Klever LCD Display

Content

Support Level Indicator

Menu

Plus

Minus

Turbo

Battery Charge Indicator

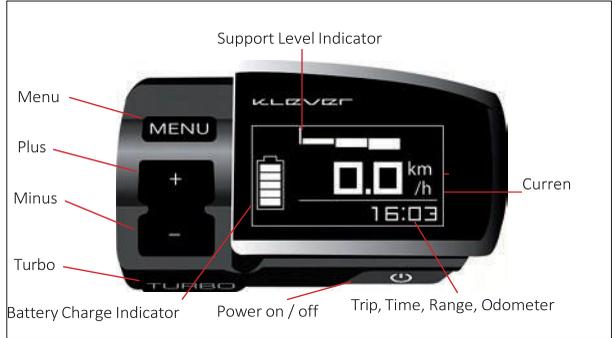Power on / off

Trip, Time, Range, Odometer

Curren

image 1

1.1 Display/User interface

The **Display** (with user interface) is your gate to the electric propulsion system (image1)

With the display you start and control the electric system.

You can start the system only with the attached display.

When the key pairing function is enabled, the bicycle has its own individually programmed display. When enabling the key matching function in setting menu, only this one display will work with the bike. It is not possible to activate your Pedelec with the display of another bike

Every press of a button will be confirmed with a short acoustic signal.

As soon as the display is set into its base, the system starts. With the display already in its seat while the system is off, you have two ways to start it :

1. Push the power button
the system will make a check for the fi st 3 seconds- now the system is ready

or

2. You start pedaling the bike and trigger the automatic start sequence. A system check is started for the first three seconds, after which the system supports you.

If the system is switched off by pressing the power button (image3), the automatic start mechanism is delayed for 30 sec powered off. This is for the user who wants to ride the bike mode without any assistance.

By pressing the + or- buttons you can select the desired support level in standstill or while riding.

3

Button:	Location	Function
Power	Lower right edge	On / Off
Minus (-)	Lower left	Switch down support level
Plus (+)	Middle left	Swith up support level
Menu	Top left	Switch between clock, trip, total distance and remaining range
Turbo	Lower left edge	Starting and pushing aid (at rest); strongest support (while pedaling)

1.1.1 Function of each button:

Start/ stop button (image 2)

By pressing button 1 for 1 sec boot the system. The system performs a system check of about 1-2 seconds, and the drive system is ready to operate. The electric drive supports you depending on the level of assistance during pedaling.

By pressing this button again the system turned off and all settings are stored. Now the Pedelec works like a normal bicycle. Press the button again, the system starts at exactly the point at which you have turned it off and all old settings and levels of support are enabled again.
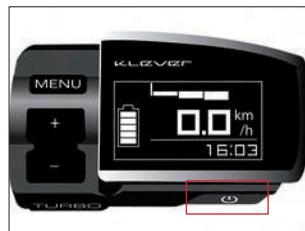

image 2

 Attention! After 8 minutes of inactivity, the system turns off automatically

image 3

Minus (-) Button (image 3)

By pressing the button 3, you can reduce each support level always exactly one level. E.g. the selected support level is M (medium), and you press 3 (-), the assistance of the electric-motor decrease by one level to L (Low).

image 4

Plus (+) Button (image 4)

Pressing the button 4 you can always increase each support level by exactly one level. E.g. the selected support level is on M (medium) and you push the plus button, the support level of the motor will increase exactly one level, in this case H (High).

image 5

MENU Button (image 5)

By pressing the menu button, all important information will be accessed and displayed on the screen.

Press the Menu button shortly to switch among available items. Some examples of them are listed below:

Note: The available items might depend on bike model and version.

Time (hh:mm) : The time can be adjusted by one of below methods:

> Setting menu
> Synchronize with smartphone
> Service tool at a dealer

Remaining range: The remaining range for the currently selected support level. Change the level by pressing the + or- button, the system calculates the new range and displays it on the screen.(image 6; example 38 km)

image 6

Trip: Kilometers ridden since the last reset. (image 7; example 130,6 km).

If you want to set the odometer to zero, e.g. at the beginning of a day trip, press the Menu button to enter the settings. Select reset, then Trip and confirm by pressing the + button.

image 7

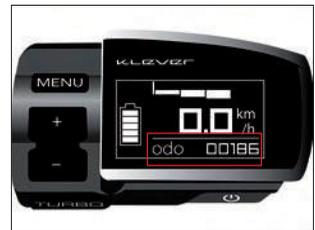**odo:** Accumulated riding kilometers (image8; example 186km).
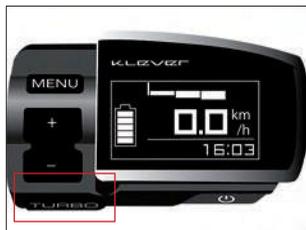

image 8

image 9

TURBO Button (image 9)

This button has two functions:

1. As a starting and pushing aid: To help you pushing and/or starting a bicycle at a traffic light on a ramp or facilitate uphill you can press this button. As long as you hold the button, you receive assistance from the motor without pedaling (up to max. 4 km/h) When you release the button, the support from the motor stops immediately.

This support only works up to 4 km/h max. and when you are not pedaling.

> ⚠ **Note: Driving with a starting aid has to be learned. Practice this procedure only on a pedestrian street. Only when you feel secure and control the process, drive on public roads.**

2. As a turbo support while driving. When you need extra support for a short period, for example on a steep ramp, press the turbo button and to get the highest possible support from the motor.

The turbo support functions independently of the pre-set level of support.

As long as you hold the button, you get the extra boost.

When you release the button, the turbo support stops immediately and the system continues at the previously selected mode.

Turbo mode only works while pedaling simultaneously. When you stop pedaling and / or release the Boost button the turbo assistance from the motor will stop.

> ⚠ **Attention: Please use this button as little as possible. In this setting, much energy is consumed and this will shorten the range of the system.**

1.1.2 Display Content

Battery Status (image 10)

The battery icon shows the charging status of the battery. One bar represents 20% of full capacity (half bar for 10%). If only one bar is shown, only 20% of the maximum capacity of the battery is available.

Now the battery should be recharged as soon as possible.

When the battery icon flashes, there is less than 10% battery capacity remaining. Recharging of the battery is now urgently needed.

image 10

Display	Charging level
Five bars light up	100%
Four bars light up	80%
Three bars light up	60%
Two bars light up	40%
One bar light up	20%
battery icon flashes	Less than 10%

Additionally, you can check the charging level with the LED on the front side of the battery. (See also Section 6.4.1. Charging the battery)

To save energy, it´s not possible to choose the highest support level from a remaining capacity of 10% (one capacity bar of the display is blinking; see also chapter 6.2 on page 15) . From 5% remaining charge on, it´s only possible to use the lowest support level.

Support level (image 11)

The bars in the upper part of the screen show of the chosen level of support of the electric motor.

In the right column of the table we have listed recommended settings, in which driving situation which level will be the best to use the system optimally and minimize power consumption. Of course it is possible to use the levels individually, e.g. driving in the plane with the highest level of support (H).

image 11

| Level	Display	Button	Support	Riding situation (recommended)
UL (Ultra Low)	0 bar	Minus Button	No support; System is activated	downhill
L (Low)	1 bar	Minus or plus Button	Low support	In the plain
M (Medium)	2 bars	Minus or plus button	Medium support	Slightly inclines;
H (High)	3 bars	Plus button	High support	Steep inclines; Fierce headwinds
< 4 km/h	4 bars	By pressing the TURBO button in standstill/without pedaling	Starting and pushing aid	Pushing uphill; Starting aid
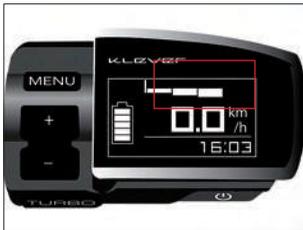
image 12

Speedometer (image 12)

The main display will show you the current speed.

Bluetooth (image 13)

You will see this icon when a Bluetooth connection is establis-
hed and active.

image 13

1.1.3 Settings menu

To access the settings menu, hold the MENU button pressed
for at least 3 seconds. The display panel switches screens.
(image 14)

In the right column you will find 5 different submenus. The left
column stands for assignment of the adjacent buttonss.

- „next" is set to the MENU button

- „enter" is set to the + button

- „exit" is set to the- button

With these buttons you can navigate through and change
system settings.

image 14

You will find 5 submenus as below.

- ABOUT : Information about the system
- COMM.: Pairing of your smartphone
- D-INFO : Information shown on the display
- CONFIG: Configuration of display settings
- RESET   : Resetting various items

ABOUT submenu

In below table you can find the description for the acronyms found in the ABOUT submenu.

The values vary between bike models and individual bikes.

These values are given by the drive system and can not be set on the display.

Acronym	Description	Acronym	Description
MOD	Bike model	VCU	Firmware vehicle control unit
VIN	Vehicle identifikation number	VSN	VCU serial number
ODO	Accumulated kilometers	DRV	Firmware driver
SOC	State of charge	PRN	Profile Number
PRO	Profile name	DCU	Firmware display control unit
BSN	Battery serial number	DSN	Display seat serial number
CYC	Charging cycles	PAN	Firmware panel
BVT	Battery voltage	PSN	Panel serial number
Battery	Battery temperature	TRQ	Torque
DRIVER	Driver temperature	ZTR	Zero torque
MOTOR	Motor temperature	PED	Pedal speed
DC	Designed capacity		

image 15

COMM submenu

You can connect your smartphone via Bluetooth in this sub-menu.

Press the + button to switch on the Bluetooth module. (image 15)

Start the KLEVER CONNECT app on your smartphone.

The Bluetooth module is now searching for your smartphone to establish the connection. (image 16)

image 16

Once the smartphone is successfully connected, it is shown on the display. (image 17)

image 17

Incomming calls will now be shown on the display, either with their number or with the callers name, if stored in your smartphone.

D-INFO submenu

In this submenu you can select which information is shown in the lower right information line of the display.
With select the item with the MENU button and change it´s setting with the + button.
A star icon shows that the item is selected and shown on the display. A blank shows that it is deselected.
(image 18)

image 18

image 19

CONFIG submenu

Here you can set different functions of the Biactron system.

If LOCK is set to ON, the alarm and motor lock function is active when the battrery is in the bike and the panel is taken of it´s seat. (image 19)

The volume of the confirmation sounds can be set in 5 levels or to A for automatic adjustment to the environmental sound.

Front and rear light can be set to always on or off. We strongly recommend to keep the light on at any time, as it improves safety even at daylight.

If PAIR is set to YES, the bike can only be used with the panel that was attached when setting this function. The bike can not be used with other panels.

Under TIME you can set the clock to the current daytime.

image 20

RESET submenu

In this menu you can reset the accumulated kilometers and fitness data.
 You can also delete the established Bluetooth connection or choose to completely set the bike back to factory setting. This will delete all settings and collected data, except of the odometer reading. (image20)

1.1.4 Assembly and disassembly of the display

The display panel can be removed from the control unit. We recommend that whenever you want to park the bike, remove the display panel. This means an additional theft protection, because the system can only be started with this display.

The theft protection function can be enabled in different levels. You will find these options in setting menu.

LOCK on: When display panel is removed, the motor lock and alarm system are activated.

PAIR YES: Only the original display panel can unlock and operate the system.

Disassembly of the display panel

Push the display panel backward against the spring loaded contacts. Then lift the upper portion of the display panel to remove it.

Assembly of the display panel

Insert the lower portion of display panel into the control unit. Push the upper portion of the display panel down until it engages audible. The system can now be started.

Note: Make sure that the console is properly locked so that it will not fall out while riding and being damaged.

If the bicycle is used by several people, you can purchase additional displays panels. Thus, any person who uses this bike has it´s own individual display. (Works only if no display is paired with the bike.)

EC Declaration of Conformity CE

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The manufacturer:

Klever Mobility Inc.
No. 8, Ln.76, Sec.3, Zhongyang Rd.,
Tucheng Dist.; New Taipei City 236
Taiwan

Represented by:
Klever Mobility Europe GmbH
Dieselstr. 8
D-50859 Köln
www.klever-mobility.de
Tel.: +49 2234 93342 0
info@klever-mobility.com

confirms herewith that the following product:
LCD Display 2016

Complies with all relevant provisions of directive: **2006/42/EC** Mashinery.

Similarly, the machinery all provisions of Directive: **2004/108/EC** Electromagnetic Compatibility

The following harmonized standards were applied: **DIN EN 15194** Bicycles-motorized support Bicycles-EPAC bicycles

DIN-EN-ISO 4210 City bicycles: safety requirements and test methods

Technical Documentation:

Klever Mobility Europe GmbH
Dieselstr. 8   Bastian Petri
D-50859 Köln