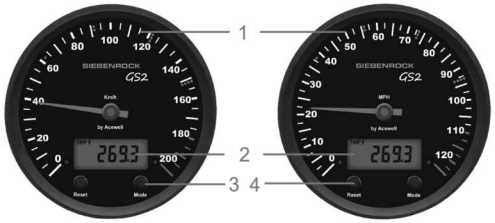
ACEWELL® E13 10R-0513495

ATV/Motorcycle/Scooter/Vehicle Computer
SIEBENROCK CA085-213 User Manual

Thanks for purchasing the ATV/Motorcycle/scooter/vehicle computer; this manual is specifically designed for CA-085-213 series. It has needle speedometer scale, each series has different models. the photo is for reference only.
Different series with different needle tachometer or speedometer scales are as bellows:

CA-085-213-KM: 210 km/h

CA-085-213-MPH: 130 mph



Temperature sensor is an optional parts for these series, temperature function can be set On or Off by user, descriptions with "" are for user who purchases additional temperature sensor reference only.

PANEL DESCRIPTIONS

1. Needle speedometer
2. Digital LCD display
4. RESET Button
5. MODE Button

FEATURES

- Clastic 85mm needle speedometer or tachometer with digital LCD display.
- LCD shows digital functions of speedometer, tachometer, maximum RPM and SPD, average speed, trip meter 1/2, odometer, riding time, total riding time, total hour meter, volt meter, temperature meter, volt meter and clock.
- Built-in RGB LED backlight, user can adjust his/her prefer backlight color. Backlight can be switched on independently.
- Fast processor so can connect to pulse type gearbox speed sensors.
- Allows end user to adjust odometer when the odometer is less than 30km / 18.6 miles.
- Universal wheel circumference setting range: 1-3999mm.
- CA-085-1XX/2XX includes main unit, bracket, RPM sensing wire, speed sensor, fitting kits, wiring harness and sleeve of main unit.
- Excellent water resistant, anti-vibration structure and noise immunity design.

SPECIFICATIONS

Functions	Symbol	Specifications
Needle Speedometer		CA-085-213-XX: 210 km/h CA-085-131-XX: 130 mph
Speedometer	Km/h / MPH	2.4-399.9 km/h (248.5 MPH)
Trip meter 1&2	TRIP 1or 2	0.00-999.99 KM /624.99Miles
12/24 Hour Clock	⏲	AM/PM 0:00' – 11H59' / 23H59'
Digital Tachometer	rpm	100～19,900 rpm
*Temperature Meter	TEMP	0℃-180℃ / 32℉-356℉, HI or Off <0℃ display -L-, >180℃ display -H-
Average speed	AVG	2.4-399.9 km/h (248.5 MPH)
Maximum speed	MAX SPD	2.4-399.9 km/h (248.5 MPH)
Riding timer	MAX RT	0-99H59'59''
Maximum RPM	MAX RPM	100～19,900 rpm
*Max. Temperature	MAX TEMP	0℃-180℃ / 32℉-356℉
Odometer	ODO	0 - 999999 KM, 0-624999 Miles
Total Riding Time	TT	0-999999H
Hour meter	HRTT	0-999999H
Voltage Gauge	V	8-18VDC, battery voltage warning settable
Maintain reminder	Trip	0-9999km

Power Input	DC 12V
Tachometer Sensor	CDI or Ignition Coil Signa
Speed Sensor	Reed or hall Sensor for C
*Temperature Sensor	Thermo Sensor for CA-085
Speed input divider setup	1-199 Pulses
Maximum speed input frequency	7K Hz
Wheel circumference setting	1mm-3999mm
Dimensions	Ø85*56.1mm

: Digital Voltage and Battery Warnings
1. It checks bike's battery and charging systems health.
2. Indicates range 8-18VDC.

+TRIP: Maintenance Reminder
1. The maintenance reminder is set by trip meter, and an "Off" mode to switch it off.
2. The trip meter maintenance can be set up to 9999km.

FUNCTIONS

Needle Speedometer:
1. Indicates speedometer by analogue needle.
2. Speedometer Scale shows the needle maximum speed of the model as bellows:

CA-085-213XX: 210 km/h

CA-085-213XX: 130 mph

RPM: Digital Tachometer
1. It displays digital tachometer up to 19,990RPM and displays 19,999 rpm when tachometer is over 20,000rpm..
2. It has 2 wires to pick up RPM signal, the yellow wire is to connect to Plug, and white wire is for signal from ECU or Ignition coil.

Shift Warning RPM
1. The function enables you to set up a shift warning RPM.
2. Shift warning LED indicator flashes when RPM reaches setting value, and stops flashing after you shift gear.

MAX RPM: Maximum Tachometer
Displays highest tachometer achieved since last Reset operation.

SPD: Speedometer
1. Displays speed meter up to 399.9 Km/H or 248.5 MPH.
2. The maximum frequency from speed sensor is 7K Hz.
3. With a small wheel size and large number of pulses per wheel revolution it may not be possible to display very high speeds.

MAX SPD: Maximum Speed Meter
Displays highest speed achieved since last Reset operation.

AVG: Average Speed Meter
It calculates average speed from last RESET. The AVG is calculated from TRIP be divided by RT.

TRIP 1 or 2: Trip Meter 1 or 2
TRIP function accumulates trip distance since last RESET as long as bike/vehicle is moving.

ODO: Odometer
1. ODO accumulates total distance traveled.
2. ODO data is adjustable when it is less than 30km (18.6 Miles), after that it stored in memory and cannot be reset.

RT: Riding Timer
1. Calculates total running time since last RESET.
2. Counter automatically begins with movement.

TT: Total Riding Timer
1. Calculates total riding time from the beginning of the bike.
2. TT data is stored in memory, and cannot be reset.

HRTT: Total Hour Meter
1. Calculates total engine operation time since installation RESET.
2. Count automatically begins with engine starting.
3. HRTT data is stored in memory, and cannot be reset.

⏲ : 12/24 hour Clock
It displays 12 or 24 hour current time.

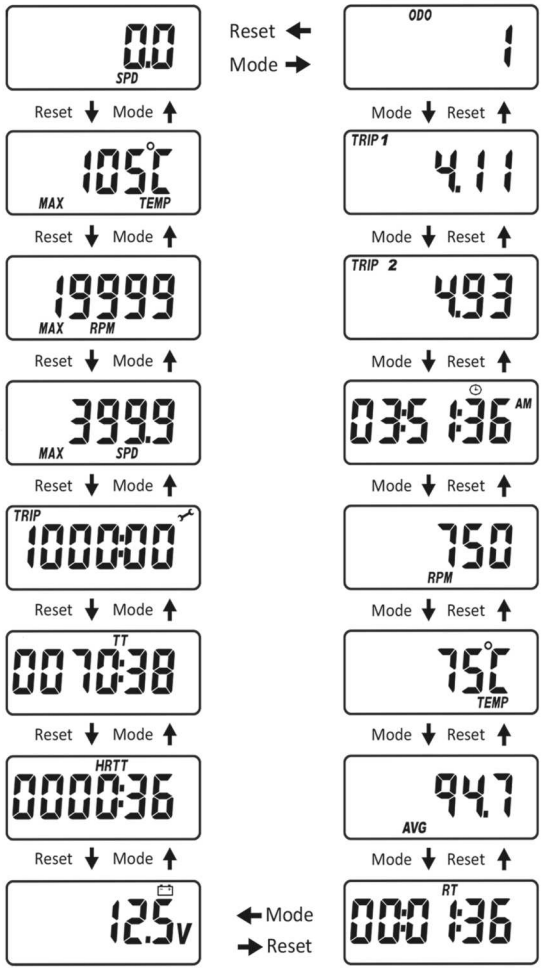
****TEMP: Temperature Meter***
1. It measures and displays from 0℃-180℃ / 32℉-356℉.
2. It displays -L-℃ or -L-℉ when temperature is lower than 0℃(32℉) or disconnected temperature sensor, and displays -H- ℃ or –H-℉ when temperature is over 180℃ or 356℉..
3. The LCD backlight flash red and green in turn and temperature LED indicator (for models with temperature warning indicator only) flash when the thermo sensor detects temperature higher than the maximum preset temperature.

****MAX TEMP: Maximum Temperature***
Displays highest temperature achieved since last Reset operation.

BUTTON OPERATIONS

MODE Button
Press the MODE button to move partial functions in loop sequence as "→" from one function screen to another.

RESET Button
Reset button cycles through functions in reverse order



DATA RESETTING AND PROGRAMMING MODES

1. Press MODE or RESET button to reach the desired screen then press RESET button for 2 seconds to reset TRIP 2, MAX SPD, MAX RPM and MAX TEMP data from stored values to zero individually. The maintain reminder data will be reset to the preset value rather than zero.
2. The data of Trip 1, AVG & RT will all be reset at the same time when one of the 3 data functions is being reset.
3. ODO, clock, HRTT and TT data cannot be reset.

Shift Warning RPM Operation

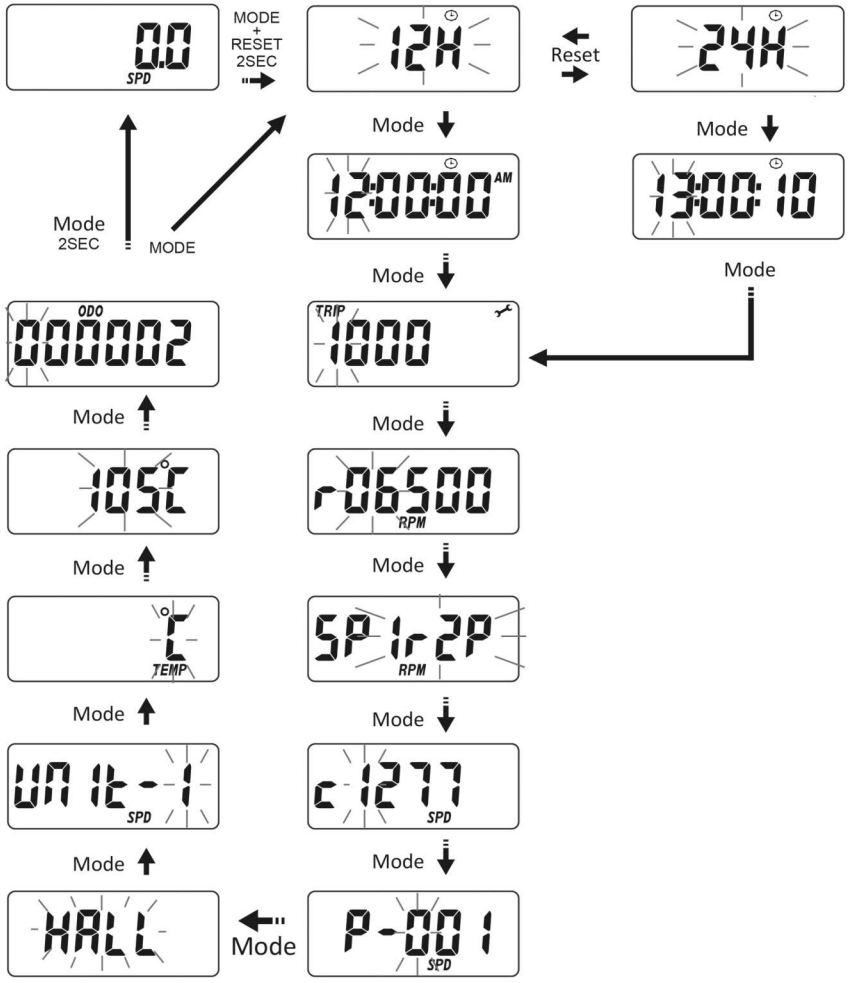
1. Press MODE or RESET button to reach the RPM screen; pull on the throttle until the desired shift warning RPM.
2. Press RESET button to confirm and set up the shift warning RPM.
3. Warning LED will flash to remind you shift gear.
4. Press RESET button for 2 seconds at the RPM screen to re-adjust the shift warning RPM.

Backlight Color Adjust:

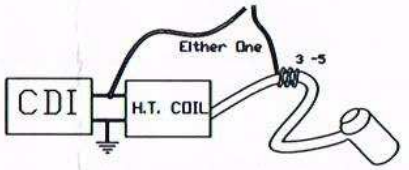
1. Press MODE button to get to the VOLT screen when not moving; push and hold RESET button for 2 seconds to go into backlight color setting mode.
2. It displays "LED RGB and RX-GX-BX", the X after R, G and B indicate each color of Red, Green or Blue color to be adjustable, each color has 10 levels 0, 1, 2,.9 for setting, "0" means the color is off, "9" means the color is turned on 100%.
3. Each press of the RESET button increments the flashing digit by 1, press MODE button to confirm the flashing digit setting and jump to next digit to be set. Press MODE button for 2 seconds to finish the setting and go to normal mode Trip 1.

Clock, RPM, Wheel, Divider, Unit, Maintain, Thermometer, fuel meter and ODO SET UP

1. Setup operations include 12/24hour clock, maintain reminder, shift warning RPM, numbers of engine rotation per signal, wheel circumference, speed pulses, speed sensor type, temperature unit and warning, and odometer adjustment. These must be set up step by step. The computer will be automatically revert to normal mode if no button is pressed for 75 seconds at any setting screen.
2. Press both MODE & RESET buttons to go into setting mode. In setting mode, each press of the RESET button increments the flashing digit by 1 or converts units.Press MODE button to confirm the digit setting and jump to next digit or next setting screen to be set.Press MODE button for 2 seconds at any setting screen to finish the setting and go to normal mode.
3. It displays "12 or 24H and XX:XX:XX " symbols and AM/PM when you select 12H. Operate buttons as described in item 2 to finish clock setting and jump to maintain reminder setting.
4. It displays "🔧, TRIP and 1000" means the reminder is based on trip meter. Follow the item 2 of button operation to finish the maintenance reminder setting and jump to shift RPM warning setting.
5. It displays the default "RPM r06500", the digit "0" flashes. Follow the item 2 of button operation to finish the shift RPM warning setting and jump to engine specification setting.
6. It displays "RPM SP 1r1P", the default value is 1r1P; there are 5 options: 1r1P, 1r2P, 1r4P, 2r1P, 3r1P, "r" means the numbers of engine rotation, "P" means number of signals from engine. For example the value 2r1P means the engine rotates 2 turns to output one signal.
7. Press RESET button to move in loop sequence from one to another value of the 5 values. Press MODE button to confirm the setting and go to wheel circumference setting.
8. In "SPD cXXXX" display, "c" means "Circumference", following 4 default digits; flashing digit is digit to be set. Follow the item 2 of button operation to finish the wheel circumference setting and jump to signal divider setting.
9. It displays "SPD P-001", the pulses screen, the number of pulses into the computer per turn of the wheel. Follow item 2 of button operation to finish the setting and jump to speed sensor type setting.
10. It displays HALL or rEEd, HALL type is for Acewell's unique 2 wires hall sensors only, rEEd type is for reed sensors, gear sensors and signals from ECU. A gear sensor has 3 wires and must be powered from the bike. Follow item 2 of button operation to confirm the sensor type and jump to speed unit setting screen.
11. It displays "SPD UNIt-1 or 2", 1 means KM/H and 2 is for MPH. Follow item 2 of button operation to finish the setting and jump to temperature unit setting.
12. *It displays "TEMP and ℃ , ℉ or HI or oFF", each press of RESET button converts ℃, ℉, HI or Off, the temperature meter will disappear when you select oFF mode; press MODE button to confirm temperature setting and jump to temperature warning setting. In "HI" mode connecting the input wire to ground can flash red and green backlight and/or temperature warning LED indicator.
13. *It displays "XXX" and the selected unit. Follow the item 2 of button operation to finish the temperature warning setting and go to odometer setting.
14. It displays "ODO & 00000X km", the "X" is from odometer testing in factory, follow item 2 to set a desired odometer value and jump to clock setting or return to Normal Mode. This setting screen will disappear when the odometer is over 30km (18.6Miles) or your setting is over 30km.



RPM-INPUT ACEWELL



Model :

SIEBENROCK
CA85-213
Version : C

(550mm)

red/rot/rosso

A
black/schwarz/nero
light green/light gruen/light verde
yellow/gelb/giallo

B
green/gruen/verde
purple/violett/viola

250mm

C
white/weiss/blanco
purple-white
violett-weiss/viola-blanco

D
pink/rosa/rosa
blue white
blau-weiss/blu-blanco
Black/White
schwarz-weiss/nero-blanco

Clock Power/Spannung Uhr
DC Power
Gnd/Masse
Switch Key/ Zundspannung
RPM/Drehzahl

b
Speed/Geschwindigkeit
Gnd/Masse
white/weiss/blanco
red/rot/rosso
E
1000mm

e
red/rot/rosso
Hall sensor-TA7
white/weiss/blanco

c
TEMP
TEMP
white/weiss/blanco
red/rot/rosso
F
1000mm

f
100K Ω
white/weiss/blanco
red/rot/rosso

*c/F= Verlangerungskabel fur Motortemperatursensor,optional erhaltlich

*f=Motortemperatursensor,optional erhaltlich

d
ACE-KEY01
Mode Key
SET Key
Gnd
red/rot/rosso
yellow/gelb/giallo
black/schwarz/nero

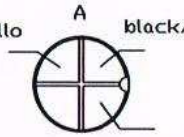
*d= Fernbedienelement,optional erhältlich

PART NO.	4412CA213W02AR
MODEL NO.	SIEBENROCK CA85-213
VERSION	C(2018/5/25)
Tel	+497161/9871639
Fax	+497161/9874458
Mail	info@acewell.de

Acewell-Technologies

A

yellow/gelb/giallo



black/schwarz/nero

light green/light gruen/light verde

B

purple/violett/viola

green/gruen/verde

(White/weiss/bianco)

b

red/rot/rosso

white/weiss/bianco

(White/weiss/bianco)

E

white/weiss/bianco

red/rot/rosso

(White/weiss/bianco)

e

red/rot/rosso

white/weiss/bianco

(White/weiss/bianco)

purple-white/violett-weiss/viola-bianco

white/weiss/bianco

C

(Black/schwarz/nero)

C

red/rot/rosso

white/weiss/bianco

(Black/schwarz/nero)

F

red/rot/rosso

white/weiss/bianco

(Black/schwarz/nero)

f

red/rot/rosso

white/weiss/bianco

(Black/schwarz/nero)

D

Blue/White

blau-weiss/blu-bianco

pink/rosa/rosa

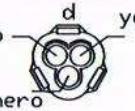
Black/White

schwarz-weiss/nero-bianco

White/weiss/bianco

d

red/rot/rosso



yellow/gelb/giallo

black/schwarz/nero

White/weiss/bianco

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