Dear Customer,
Thank you very much for purchasing this ORORA product. Please read the instructions carefully and thoroughly before using the product.

General Features

The ROM1 remote display is designed for displaying Panel Current, Load Current and Battery Voltage, Ah, SOC, etc as true values for ORORA RO series charge controllers.

- Clear, readable 3-digit LC display and symbols
- 2 push buttons to select displayed value
- Allow retrieving data of last 7 days from the RO datalogger
- Prepared for DIN rail and wall mounting
- 2 meters long connecting wire

Mounting and Connecting

This product is intended for indoor use only. Protect it from direct sunlight and place it in a dry environment. Never install it in humid rooms (such as bathrooms).

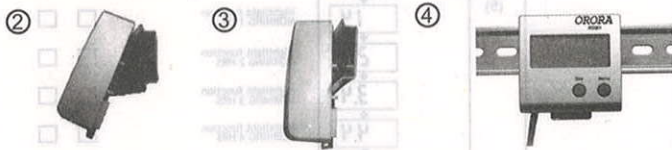> **REMARK:** Connect this product by following the steps described below to avoid installation faults.

1. Connect ROM1 remote display to RO controller

Please see Fig.1. That shows how to connect the ROM1 remote display to a RO controller.
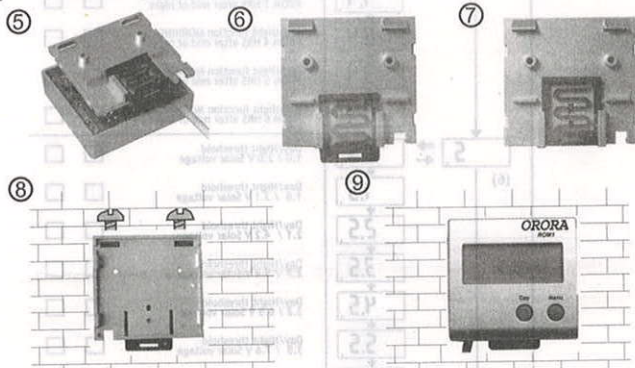
2. Mounting the ROM1 remote display

DIN Rail Mounting

Please see Fig.2 to Fig.4. That shows how to install the ROM1 remote display on a standard 35mm DIN rail.

[Wall Mounting]

Please see Fig.5 to Fig.9. That shows how to install the ROM1 remote display on the wall.

Power saving mode

If no operation are carried out to ROM1 for more than 1 minute, the ROM1 will switch to Power saving mode automatically with nothing displayed on LCD.
Please press left button once to wake up the ROM1 for normal operation.

Programming Your RO

With the ROM1 remote display, you can program your RO controller easily.
Your can enter programming menu by long push right button of ROM1 for about 5 seconds.
Short push the right button to toggle between main menus.
Long push the right button to enter programming menu, and then short push right button to select your setting.
Short push left button to save setting and exit.
Programming menu: Please see Fig.13.

Display Function

[Current Value]

Push the right button to toggle the parameters of your PV system today.
The parameters displayed in the LCD will toggle in this order :
SOC - Vbat (Battery Voltage) - Iin (Panel Current) - Iout (Load Current) - Ahin (Panel Amperehours) - Ahout (Load Amperehours) - Total Ahin (Total Panel Amperehours since PV system build up) - SOC - Vbat (Battery Voltage) - ...
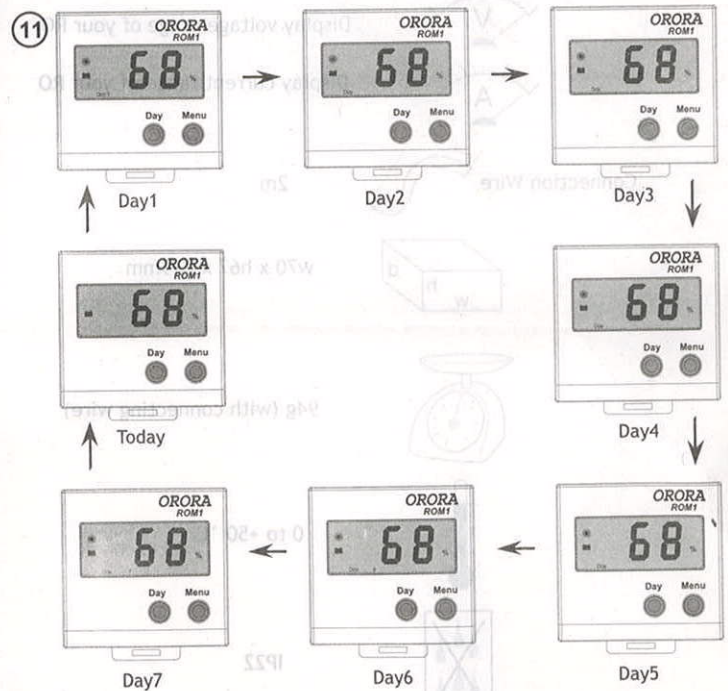Please see Fig.10 for reference.
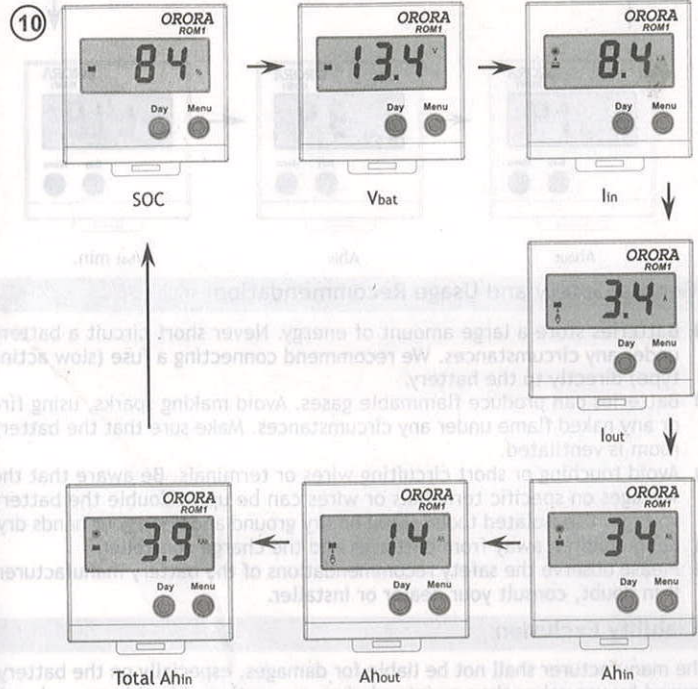
[History Data]

Step 1: First push the left button to toggle the day (Day 1 means yesterday).
The days displayed in the LCD will toggle in this order :
Day 1 - Day 2 - Day 3 - Day 4 - Day 5 - Day 6 - Day 7 - Today - Day 1 - Day 2 - ...
Please see Fig.11 for reference.

Step 2: Then push the right button to toggle the parameters of the day.
The parameters displayed in the LCD will toggle in this order :
SOC morning (State of Charge in the morning) - SOC evening (State of Charge in the evening) - Vbat max (Maximum Battery Voltage) - Vbat min (Minimum Battery Voltage) - Ahin (Panel Amperehours) - Ahout (Load Amperehours) - SOC morning (State of Charge in the morning) - SOC evening (State of Charge in the evening) - ...
Please see Fig.12 for reference.

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SOC-morning → SOC-evening → Vbat max.

Ahout ← Ahin ← Vbat min.
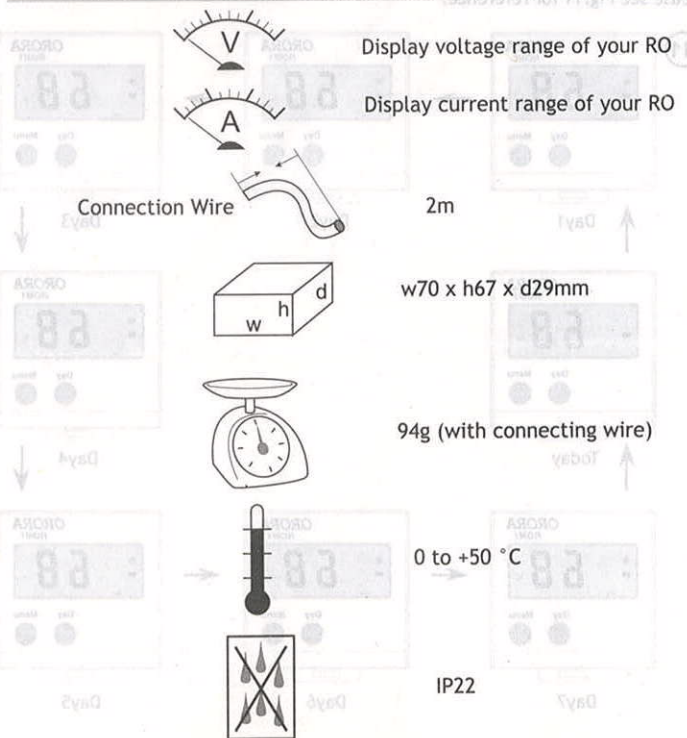
Please see Fig. 10 for reference.
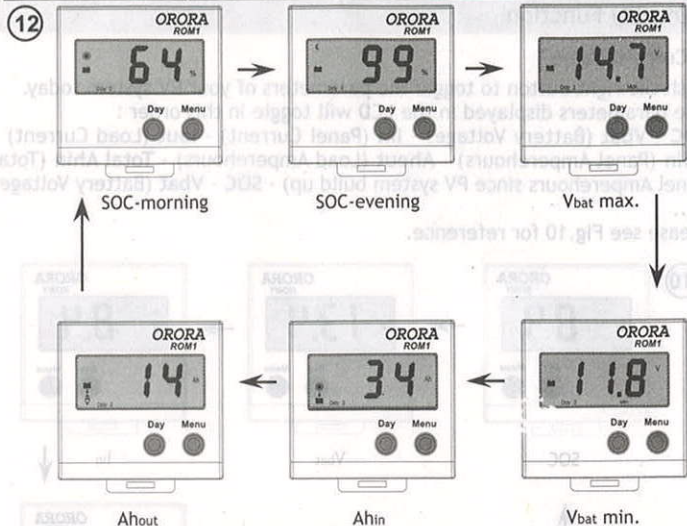
General Safety and Usage Recommendation

- Batteries store a large amount of energy. Never short circuit a battery under any circumstances. We recommend connecting a fuse (slow acting type) directly to the battery.
- Batteries can produce flammable gases. Avoid making sparks, using fire or any naked flame under any circumstances. Make sure that the battery room is ventilated.
- Avoid touching or short circuiting wires or terminals. Be aware that the voltages on specific terminals or wires can be up to double the battery voltage. Use isolated tools, stand on dry ground and keep your hands dry.
- Keep children away from batteries and the charge controller.
- Please observe the safety recommendations of the battery manufacturer. If in doubt, consult your dealer or installer.

Liability Exclusion

The manufacturer shall not be liable for damages, especially on the battery, caused by use other than as intended or as mentioned in this manual or if the recommendations of the battery manufacturer are neglected. The manufacturer shall not be liable if there has been service or repair carried out by any unauthorized person.

Technical Data

V — Display voltage range of your RO

A — Display current range of your RO

Connection Wire — 2m

w70 x h67 x d29mm

94g (with connecting wire)

0 to +50 °C

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Normal Operation	Main Menu	Programming Menu (flashing)		Setting Factory	Your
13.4	0	0.0	Battery type liquid electrolyte	☒	☐
(1)		1.0	Battery type GEL (VRLA)	☐	☐
	1	0.1	Low voltage disconnect current compensated 11.4 - 11.9 V	☒	☐
(2)		1.1	Low voltage disconnect current compensated 11.0 - 11.75 V	☐	☐
		2.1	LVD current compensated / adaptive 11.0 - 12.2 V	☐	☐
		3.1	Low voltage disconnect 11.5 V	☐	☐
		4.1	Low voltage disconnect 11.0 V	☐	☐
	2	0.2	Nightlight function OFF	☒	☐
(3)		1.2	Nightlight function DUSK TO DAWN	☐	☐
		2.2	Nightlight function EVENING/MORNING	☐	☐
	3	0.3	Nightlight function EVENING OFF	☒	☐
(4)		1.3	Nightlight function EVENING 1 HR	☐	☐
		2.3	Nightlight function EVENING 2 HRS	☐	☐
		3.3	Nightlight function EVENING 3 HRS	☐	☐
		4.3	Nightlight function EVENING 4 HRS	☐	☐
		5.3	Nightlight function EVENING 5 HRS	☐	☐
		6.3	Nightlight function EVENING TO 4 HRS before mid of night	☐	☐
		7.3	Nightlight function EVENING TO 3 HRS before mid of night	☐	☐
		8.3	Nightlight function EVENING TO 2 HRS before mid of night	☐	☐
		9.3	Nightlight function EVENING TO 1 HR before mid of night	☐	☐
		10.3	Nightlight function EVENING TO mid of night	☐	☐
	4	0.4	Nightlight function MORNING OFF	☒	☐
(5)		1.4	Nightlight function MORNING 1 HR	☐	☐
		2.4	Nightlight function MORNING 2 HRS	☐	☐
		3.4	Nightlight function MORNING 3 HRS	☐	☐
		4.4	Nightlight function MORNING 4 HRS	☐	☐
		5.4	Nightlight function MORNING 5 HRS	☐	☐
		6.4	Nightlight function MORNING FROM 2 HRS after mid of night	☐	☐
		7.4	Nightlight function MORNING FROM 3 HRS after mid of night	☐	☐
		8.4	Nightlight function MORNING FROM 4 HRS after mid of night	☐	☐
		9.4	Nightlight function MORNING FROM 5 HRS after mid of night	☐	☐
		10.4	Nightlight function MORNING FROM 6 HRS after mid of night	☐	☐
	5	0.5	Day/Night threshold 1.0 / 2.0 V Solar voltage	☐	☐
(6)		1.5	Day/Night threshold 1.6 / 3.1 V Solar voltage	☐	☐
		2.5	Day/Night threshold 2.1 / 4.2 V Solar voltage	☐	☐
		3.5	Day/Night threshold 2.7 / 5.4 V Solar voltage	☐	☐
		4.5	Day/Night threshold 3.2 / 6.5 V Solar voltage	☐	☐
		5.5	Day/Night threshold 3.8 / 7.6 V Solar voltage	☐	☐
		6.5	Day/Night threshold 4.4 / 8.8 V Solar voltage	☐	☐
		7.5	Day/Night threshold 4.9 / 9.8 V Solarspannung	☒	☐
		8.5	Day/Night threshold 5.5 / 11.0 V Solar voltage	☐	☐
		9.5	Day/Night threshold 6.0 / 12.1 V Solar voltage	☐	☐
		10.5	Day/Night threshold 6.6 / 13.2 V Solar voltage	☐	☐
		11.5	Day/Night threshold 7.2 / 14.3 V Solar voltage	☐	☐
		12.5	Day/Night threshold 7.7 / 15.4 V Solar voltage	☐	☐
	6	0.6	Buzzer OFF	☐	☐
(7)		1.6	Buzzer ON	☐	☐

Short push Left Button < 1 Second

Short push Right Button < 1 Second

Long push Right Button > 1 Second

Long push Right Button > 5 Second