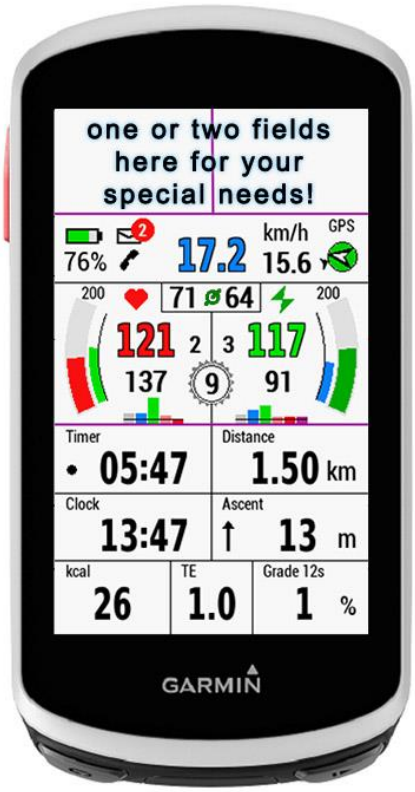
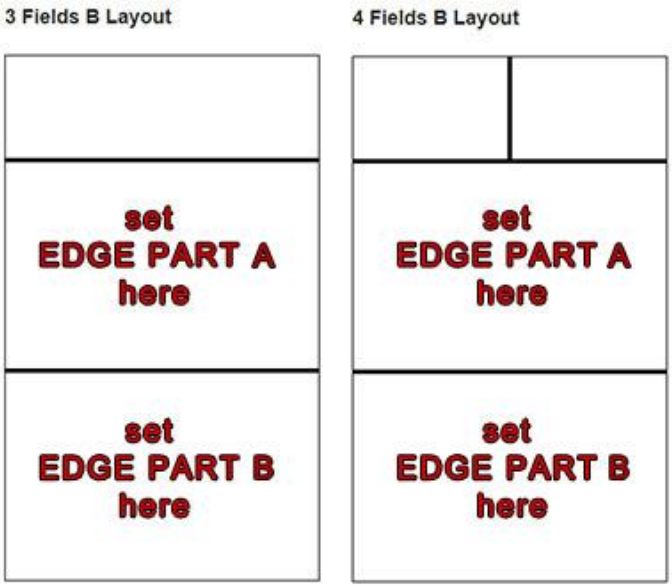
EDGE Part A & B (for Edge 1030, 1040, 530, 540, 830 and 840)

EDGE Part A and B are data fields for 3B or 4B layouts.

The purpose of these data fields is that additionally one or 2 original Garmin data fields (or other IQ data fields) can be set.





This guidance describes both data fields together. They form a unit, although they must be loaded individually from the store and must also be placed individually in the correct field. Each data field has its own setup - but they are described together here.

Both datafields as one display many values for cycling - around the most important values: speed, cadence, heart rate and power.
I have this data field in use for my e-mountain bike.
The data shown on this layout correspond to my own needs.

This datafield is free of charge, but if you like it and use it, it would be nice to be invited to a beer: https://paypal.me/AndreasWirth

After installing both datafield on your device, various settings can be made. This is best done with Garmin Express or Garmin IQ Mobile. Instructions for this can be found here: https://forums.garmin.com/developer/connect-iq/w/wiki/14/changing-connect-iq-app-settings

The following settings are supported:

Datafield EDGE Part A:
-Optional: colored main data numbers
-Power gauge or Cadence gauge
-Maximum value on gauge for Power and Cadence selectable
-Power zones
-Optional: display of Power zone 7
-Optional: display Index of derailleur
-Optional: Save Edge battery charge in FIT and display in Garmin Connect
-Optional: Save rear derailleur index in FIT and display in Garmin Connect
-Optional: display Index of derailleur for Indoor

Datafield EDGE Part B:
-Period for smoothing the Grade display in seconds (5 - 20 sec)
-Optional: Grade display with one decimal place (Edge 1030 and 1040 only)
-Optional: disable the LAP function (Edge 1030 and 1040 only)
-Optional: display of a pulsating timer indicator
-Optional: display a pop up with information for distance and time to destination
    -set period between pop ups
    -set duration of pop up
The automatic pop up feature only applies to the Edge 530 and 540 as they do not have a touch screen. For all other devices with touch screen, the pop ups can be opened by tapping.

Both the **metric** and the **US-American system** of measurement are supported.

The following languages are currently supported:
English, German, French, Spanish, Polish, Italian

To use the power section, a power meter must be paired with the device and the values of the individual power zones must be stored in the settings.

For the heartrate graphs the heartrate zones are taken from your profile. It is therefore necessary that the zones are set in your device!

The upper section of the display:



Battery status

Notifications
For notifications there is a envelope symbol on the display.
If there are unread notifications, a red filled circle with the number of notifications pops up and blinks.
Note: on iPhone there are all kinds of notifications counted. So, be sure that all messages are deleted from the lock screen!

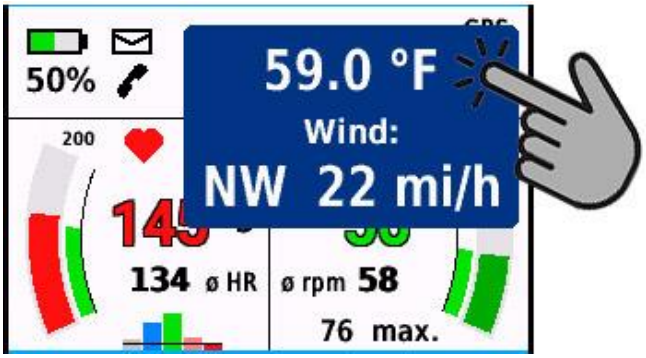
Phone connected
is shown by a phone symbol: grey if not connected, black if connected.

GPS circle
The color of the circle depends on the current GPS signal strength.
red: no GPS available - the GPS label blinks
light red: no GPS available but last GPS Position is shown - the GPS label blinks
light green: poor signal
green: good signal

Compass
There is an arrow inside the circle indicating North direction.
If weather data are available, there is another small arrow outside indicating the wind bearing.

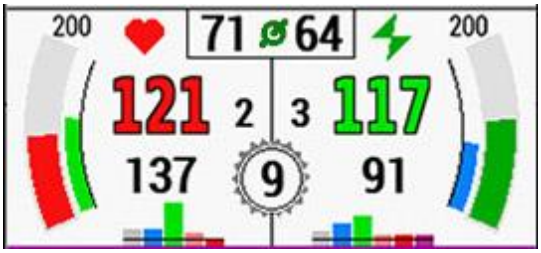
Speed and average Speed
The speed display can optionally be set blue with outline.
Next to it average speed is shown.

Weather data
can be shown **by tapping the region of the GPS and Compass circle**.
(not on Edge 530 and 540)



For the display of wind bearing and wind force, as well as the outdoor temperature, the data of a nearby weather station must be available via Garmin Connect Mobile. The app must therefore be loaded on the phone (but it can work in the background).
If no data is available - pop up will not work.
The pop up window closes itself after 10 seconds - but it can also be closed early by tapping on the window.

Heartrate field and Power field



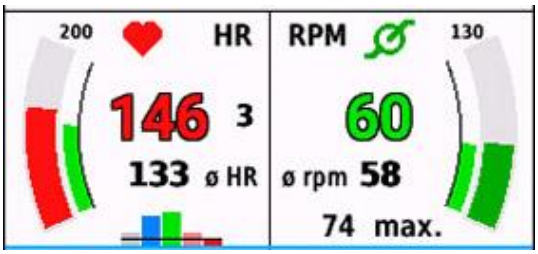
To display the heart rate, a HR-belt or similar must be paired.
The heart rate display can optionally be set red with outline. Next to it a small display shows the current HR zone.

The heart rate zones are read from the user profile stored on the device. It is therefore important that all information in the user profile is entered correctly.
The bar graph continuously shows the time in each zone as a percentage.

To display the power, a power sensor must be paired.
The power display can optionally be set green with outline. Next to it a small display shows the current power zone.

The maximum for the power gauge can be set in settings (100 - 500 W).
Since the power zones cannot be read from the user profile, they must be entered in the settings. Enter the values exactly as they are stored on the Edge under power zones. The bar graph continuously shows the time in each zone as a percentage. By default 6 zones are shown because zone 7 is hardly reached by most cyclists. In settings, however, it is also possible to set zone 7 is also shown.

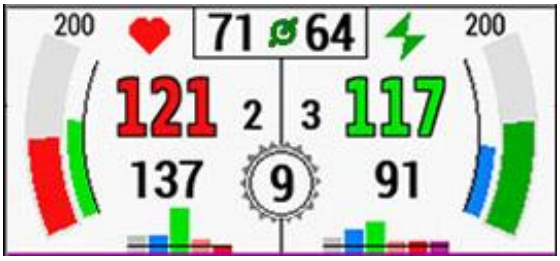
Cadence field

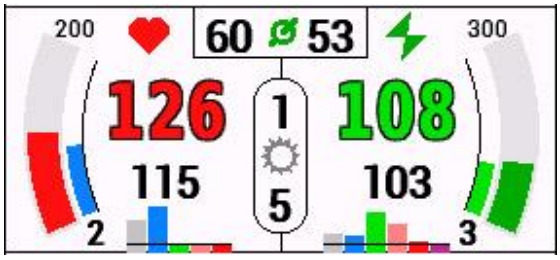


Instead of power you can chose a cadence field in settings.
The maximum of rpm on the gauge can be set in settings (110 - 200 rpm).

For all kind of gauges applies:
-the outer arc represents the current value.
-the inner arc represents the average value in color of the zone.

Derailleur (Gear shifter)





In addition you can set a cogwheel to the display showing the Index of the rear derailleur.
In setup you can chose:
0 … do not show
1 … for mechanical shifter, rear only
2 … for electric derailleurs, rear only
3 … for electric derailleurs, front and rear

For **mechanical shifters** (cadence and speed sensor are necessary!) in setup you have to set:
-rear wheel circumference in cm
-teeth of chainring
-teeth of cogwheels from smallest to biggest
All values are separated by a semicolon.
For my 29" Mountainbike with 30 teeth chainring and SRAM Eagle 12 gears:
220; 30; 10; 12; 14; 16; 18; 21; 24; 28; 32; 36; 42; 50;
Although the program checks the string for plausibility during the evaluation, it is important to enter this series of numbers correctly and not to forget the separating semicolons ";" !
If an error occurred during evaluation of the string, the index 99 is shown on the display.

For a meaningful display of the shift index for mechanical shifting, a speed sensor with manual set wheel circumference must be used!
If the display of the current shift index is not stable, you must vary the rear wheel circumference in the setup in 5 cm steps up or down.
If gear display tends to a lower gear (bigger cogwheel): reduce Wheel circumference
If gear display tends to a higher gear (smaller cogwheel): increase Wheel circumference

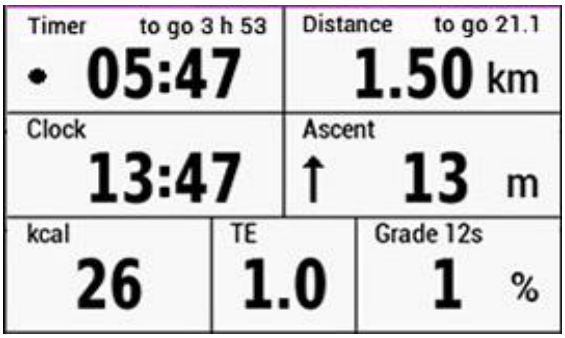
Here starts EDGE Part B:

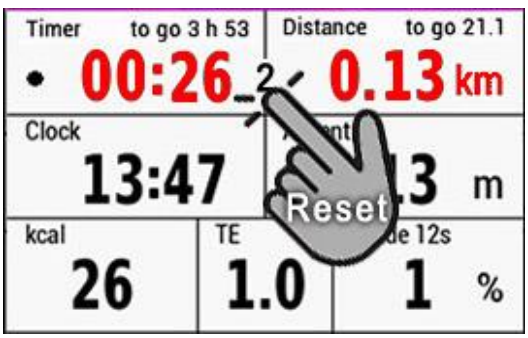
Timer and Distance

On the left side there is the timer for the activity recording.
The timer shows mm:ss for time below one hour and shows h:mm for time more than one hour.
A black pulsating dot is displayed by default, signaling that the timer is running. During a pause, the dot is red. This indicator can be turned off in settings.

On the right side there is the elapsed distance displayed.

For Edge 1030 und 1040 series there is a **Lap function** available (right picture). After a lap event the figures for Timer and Distance toggle between elapsed and lap data (red) every 10 seconds. Tap (exactly) on the lap counter in the middle to reset the lap function. (This has no effect on Garmin's lap data recording!) You can disable this LAP function in the setup.





When a course is loaded, the data for **Time and Distance to Destination** appear at the top.
As long as no average speed is available - e.g. after loading the course but before the start - an avg speed of 10 km/h (6.2 mi/h) is used. After that the time is calculated continuously over the avg speed.

Since the digits for **Time and Distance to Destination** are very small, there is the possibility to read these values comfortably in a pop up window.

For devices with touch screen:

Tap on the fields Timer or Distance.

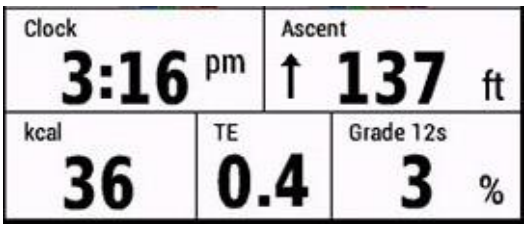


The pop up window closes itself after 10 seconds - but it can also be closed early by tapping on the window.

For Edge 530 and 540 (without touch screen):

You can set an automatic pop up in settings.
Chose pop up duration and pop up interval.
If you don't need pop ups, you can disable this function in the settings.

The bottom section





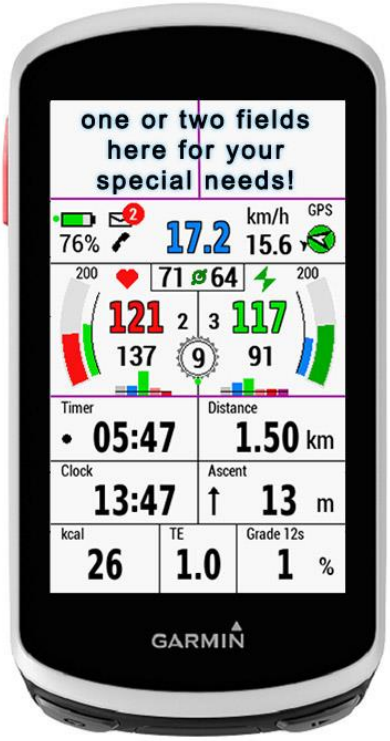
The bottom section of the display shows clock, Ascent, kcal Consumption, Training Effect and Grade or alternatively the Pause time (if paused).

Grade

The display is calculated via the distance traveled and the associated change in altitude. This has to be done in small steps in order to display the current situation in the best possible way.
To get a good compromise between display stability and delay, the time over which the values are averaged can be selected in settings (5 - 20 sec).
The faster the average speed is the smaller the value of seconds may be.
For my mountain bike the best compromise is around 12 sec.

It is also possible to set a decimal place for grade in settings (Edge 1030 and 1040 only).
Though I think, this is overkill considering the calculation situation - but each as he likes!

Log values to the FIT Activity file and show them in Garmin Connect:

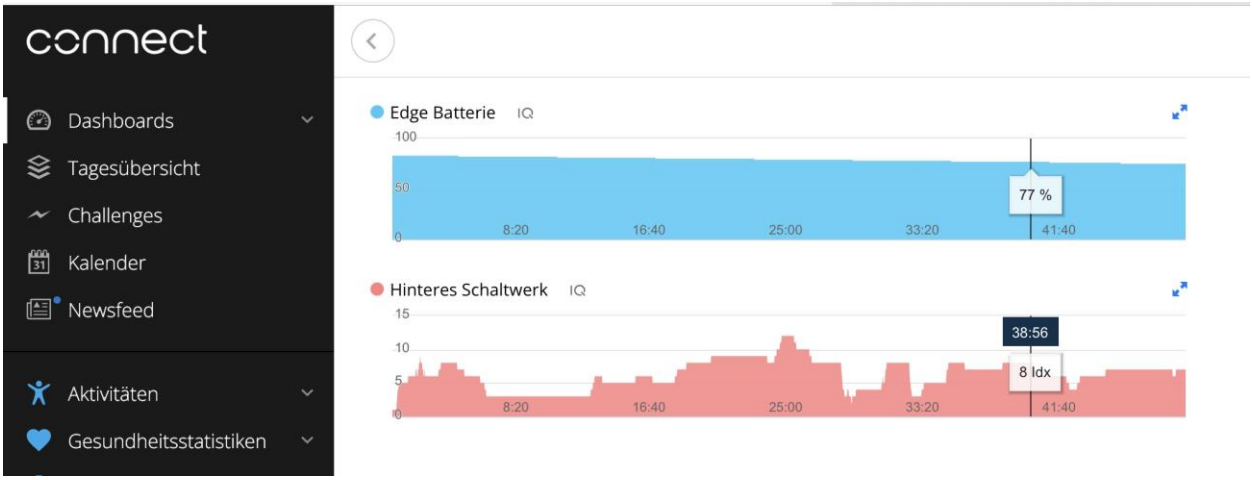


Currently, the following values can be logged and displayed in Garmin Connect:

-Battery Status in %
-Shift index for front and rear

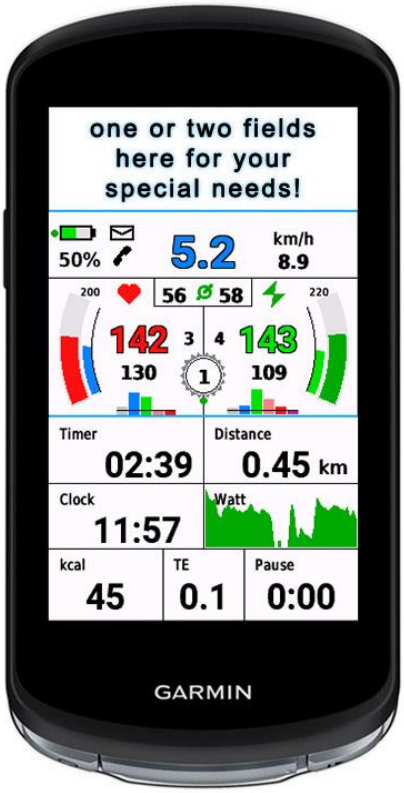
These options must be enabled in the setup.
The readiness to log these values is confirmed by a **small green dot** at battery or derailleur display.

ATTENTION:
After activation in the setup,
the device must be restarted!



Automatic detection of indoor sports

If **Indoor** is assigned to the selected activity profile on your Edge device, the layout changes automatically:



The data of the standard layout that is not relevant for indoor use is hidden and other data is inserted.

Thus, a graph for power over the last 2 minutes is shown in the lower area.
The height of the graph will be adapted to your output.

If you are using a bike for Indoor like on a Tacx NEO trainer, you can define your shifting system in the setup especially for Indoor.