SEDNA®

Remote Programming Controller

for Solar System

User Manual

Power supply battery	No.5(AA) x 2
Power supply voltage	3.0V
Effective distance	8m (infrared remote control), 30m (wireless remote control)
Sleep power consumption	<0.2uA
Normal power consumption	5mA
Transmitting instantaneous power consumption	<50mA
Backlight power consumption	<15mA
Product dimensions	120mm x 58mm x 24mm (L x W x H)
Package dimensions	140mm x 80mm x 40mm (L x W x H)
Weight	60grams (without battery)
Automatic power-off time	5mins
2000mAH battery setting quantity	30000
Ambient temperature	-25℃ ~ 55℃
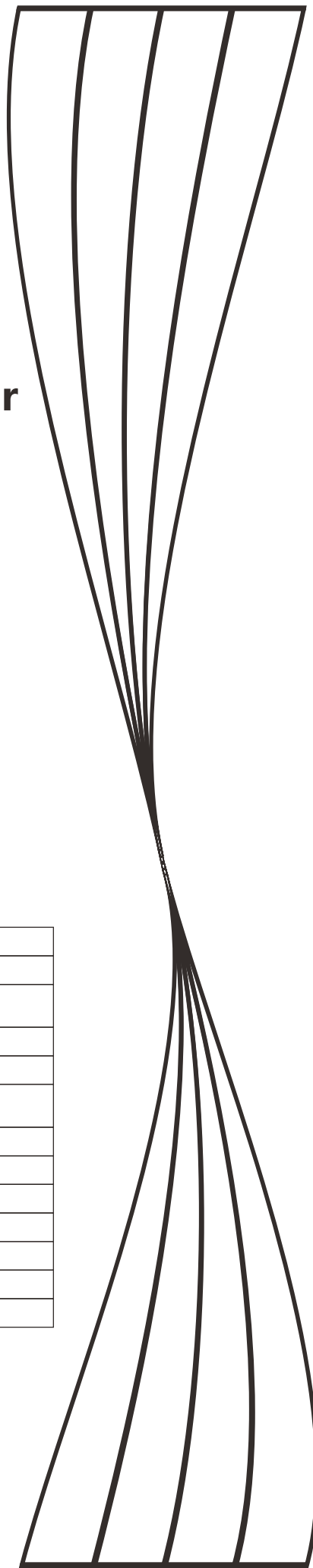
1. Panel Illustration

2. Keys Function Description

Key	Executive functions	Note
⏻	Remote Control Power On/Off	-
ON/OFF	Sleep and Wake Up	When the solar charge controller is working, press it to put the controller into sleep mode, press again to take it out of sleep state.
⬆	A: Move Up B: Increase Data	Long Press: Continuous increase of data
⬇	A: Move Down B: Decrease Data	Long Press: Continuous decrease of data
■	A: Enter B: Set Parameters	-
SEND	Send Working Parameters	This key only works in PARAMETER setting menu, otherwise press this key is invalid.
RETURN	A: Go Back B: Return to Main Menu	-
READ — INFO	Read Running State	-
READ — PARA	Read Working Parameters	-

Steps of use of the remote control:

① Power on

② Activate solar charge controller by PV panel (over 5V)

③ Confirm all settings are correct in SYSTEM SET menu

④ Determine if the remote is in [locked]state

⑤ Have a pleasant use

3. Remote Control Power On and Power Off

Press " ⏻ " anytime to power remote control ON or OFF.

## 4. Remote Control Send States Display

Send	OK
Send	Send Successfully

After setting the parameters, press " SEND " in the direction of the solar charge controller.

When sending successfully, remote control will give a long beep and display shows OK. LEDs on solar charge control will blink twice. If sending fails, remote control will give 3 short beeps.

⚠ **Note:** The remote control can only send parameters in the parameter setting menu, otherwise press this key is invalid.

## 5. Remote Control Parameters Lock and Unlock
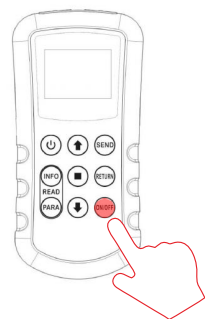
In order to avoid artificial change of control parameters, the remote control comes with the capability of locking parameters. After the parameters are locked, the remote control can only send parameters but cannot receive parameters, nor can it modify the parameters, but can receive the running status. This can avoid the problem of batch parameters setting error caused by inadvertent modification by the production personnel.

Parameters locking method:

Press " ON/OFF " for 5 seconds, the remote control gives a long beep and the control parameters are locked. To unlock it, follow same procedure.

6. Sleep and Wake up
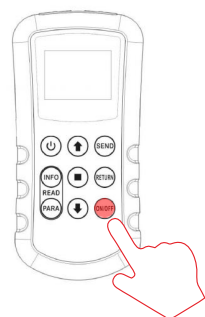
When the solar charge controller is working, press " ON/OFF " to put the controller into sleep mode. Press again to take it out of sleep state.

⚠ **Note:** Load will NOT turn on in day time.

7. Main Menu

There are 3 selections in main menu of the remote control, which are system setting, temperature protection, and parameter setting. Select the corresponding sub-menu and press " ■ " to enter the setting menu.

8. System Set

No.	Display	Set Items	Select Options	Default
01	LANGUAGE	System Language	ENGLISH/CHINESE	ENGLISH
02	MODEL	Solar Charge Controller Type	M3: MPPT 3V/6V battery system P3: PWM 3V/6V battery system M12: MPPT 12V/24V battery system P12: PWM 12V/4V battery system	M12
03	CON TYPE	Communication Type	INFR: Infrared communication 2.4G: 2.4G Wireless communication	INFR
04	DISTANCE	Communication Distance	LOW: 3-5M NEAR: 5-10M MID: 10-15M FAR: 15-30M	MID
05	WORK MODE	Solar Charge Controller Working Mode	MONO: Single program mode ABC: Three programs working mode	ABC
06	RC VER.	Remote Controller Version	G2.2	-

9. Temperature

No.	Display	Set Items	Default Parameter	Data Range	Adjustment Step length
01	CHARGE U	High Temperature Charging Limit	80℃	-40℃ - 99℃	1℃
02	CHARGE D	Low Temperature Charging Limit	-20℃	-40℃ - 99℃	1℃
03	DISCHA U	High Temperature Discharging Limit	80℃	-40℃ - 99℃	1℃
04	DISCHA D	Low Temperature Discharging Limit	-30℃	-40℃ - 99℃	1℃

10. Parameter

No.	Display	Set Items	Default Parameter	Data Range	Adjustment Step length	
01	OVER VOL	Overcharge Voltage	14.4V (M12/P12) 3.6V (M3/P3)	0-90V (M12/P12) 2.8-9.0V (M3/P3)	0.1V	Do Not Change
02	OVER RES	Overcharge Return	13.6V (M12/P12) 3.4V (M3/P3)	0-90V (M12/P12) 2.8-9.0V (M3/P3)	0.1V	Do Not Change
03	OVERFALL	Over-discharge Voltage	11.2V (M12/P12) 2.8V (M3/P3)	0-90V (M12/P12) 2.8-9.0V (M3/P3)	0.1V	Do Not Change
04	OVERF R	Over-discharge Return	12.4V (M12/P12) 3.1V (M3/P3)	0-90V (M12/P12) 2.8-9.0V (M3/P3)	0.1V	Do Not Change
05	SOLARVOL	Light Control Voltage	5.0V	0.5-20V	0.5V	
06	DELAYCTR	Light Control Delay	10S	1-180S	1S	
07	SAVE CTR	Intelligent Power Saving Management	Y:Yes	Y:Yes N:No	-	
08	SAVE STA	Saving Start Value	12.8V (M12/P12) 3.2V (M3/P3)	0-90V (M12/P12) 2.8-9.0V (M3/P3)	0.1V	Do Not Change
09	SAVE TER	Saving End Value	12.4V (M12/P12) 3.1V (M3/P3)	0-90V (M12/P12) 2.8-9.0V (M3/P3)	0.1V	Do Not Change
10	2 SEASON	Double Season	N:No	Y:Yes N:No	-	
11	WIN NIGH	Winter Night Lenth	12.0H	8.0-15.0H	0.5H	
12	WIN POW	Ratio of Winter Output Power	60%	30-100%	1%	
13	DELAY UN	Motion Sensing Delay	20S	1-180S	1S	
14	CURRENTS	Load Current	1A	0.1-9A	0.01A	

Remote control can set up to three programs working mode (A,B,C). Each mode can be set as Time Control (TIME SET) or Step Dimming with Motion Sensor Override (SENSOR).

10.1 TIME SET (Non-sensing Type)

Display	Set Items	Data Range	Default Parameter	Adjustment Step length
1ST TIME	First Period	0-15Hours	3Hours	0.5Hour
1ST POWER	First Period Power	0-100%	100%	1%
2ND TIME	Second Period	0-15Hours	3Hours	0.5Hour
2ND POWER	Second Period Power	0-100%	70%	1%
3RD TIME	Third Period	0-15Hours	6Hours	0.5Hour
3RD POWER	Third Period Power	0-100%	50%	1%
4TH TIME	Fourth Period	0-15Hours	0Hour	0.5Hour
4TH POWER	Fourth Period Power	0-100%	45%	1%
5TH TIME	Fifth Period	0-15Hours	0Hour	0.5Hour
5TH POWER	Fifth Period Power	0-100%	30%	1%
6TH TIME	Sixth Period	0-15Hours	0Hour	0.5Hour
6TH POWER	Sixth Period Power	0-100%	25%	1%
MORNING	Pre-dawn Period	0-3Hours	0Hour	0.5Hour
MOR. POW	Pre-dawn Period Power	0-100%	40%	1%

10.2 SENSOR (Step Dimming with Motior Sensor Override)

Display	Set Items	Data Range	Default Parameter	Adjustment Step length
1ST TIME	First Period	0-15Hours	1Hour	0.5Hour
1ST POWER	Power with human motion sensed	0-100%	100%	1%
1ST UNMAN	Power without human motion sensed	0-100%	30%	1%
2ND TIME	Second Period	0-15Hours	1Hour	0.5Hour

Display	Set Items	Data Range	Default Parameter	Adjustment Step length
2ND POWER	Power with human motion sensed	0-100%	80%	1%
2ND UNMAN	Power without human motion sensed	0-100%	24%	1%
3RD TIME	Third Period	0-15Hours	1Hour	0.5Hour
3RD POWER	Power with human motion sensed	0-100%	60%	1%
3RD UNMAN	Power without human motion sensed	0-100%	18%	1%
4TH TIME	Fourth Period	0-15Hours	1Hour	0.5Hour
4TH POWER	Power with human motion sensed	0-100%	45%	1%
4TH UNMAN	Power without human motion sensed	0-100%	14%	1%
5TH TIME	Fifth Period	0-15Hours	2Hours	0.5Hour
5TH POWER	Power with human motion sensed	0-100%	30%	1%
5TH UNMAN	Power without human motion sensed	0-100%	9%	1%
6TH TIME	Sixth Period	0-15Hours	7Hours	0.5Hour
6TH POWER	Power with human motion sensed	0-100%	25%	1%
6TH UNMAN	Power without human motion sensed	0-100%	8%	1%
MORNING	Pre-dawn Period	0-15Hours	1Hour	0.5Hour
MOR. POW	Power with human motion sensed	0-100%	40%	1%
M. UNMAN	Power without human motion sensed	0-100%	12%	1%

11. State and Parameter Reading

11.1 Running State Reading

Solar Charge Control State can be read using the remote control by pressing "INFO". When reading successfully, remote control will give a long beep and display shows OK. If reading fails, remote controller will give 3 short beeps.

Read	OK
Read	Read Successfully
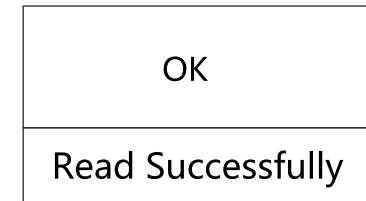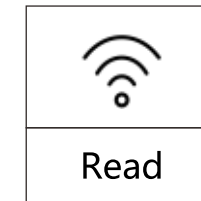
No.	Display	Information
1	MODEL	Solar Charge Controller Type
2	RUN DAYS	Days of Operation
3	BAT VOL	Battery Voltage
4	OVERFALL	Over-discharge Times
5	CHARGED	Full Charge Times
6	LED VOL	Load Voltage
7	LED CURR	Load Current
8	SOLARVOL	PV Voltage
9	CHARGE C	Charge Current
10	RUN MODE	Running Mode
11	RUN TYPE	Solar Charge Controller Working Mode
12	PRODUCT	Solar Charge Controller Version
13	TEMPATUR	-

11.2 Running Parameters Reading

Solar Charge Control Parameters can be read using the remote control by pressing "PARA". When reading successfully, remote control will give a long beep and display shows OK. If reading fails, remote controller will give 3 short beeps.

Read	OK
Read	Read Successfully