☐ S/R_Status: 112/106

232 Pack_Count 1 DIP_Addr 1 1 0 0 0 0 1 2 3 4 5 6

485 485 Delay 0 (s)

MOS charge-discharge state

CHG_MOS ON ☒ Dis_MOS ON ☒ Charging ☒

CHG_MOS OFF ☐ Dis_MOS OFF ☐ Discharge ☐

Other:

Heat Stat ☐ Fan State ☐

Protection Status:

Alarm Status:

Anti-theft Enable Anti-theft deployment success

Normal Status

AlarmCode: 00:00:00:01:00:00:03:00:00:00

SOC:81.72%

SN:

Company:

Product:

Time:

Producer:

Communication OK ☒

Charging Status ☒

Current_Limiter_Di ☐

Upload

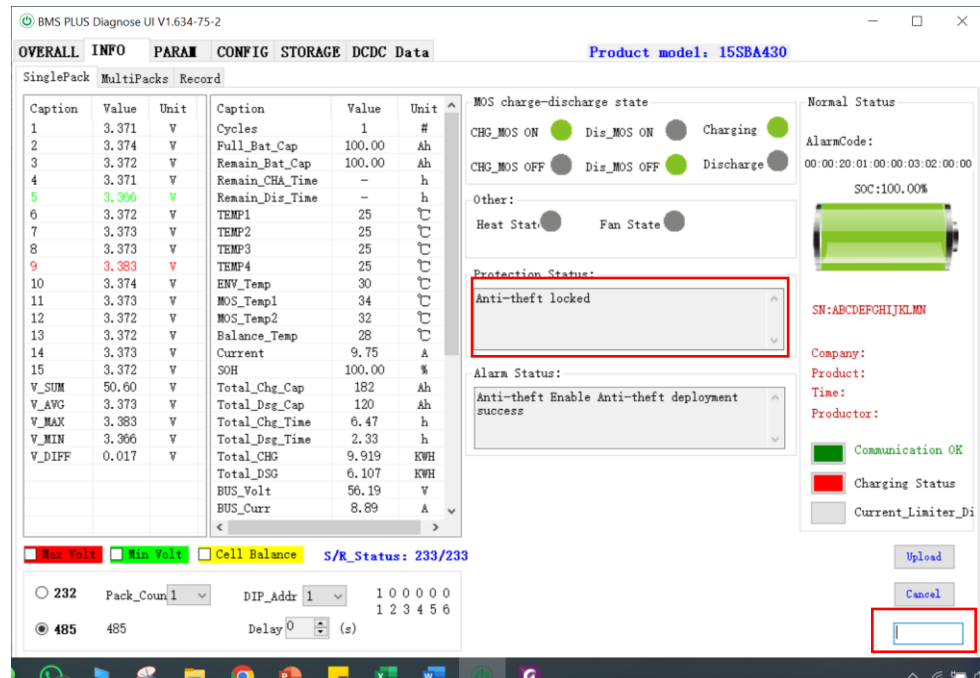
Cancel

Anti theft active setelah battery charging lebih dari 30s diatas 5A arus charging battery.

Anti – theft akan active jika kabel komunikasi antara battery dan PMS (RTU) tidak komunikasi atau tercabutkabel komunikasi antara battery dan PMS. Dan jika anti – theft akan active jika battery terangkat diatas 35° (derajat).

- Disable Anti – Teft

Battery akan Stop discharge jika battery anti – teft active dan battery hanya bisa charging.



BMS PLUS Diagnose UI V1.634-75-2

OVERALL INFO PARAM CONFIG STORAGE DCDC Data Product model: 15SBA430

SinglePack MultiPacks Record

Caption	Value	Unit	Caption	Value	Unit
1	3.371	V	Cycles	1	#
2	3.374	V	Full_Bat_Cap	100.00	Ah
3	3.372	V	Remain_Bat_Cap	100.00	Ah
4	3.371	V	Remain_CHA_Time	-	h
5	3.366	V	Remain_Dis_Time	-	h
6	3.372	V	TEMP1	25	°C
7	3.373	V	TEMP2	25	°C
8	3.373	V	TEMP3	25	°C
9	3.383	V	TEMP4	25	°C
10	3.374	V	ENV_Temp	30	°C
11	3.373	V	MOS_Temp1	34	°C
12	3.372	V	MOS_Temp2	32	°C
13	3.372	V	Balance_Temp	28	°C
14	3.373	V	Current	9.75	A
15	3.372	V	SOH	100.00	%
V_SUM	50.60	V	Total_Chg_Cap	182	Ah
V_AVG	3.373	V	Total_Dsg_Cap	120	Ah
V_MAX	3.383	V	Total_Chg_Time	6.47	h
V_MIN	3.366	V	Total_Dsg_Time	2.33	h
V_DIFF	0.017	V	Total_CHG	9.919	KWH
			Total_DSG	6.107	KWH
			BUS_Volt	50.19	V
			BUS_Curr	8.89	A

MOS charge-discharge state

CHG_MOS ON Dis_MOS ON Charging

CHG_MOS OFF Dis_MOS OFF Discharge

Other:

Heat Stat: Fan State

Protection Status:

Anti-theft locked

Alarm Status:

Anti-theft Enable Anti-theft deployment success

Normal Status

AlarmCode: 00:00:20:01:00:00:03:02:00:00

SOC:100.00%

SN:ABCDEFGHIJKLMN

Company:

Product:

Time:

Producer:

Communication OK

Charging Status

Current_Limiter_Di

Max Volt: Min Volt: Cell Balance S/R_Status: 233/233

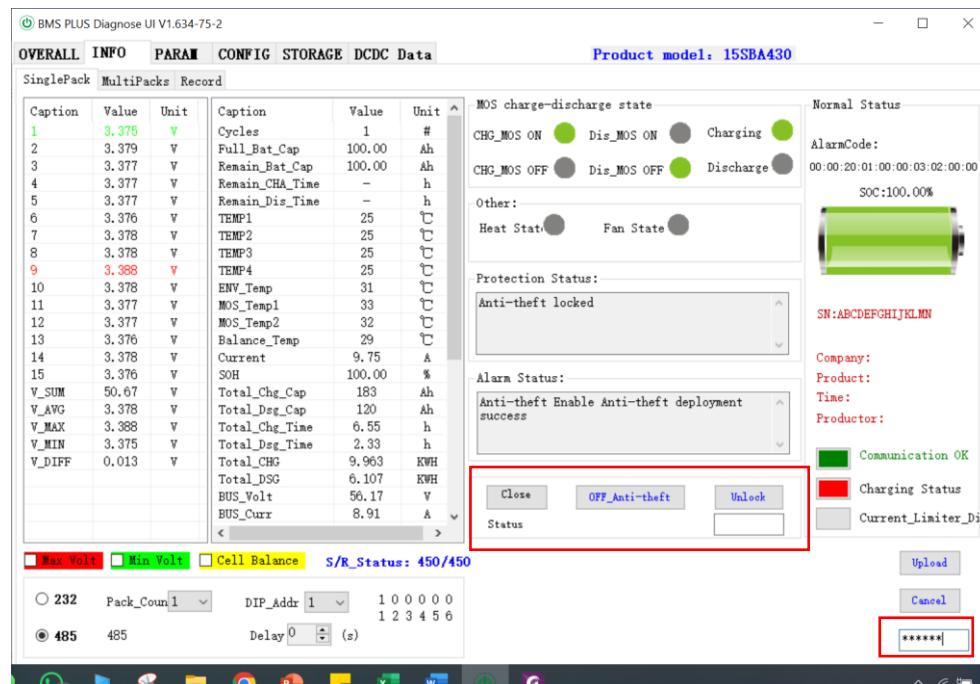
232 Pack_Count 1 DIP_Addr 1 1 0 0 0 0 0

485 485 Delay 0 (s)

Upload Cancel

Untuk unlock anti – teft pastikan posisi battery di posisi semula battery dipasang (horizontal atau vertical).

Masukkan password 999999 pada kolom kiri bawah software.



BMS PLUS Diagnose UI V1.634-75-2

OVERALL INFO PARAM CONFIG STORAGE DCDC Data Product model: 15SBA430

SinglePack MultiPacks Record

Caption	Value	Unit	Caption	Value	Unit
1	3.375	V	Cycles	1	#
2	3.379	V	Full_Bat_Cap	100.00	Ah
3	3.377	V	Remain_Bat_Cap	100.00	Ah
4	3.377	V	Remain_CHA_Time	-	h
5	3.377	V	Remain_Dis_Time	-	h
6	3.376	V	TEMP1	25	°C
7	3.378	V	TEMP2	25	°C
8	3.378	V	TEMP3	25	°C
9	3.388	V	TEMP4	25	°C
10	3.378	V	ENV_Temp	31	°C
11	3.377	V	MOS_Temp1	33	°C
12	3.377	V	MOS_Temp2	32	°C
13	3.376	V	Balance_Temp	29	°C
14	3.378	V	Current	9.75	A
15	3.376	V	SOH	100.00	%
V_SUM	50.67	V	Total_Chg_Cap	183	Ah
V_AVG	3.378	V	Total_Dsg_Cap	120	Ah
V_MAX	3.388	V	Total_Chg_Time	6.55	h
V_MIN	3.375	V	Total_Dsg_Time	2.33	h
V_DIFF	0.013	V	Total_CHG	9.963	KWH
			Total_DSG	6.107	KWH
			BUS_Volt	50.17	V
			BUS_Curr	8.91	A

MOS charge-discharge state

CHG_MOS ON Dis_MOS ON Charging

CHG_MOS OFF Dis_MOS OFF Discharge

Other:

Heat Stat: Fan State

Protection Status:

Anti-theft locked

Alarm Status:

Anti-theft Enable Anti-theft deployment success

Normal Status

AlarmCode: 00:00:20:01:00:00:03:02:00:00

SOC:100.00%

SN:ABCDEFGHIJKLMN

Company:

Product:

Time:

Producer:

Communication OK

Charging Status

Current_Limiter_Di

Max Volt: Min Volt: Cell Balance S/R_Status: 450/450

232 Pack_Count 1 DIP_Addr 1 1 0 0 0 0 0

485 485 Delay 0 (s)

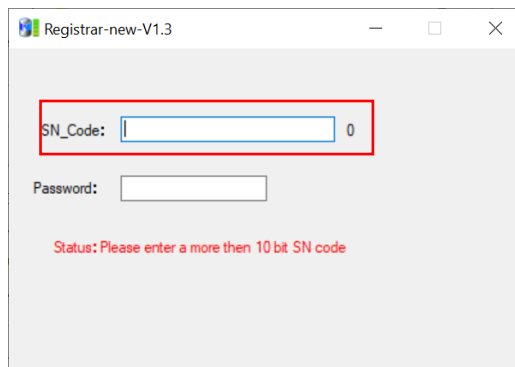
Upload Cancel

Close OFF_Anti-theft Unlock

Status

Akan muncul menu untuk unlock battery.

Battery dilengkapi dengan double authentication password. Jadi untuk unlock battery dibutuhkan password baru. Untuk generate password dibutuhkan software terpisah dan hanya **orang yang di berikan otorisasi** yang bisa mengenerate new password unlock anti – teft.



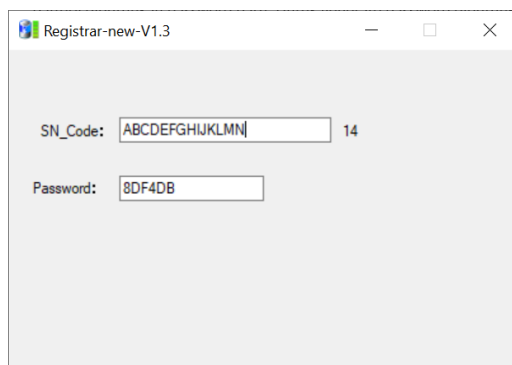
Registrar-new-V1.3

SN_Code: 0

Password:

Status: Please enter a more then 10 bit SN code

Masukan SN battery yang terkunci (locked).

Registrar-new-V1.3

SN_Code: 14

Password:

Passwords unlock anti – teft sudah diterima, masukkan password ke software utama battery. Kemudian klik unlock.



Protection Status:

Anti-theft locked

Alarm Status:

Anti-theft Enable Anti-theft deployment success

Close OFF_Anti-theft Unlock

Status

OVERALL
INFO
PARAM
CONFIG
STORAGE
DCDC Data

Product model: BA430

SinglePack
MultiPacks
Record

Caption	Value	Unit	Caption	Value	Unit
1	3.336	V	Cycles	0	#
2	3.337	V	Full_Bat_Cap	100.00	Ah
3	3.336	V	Remain_Bat_Cap	50.00	Ah
4	3.336	V	Remain_CHA_Time	-	h
5	3.339	V	Remain_Dis_Time	-	h
6	3.338	V	TEMP1	21	°C
7	3.337	V	TEMP2	21	°C
8	3.338	V	TEMP3	21	°C
9	3.337	V	TEMP4	21	°C
10	3.338	V	ENV_Temp	26	°C
11	3.339	V	MOS_Temp1	24	°C
12	3.338	V	MOS_Temp2	24	°C
13	3.339	V	Balance_Temp	24	°C
14	3.340	V	Current	0.00	A
15	3.340	V	SOH	100.00	%
V_SUM	50.07	V	Total_Chg_Cap	12	Ah
V_AVG	3.338	V	Total_Dsg_Cap	0	Ah
V_MAX	3.340	V	Total_Chg_Time	1.70	h
V_MIN	3.336	V	Total_Dsg_Time	0.87	h
V_DIFF	0.004	V	Total_CHG	0.688	KVh
			Total_DSG	0.000	KVh

MOS charge-discharge state

CHG_MOS ON
Dis_MOS ON
Charging

CHG_MOS OFF
Dis_MOS OFF
Discharge

Other:

Heat Stat
Fan State

Protection Status:

Anti-theft locked

Alarm Status:

Anti-theft Enable Anti-theft deployment success

Close
OFF_Anti-the
Unlock

Unlock OK

Normal Status

AlarmCode:
00:00:20:00:00:00:03:02:00:00

SOC:50.00%

SN:ABCDEFGHIJKLMN

Company:
Product:
Time:
Productor:

Communication OK

No Current

Current_Limiter_Di

Upload

Cancel

Max Volt
Min Volt
Cell Balance

S/R_Status: 500/482

232
Pack_Count
1
DIP_Addr
1
1 0 0 0 0
1 2 3 4 5 6

485
485
Delay
0
(s)

Akan muncul status unlock OKE jika password yang dimasukkan benar. Protection status akan hilang, akan tetapi Anti – theft masih dalam keadaan enable. Jika keangkat Antiteft – akan active.

Untuk disable anti theft klik OFF_Anti – theft.

OFF_Anti-theft

Prepared by, <u>Erik Pasaribu</u> Engineer	Checked by, <u>Syukri</u> M Enginner & Produksi	Approved by, <u>Nofianto</u> GM SBU & Engineering
Date :	Date :	Date :