



## TechnoLine COSTMANAGER Electronic Device Dual Tariff Cost Display Instruction Manual

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## Overview

## A – Display

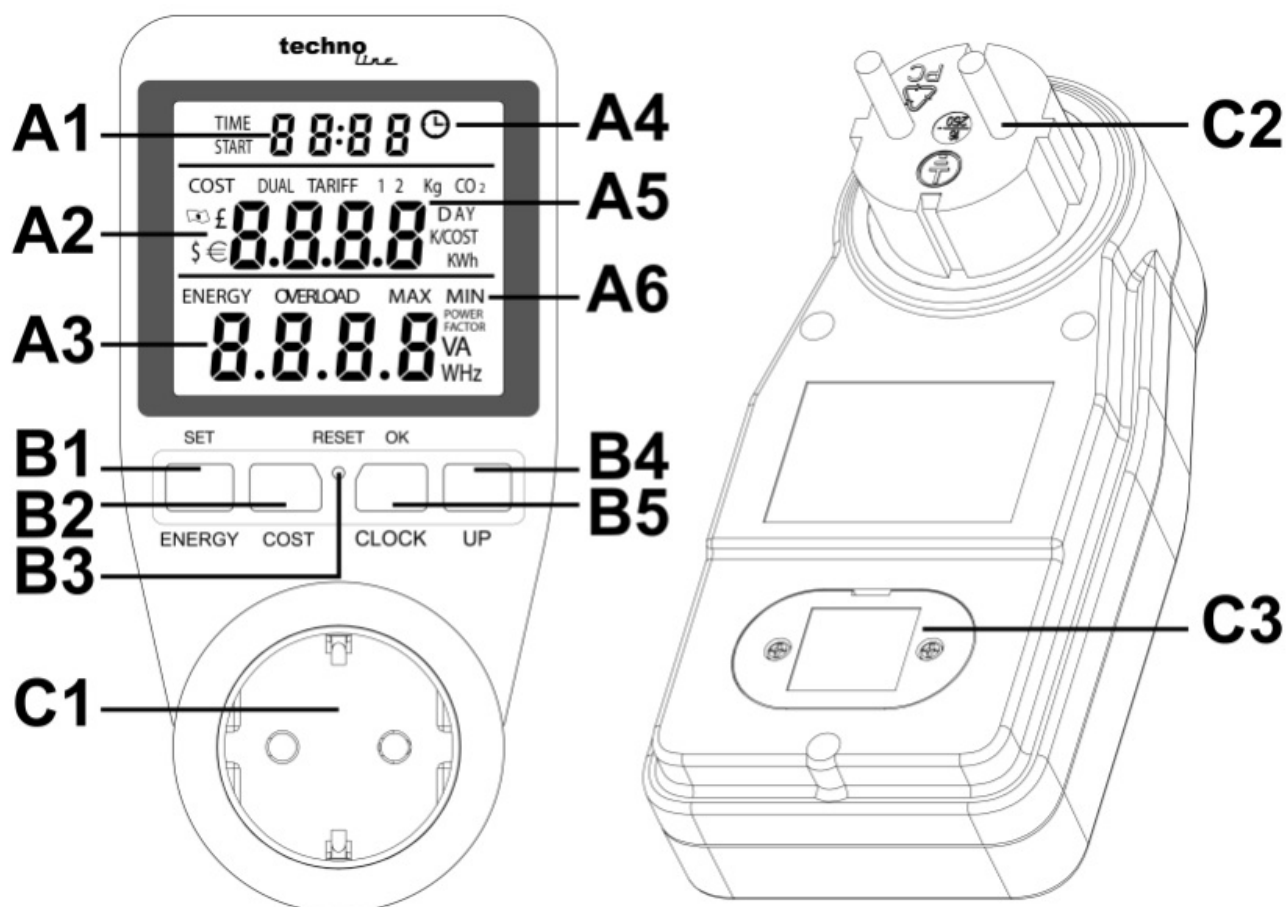
- A1 – Time/ Count-up
- A2 – Currency icons
- A3 – Energy/ Overload display
- A4 – Clock icon
- A5 – Cost /Tariff (1/2)/CO2 /Day display
- A6 – MAX/MIN icons

## B – Buttons

- B1 – SET / ENERGY button
- B2 – COST button
- B3 – RESET button
- B4 – UP button
- B5 – OK / CLOCK button

## C – Case

- C1 – Socket for managed device
- C2 – Plug for power socket
- C3 – Battery compartment



## Functions

Cost Manager is an electronic device dual tariff cost display, which can measure energy and cost of household appliances, and help users reduce the power bill and carbon emissions.

## Operation steps

Pull out the safety strip from the battery compartment to have the button cell batteries connect within the COST MANAGER and give it back-up power to save the settings.

Secondly connect the electric appliances with COST MANAGER and connect it to the household power supply. COST MANAGER is now ready and starts in display mode with clock display.

## Replacing the batteries

If batteries run low on power and need replacing, disconnect the COST MANAGER from electric appliances and the household power supply. Unscrew the screws that hold down the battery compartment cover and remove the cover. Replace 2 x LR44 button cell batteries with fresh batteries, close the battery compartment cover again and tighten the screws. Connect the COST MANAGER from electric appliances and the household power supply again.


## Display mode

After powering up, the LCD screen of the COST MANAGER will show all it's contents for 3 seconds and then start to display the time, cost and energy.


### Note:

After 10 seconds without operation the LCD will turn off to save energy, but the operations will still be active in the background.

## Clock display


The upper row displays  (Clock) icon and 0:00. Within the first 60 minutes (0:00 to 0:59), the first number shows the minutes and the following number shows the seconds. After the first 60 minutes (1:00 to 23:59) the time is displaying hours as first number and minute as second number.


## Clock setting

Press and hold the "CLOCK" button for 3 seconds and the  (Clock) icon will flash, while the COST MANAGER enters time setting mode. The numbers on the left are flashing (hour) and the hour can be set by pressing the "UP" button. Press the "SET" button and the numbers on the right (minutes) are flashing, the minutes can be set by pressing the "UP" button. Press the "SET" button to return to the hour setting or press the "CLOCK" button to end the setting mode and return to clock display.

## Change between view of clock time and counted time

Press the "CLOCK" button once to change between the views of clock time and counted time. For example, if you press "CLOCK" button when LCD displays clock time, it will change to counted time. The first row displays hour and minute part, the second row displays day part (range:0.000-9999 days).

The  icon will disappear while the LCD displays counted time.

The  icon will appear again when changing back to clock display.

## Counted time display

When COST MANAGER detected power overload of 2w, it starts counted time and the LCD displays 0:00. Within the first 60 minutes (0:00 to 0:59), the first number shows the minutes and the following number shows the seconds. After the first 60 minutes (1:00 to 23:59) the time is displaying hours as first number and minute as second number. When the time is above 24 hours, the counted time will reset to 0:00.

## Cost display

The second row shows the electric charge and similar values, press the "COST" button to go through the different viewing options:

Counted electric charge (range: 0.000 9999COST ) →

Counted electric power (range: 0.000 9999KWH ) →

Volume Kg of CO<sub>2</sub> (range: 0.000 9999kg CO<sub>2</sub>, 1kwh change into 0.998kg CO<sub>2</sub> ) →

Rate of electric charge (range: 0.000 9999 COST/KWh, the default value of system is 1.00 COST/KWh)

### Note:

When electric charge and price are displayed on LCD, the corresponding currency symbol is always visible. The

initial currency in factory setting is set to



## Cost setting

Press and hold the "COST" button for 3 seconds to enter the cost setting mode, then set as follows:

- This COST MANAGER has four kinds of currency symbol, such as



( money symbol); (Pound); (US Dollar);€ (Euro). Press the "UP" button to choose the symbol that you want, then press the "OK" button select and continue.

- When finished the currency setting, press the "UP" button to choose the tariff. Simple tariff is "TARIFF 1", dual tariff is "DUAL TARIFF". Press the "UP" button to switch between option and press the "OK" button to select and continue.
- If you choose "DUAL TARIFF", press the "SET" button to choose the blinking value (the second row of LCD), then press the "UP" button to set the rate (range:0.000 9999COST/KWH). Press the "OK" button to select and continue.
- Then "time start" displayed on LCD, please press the "SET" button to choose the twinkling number( first row on LCD), then press the "UP" button to set (range of first two numbers:0-23; range of last two numbers:0-59). Press the "OK" button to select and continue. Press "COST" button to save and exit the setting mode and return to initial LCD displayed mode.

### Notes:

- If choose simple tariff "TARIFF 1",you just need to set the rate of "TARIFF 1", then press the "COST" button to save and exit the setting mode and return to initial LCD displayed mode.
- While setting the price parameter, the corresponding currency symbol will be displayed.
- If the system is in "DUAL TARIFF" mode, finished tariff 2 means the start of tariff 1; finished tariff 1 means the start of tariff 2.

## Electricity parameter display and setting

- The third row shows power, voltage and similar values, press the "ENERGY" button to go through the different viewing options:  
Present power (range:0.000 9999 W ) →  
Present voltage (range:0.000 9999 V ) →  
Present frequency (range: 0.000 9999 Hz ) →  
Present current (range:0.000 9999 A ) →  
Present power factor (0.000 1.000 Power factor ) →  
MAX overload watts (range:0.000-9999 W ) →  
MIN overload watts (range: 0.0W-9999 W ) →  
Overload alarm setting watts (range: 0.000-9999 W ).
- Press "ENERGY" button more than three seconds, it will enter into "OVERLOAD" watts setting, the "OVERLOAD" on the screen will blink, press the "SET" button to select the point and then press the "UP" button set the selected point. Press "ENERGY" button to save and exit the setting mode and return to initial LCD displayed mode.

### Notes:

- OVERLOAD is automatically quit after no further usage of buttons.
- When current load power exceed the overload parameter which was set before, the "OVERLOAD" will keep twinkling, it means this is a safety danger, which is the initial set parameter of 3680W.

## General information

- Symbol of "COST" which is on the upper left corner of second row, and "ENERGY" which is on the upper left corner of third row always display on LCD.
- Outside of settings, the "UP" button has no operation.
- When in setting mode, press and hold the "UP" button to quickly set the setting value.

## Troubleshooting

- Check whether the connected power supply is in use.
- Check if the batteries in the COST MANAGER are correctly inserted.
- When the display is abnormal or shows no reaction, press the "RESET" button of COST MANAGER for recovery.

## Declaration of conformity

Hereby, Technotrade declares that this product COST MANAGER is in compliance with the essential requirements and other relevant provisions of Directive 2014/30/EU and ROHS 2011/65/EC. The original EU declaration of conformity may be found at: [www.technoline.de/doc/4029665000886](http://www.technoline.de/doc/4029665000886)

## Specifications

**Normal operation voltage:** 230V/50Hz  
**Load current:** MAX: 16A  
**Voltage working range:** 175V 276V  
**Timing display range:** 0 second 9999 days  
**Power display range:** 0.000 9999W  
**Voltage display range:** 0.000 9999V  
**Current display range:** 0.000 9999A  
**Frequency display range:** 0.000 9999Hz  
**Rate of electricity range:** 0.000 99.99 Cost/kwh  
**Total cost consume range :** 0.000 9999K (of selected currency)  
**Total CO2 volume range :** 0.000 9999 kg  
**Total energy consume range:** 0.000 9999 kwh

#### **Working Condition:**

**Working Voltage** 175V 276V  
**Voltage Frequency** 45~65HZ  
**Working Current** ≤16A  
**Working Temperature:** -10~50°C  
**Working Humidity** 15%~80%  
**Working Altitude** ≤2000 km

#### **Precautions**

- This unit is intended to be used only indoors.
- Do not subject the unit to excessive force or shock.
- Do not expose the unit to extreme temperatures, direct sunlight, dust or humidity.
- Do not immerse in water.
- Avoid contact with any corrosive materials.
- Do not dispose this unit in a fire as it may explode.
- Do not open the inner back case or tamper with any components of this unit.

#### **Batteries safety warnings**

- Use only alkaline batteries, not rechargeable batteries.
- Install batteries correctly by matching the polarities (+/-).
- Always replace a complete set of batteries.
- Never mix used and new batteries.
- Remove exhausted batteries immediately.
- Remove batteries when not in use.
- Do not recharge and do not dispose of batteries in fire as the batteries may explode.
- Ensure batteries are stored away from metal objects as contact may cause a short circuit.
- Avoid exposing batteries to extreme temperature or humidity or direct sunlight.
- Keep all batteries out of reach from children. They are a choking hazard.

Use the product only for its intended purpose!

#### **Consideration of duty according to the battery law**



Old batteries do not belong to domestic waste because they could cause damages of health and environment. You can return used batteries free of charge to your dealer and collection points. As end-user you are committed by law to bring back needed batteries to distributors and other collecting points!

**Consideration of duty according to the law of electrical devices**



■ This symbol means that you must dispose of electrical devices separated from the General household waste when it reaches the end of its useful life. Take your unit to your local waste collection point or recycling centre. This applies to all countries of the European Union, and to other European countries with a separate waste collection system.

**Documents / Resources**

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