INSTRUCTION MANUAL

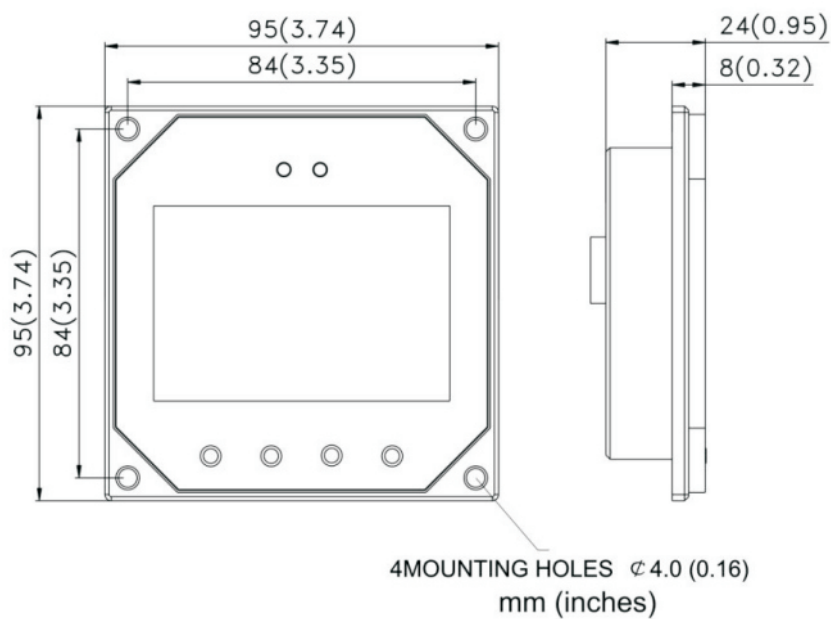------------METER *for duo−battery charging solar controller,*

For RVs, Caravans, and boats
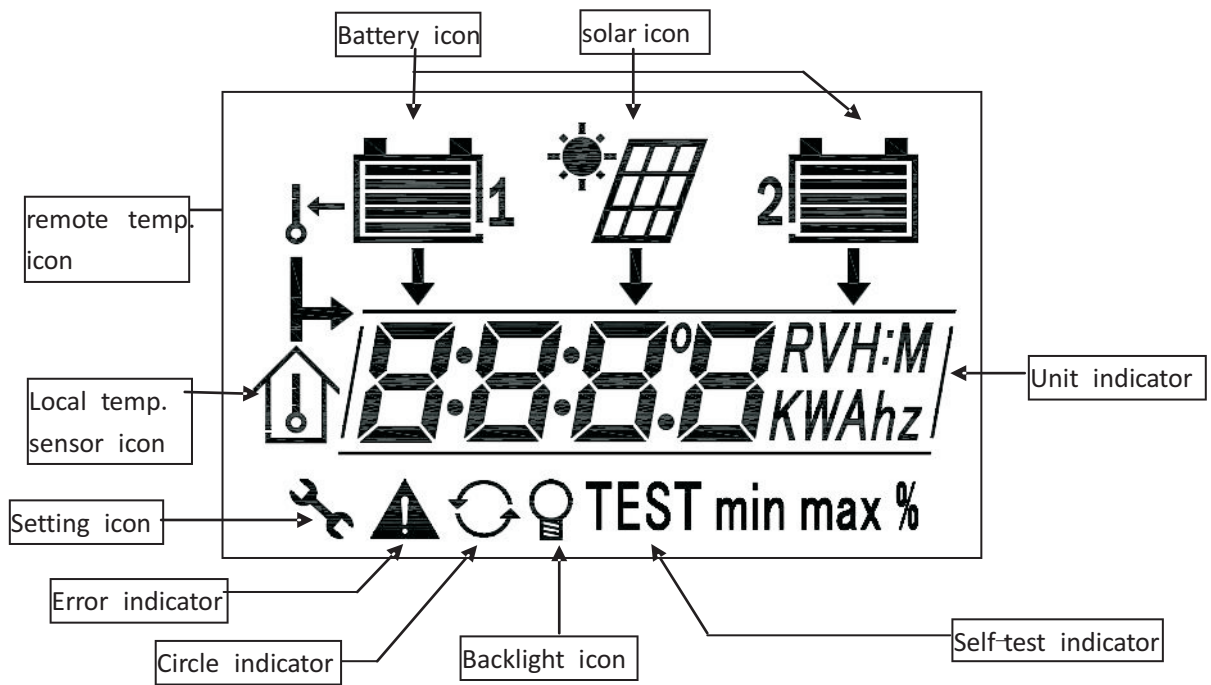

CONTAINS：

Wall mounting facsia, can be mounted in or on the wall. With 10 meter cable

MOUNTING DIMENSION：

4MOUNTING HOLES ∅4.0 (0.16)
mm (inches)

REMOTE METER DISPLAY:

Battery icon

solar icon

remote temp. icon

Local temp. sensor icon

Setting icon

Error indicator

Circle indicator

Backlight icon

Self-test indicator

Unit indicator

LEDs on the top of the LCD

1. Charging led: green on, charging
2. Error led: red on, error

REMOTE METER OPERATION INSTRUCTION:

the keys (from left to right) are: K1-K4, or Next ⏬ , Left ⇐ , Right ⇒ , Set ○ .
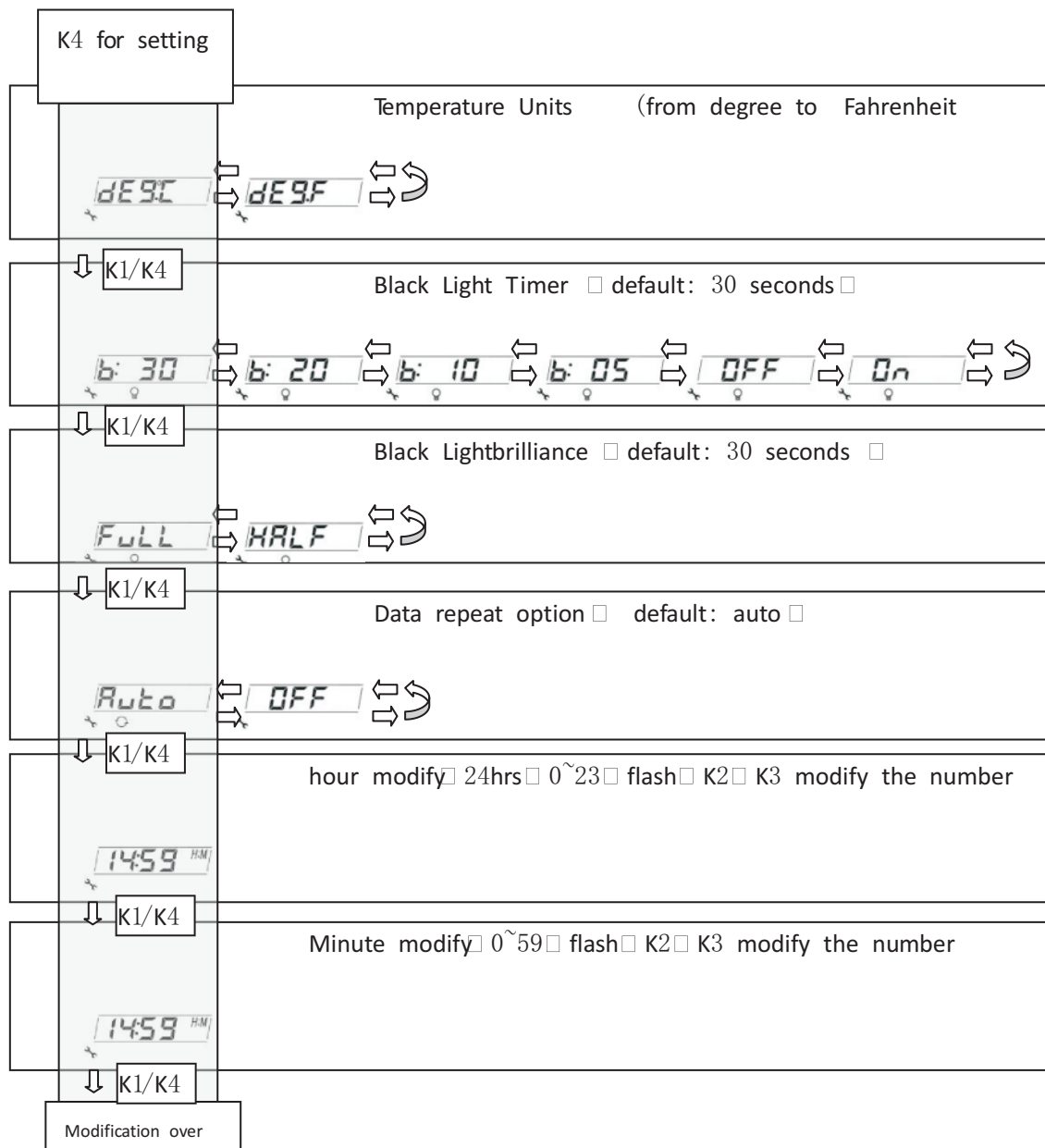
The meter display as following order:

Solar panel, battery 1, battery 2, other in four sets. Use K2 or K3 to check the data between the sets. Symbol ⟳ steps through the set 1 to set 4. K1 steps through the data in each set.

PV solar Information

13.2 ᵛ 14.5 ₐ 14.5 ₐ max 860 K Ah 50 hz 30.70 ᴿ

Next

Battery 1 Information

13.8 ᵛ 10.8 ᵛ min 14.4 ᵛ max 186 K Ah

Next

Battery 2 Information

13.8 ᵛ 10.8 ᵛ min 14.4 ᵛ max 186 K Ah

Next

Temperature & Time Information

36℃ 30℃ 14.59 ᴴᴹ
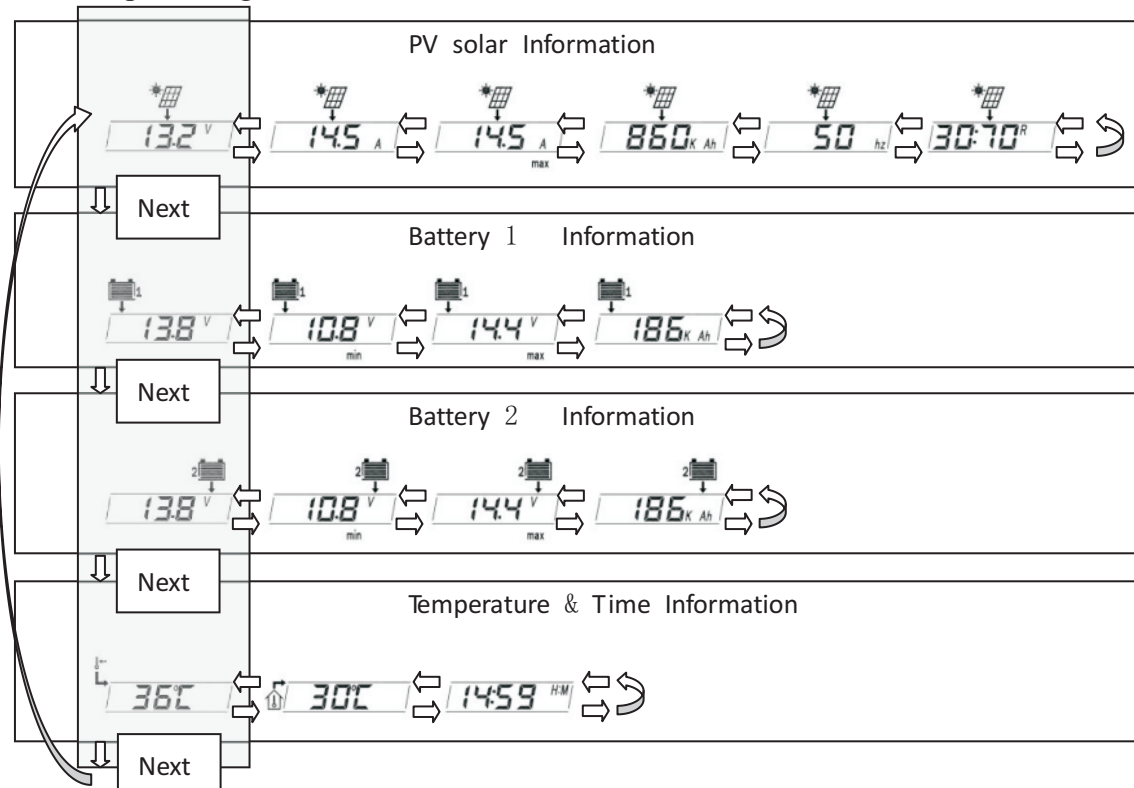
Next

Data setting instructions：Press K4 for setting ，stepping through settings and to save the modified data.

K1 for next data, K2 and K3 for modifying the data.

| K4 for setting |

Temperature Units （from degree to Fahrenheit

dEg.C ⇄ *dEg.F* ⇄

⇩ K1/K4

Black Light Timer □ default：30 seconds□

b: 30 ⇄ *b: 20* ⇄ *b: 10* ⇄ *b: 05* ⇄ *OFF* ⇄ *On* ⇄

⇩ K1/K4

Black Lightbrilliance □ default：30 seconds □

FuLL ⇄ *HALF* ⇄

⇩ K1/K4

Data repeat option □ default：auto □

Auto ⇄ *OFF* ⇄

⇩ K1/K4

hour modify□ 24hrs□ 0~23□ flash□ K2□ K3 modify the number

14:59 H:M

⇩ K1/K4

Minute modify□ 0~59□ flash□ K2□ K3 modify the number

14:59 H:M

⇩ K1/K4

| Modification over |

1. **Temperature option**：

    dEg.℃　Celsiur scale（℃ ）

    dEg.℉　　Fahrenheit（℉）

2. **Backlight instruction**：press any key the backlight will illuminate．To set the time the backlight is on press K4 and then K1． Backlight options：

OFF：backlight is off all the time　　**On**：backlight is on all the time in any case．

B：30backlight on for 30 seconds　　**B**：20backlight on for 20 seconds

B：10backlight on for 10 seconds　　**B**：05backlight on for 5 seconds

***Note*：*backlight timer calculated as the last key press*．*And backlight has* 2 *settings*：
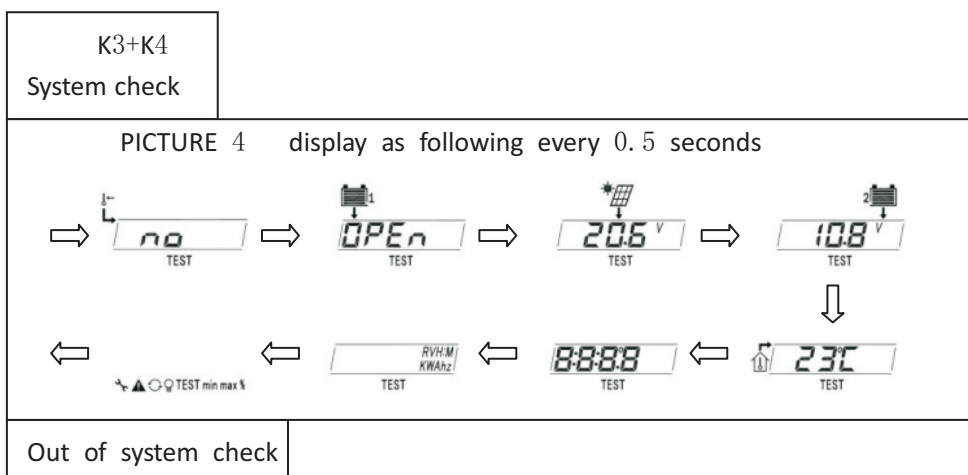
FULL：high bright

HALF：low bright

3. **Data repeat**：**auto or manual**，**options as follows**：

Auto　each set of data will repeat every 3 seconds，K1 for next set. K2，K3 for data repeating in the set.

OFF　data will not repeat automatically，unless press K2 or K3，or K1 for the next set of data.

4. **Clock adjust**：hour，minute flash，press K2，K3 to modify the data，press K4 to save it.

System checking：**A**t any time，press K1+K2，it will check and display the related data automatically. Details as PICTURE 4. If NO is displayed，this means there is no connection. If the connection is ok，the related data will be displayed. If no remote temperature sensor is connected，the meter will show thermometer and NO. if connection is ok，it will show the data it detects.**OPEn** means no battery connection or over voltage，the data will be displayed while the connection ok.


```
K3+K4
System check
```

PICTURE 4　display as following every 0.5 seconds

⇒ no TEST ⇒ OPEn TEST ⇒ 20.6 V TEST ⇒ 10.8 V TEST

⬇

⇐ ▲○○TEST min max % ⇐ RVH:M KWAhz TEST ⇐ 8:8:8:8 TEST ⇐ 23℃ TEST

```
Out of system check
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Data erase to :0 at any time，press K3+K4 □ the data will be erased to 0，such as max，min，Ah. AH accumulate from 0.

OTHER INSTRUCTION：

Specifications：

Rated voltage：	12V，min voltage（suggest）：8.0V.
Strong backlight on：	＜23mA，
Low backlight on：	＜20mA
Backlight and LED indicator off：	＜17mA
Operation temperature：	−40～+60
LCD operation temperature：	−10℃ +40℃
Humidity：	0−100%
Communication cable：	RJ45（8PIN），10　meter.

When is displayed check the following:
1. One battery is disconnected, open circuit or over voltage.
2. The remote sensor is not connected.
3. Over Charge current.
4. Solar PV short circuit.

The will disappear automatically when the fault is rectified

Telecommunication port: white the meter run by power or while the meter run by individual power or the communication cut off, it displays 4 pieces of Press key, no answer. The display will resume while communications is on.

Note: the data displayed got from the communication, check if the cable correct while the data is error, or if there is strong interference. Too long cable may bring mistakes too. The data will update every 20 seconds.

Battery capacity strip flash each strip equals to 20% of battery capacity. The over part will be showed as flashing. For example, the first trip flash, the battery capacity is 1-19%, the second trip flash, it is 21-39%, etc.

Note: the calculation takes fully charged voltage as 100%, and over discharged as 0%. All is based on battery voltage, not the real battery capacity.

Battery capacity AH : AH is the accumulation of charging, each one minute will count. The data is not accurate while the charge current is too small. The min. is 1AH, means 1amps charging for 1 hour, AH comes to show.