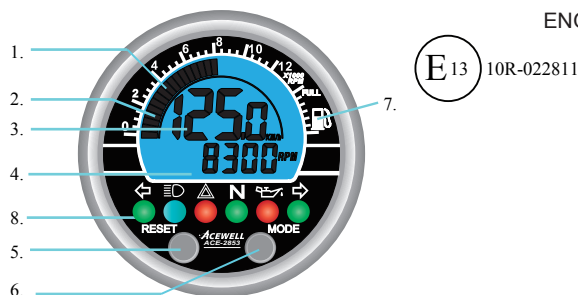# ACEWELL ATV Computer
ACE-27xx/28xx series User's Manual
www.acewell-meter.com

ENGLISH

E 13   10R-022811

Thank for purchasing an Acewell ATV/Motorcycle/Scooter computer. This manual is specially designed for the ACE-27xx/28xx series. Each model has 4-6 LED indicators. Different models have different LED indicators; a fuel meter is optional, but all other functions are the same. You may find that the photo above has a set of LED indicators different from your computer; the photo is for reference only.

PANEL DESCRIPTIONS

1. Bar Speed Scale
2. Bar Speed
3. 1st row display: Speedometer, Maximum Speed
4. 2nd row display: Other functions .
5. RESET Button
6. MODE Button
7. Fuel Meter Bar: (optional)
8. LED indicator symbols

Symbol	Description	Symbol	Description
⇐	Left-Direction Indicator/Green	⛽	Engine Oil/Red
≡D	Main-Beam Headlamp/Blue	N	Neutral Gear/Green
⇨	Right-Direction Indicator/Green	R	Reverse Gear/Red
⚠	Hazard Warning/ Red	D	Drive Gear/Green
P	Parking/Green	🌡	Engine Coolant Temperature/Red
⇦⇨	Direction Indicator/Green	🌫	Rear Fog Lamp/Amber
⇦1⇨	Trailer Flashers/Green	⊠	Engine "Not In Use"/ Red

FEATURES

- Includes analog and digital tachometer, speedometer (300km/h), trip meter, odometer, clock, average speedometer, maximum speedometer, riding timer and cumulative riding timer.
- Computer unit has 4-6 built-in LEDs for different purpose indicators.
- LCD has two rows of digital and one analog bar-graphic tachometer displays, with white LED backlight.
- 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
- Speedometer can show nearest 0.1 mph or km/h speed if required by user. E.g. 100 or 100.5.
- The computer's clock is always on, even when.
- other functions are power-off.
- Universal wheel circumference setting range of 1-3999mm.
- Metric/ British system options.
- Waterproof design.

SPECIFICATIONS

FUNCTIONS	SYMBOL	SPECIFICATIONS	INCREMENTS	ACCURACY
Bar Tachometer	◠	500-12,000 rpm	500 rpm	
Digital Tachometer	RPM	100-19,900rpm	100 rpm	
Shift Warning	RPM	100-19,900rpm	100 rpm	
Maximum Tachometer	MAX RPM	100-19,900rpm	100 rpm	
Speed Meter		2.3-300KM/h (187.5M/h)	0.1 KM/H or M/H	+/-1% or +/- 0.1(KPH/MPH)
Maximum Speed Meter	MAX	MAX 2.3-300KM/h (187.5M/h)	0.1 KM/H or M/H	+/-1% or +/- 0.1(KPH/MPH)
Average Speed Meter	AVG	AVG 2.3-300KM/h (187.5M/h)	0.1 KM/H or M/H	+/-1% or +/- 0.1(KPH/MPH)
Trip Meter	TRIP 1&2	0.0-999.9 Km (624.9 Miles)	0.1 Km or Miles	+/- 0.1%
Odometer	ODO	0 - 999999 Km (0.0- 624999 Miles)	1 Km or Miles	+/- 0.1%
Riding Time	RT	0.00'00"- 99:59'59"	1 Second	+/- 50PPM
Total Time	TT	9999H59'	1 Minute	+/- 50PPM
Total Hour Meter	RTT	0-9999H59'	1 Minute	+/- 50PPM
Clock	🕐	0.00'00"- 24:59'59"	1 Second/1 Minute	+/- 50PPM
Bar-Fuel Gauge	◡	+/- 100Ω, 250Ω, 500Ω options or Off 1-7 Bar-graphic		

Power Input: 12VDC.
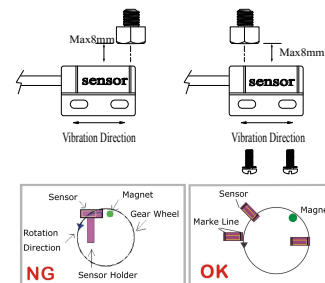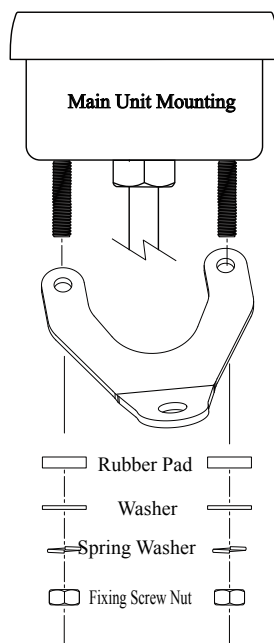Speed Sensor: No Contact Magnetic Sensor.
Tachometer Input: CDI or Ignition-coil signal.
Wheel Circumference Setting: 1mm - 3999 mm (1 mm increment)
Operation Temperature: -10˚C - +80˚C (inner housing)
Storage Temperature: -25˚C - +85˚C (inner housing)

INSTALLATIONS & PARTS

Max8mm   Max8mm

sensor   sensor

Vibration Direction   Vibration Direction

Main Unit Mounting

Rubber Pad
Washer
Spring Washer
Fixing Screw Nut

NG   OK

Speed Sensor & Magnet Mounting
Attention：
1. This is universal sensor for ATV front or rear wheel installation or motorcycle front wheel installation. For some fitments an accessory speed sensor holder may need to be purchased.
2. Find a rotating part to install magnet (for example disk,sprocket or driveshaft) and a location to install the sensor where it can be aligned to the magnet.
3. Align the center of the magnet to center of side face of the sensor.
4. Make sure the gap between the magnet and the sensor is within 5 mm.

RPM Sensor Mounting
1. Signal intensity from ignition coli is dependent on vehicle type.
2. Circles 2-5 turns around ignition coil, with more turns creating steadily signal, fewer turns creating weaker signal.
3. The computer can use all type of ignition system, only if the RPM is not stable you must sometimes add the attached 1MOhm resistor in the wire of the RPM input.

RPM-INPUT
Either One
2-5 Turns
CDI   Ignition Coil
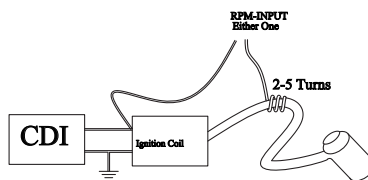
FUNCTIONS

BAR RPM: Bar Graphic Tachometer
1. The bar graphic tachometer reading is always displayed at the bar graph.
2. Tachometer bar graphic displays up to 12,000 RPM.

RPM: Digital Tachometer
1. RPM is displayed in 2nd row.
2. Digital tachometer displays up to 19,900 RPM.
3. Tachometer signal picked up from either CDI or Ignition coil.

Shift Warning RPM
1. Function enables you to set up an RPM shift warning.
2. Bar-graphic tachometer flashes when RPM reaches pre-set value, and stops flashing after you shift gear.

MAX RPM: Maximum Tachometer
1. MAX RPM is displayed on 2nd row.
2. Displays highest tachometer reading achieved after last RESET operation.

SPD: Speed Meter
1. Speed meter display is on 1st row of the screen.
2. Displays speedometer reading up to 300.0 Km/H or 187.5 mph.

MAX: Maximum Speed Meter
1. MAX is displayed on 1st row.
2. Displays highest speed achieved after last RESET operation.

AVG: Average Speed Meter
1. AVG is displayed on 2nd row.
2. Calculates average speed from last RESET.

TRIP 1 & 2: Trip Meter 1& 2
1. TRIP function registers cumulative trip distance from last RESET while bike is being ridden.
2. Display is on 2nd row of screen.

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 operation time from last RESET.
2. Count automatically begins with vehicle movement.

TT: Total Riding Timer
1. Calculates total operation time from the beginning of bike use.
2. Count automatically begins with vehicle movement.
3. TT data is stored in memory, even when power is off.

RTT: Hour Meter
1. Calculatew total engine operation time from last RESET.
2. Count automatically begins with engine staring.
3. RTT data is stored in memory, and couldn't be reset.

12/24 hour Clock
It displays 12- or 24-hour current time.

Fuel Meter
1. Has 7 bargraphic indicator of fuel status.
2. Last bar flashes to indicate low fuel level.

MODE BUTTON
1. Press the MODE button to move all functions in loop sequence from one function screen to another when the speed sensor does not detect any signal input.

2. Press the MODE button to move partial functions in loop from one function screen to another when speed sensor detects signal input.
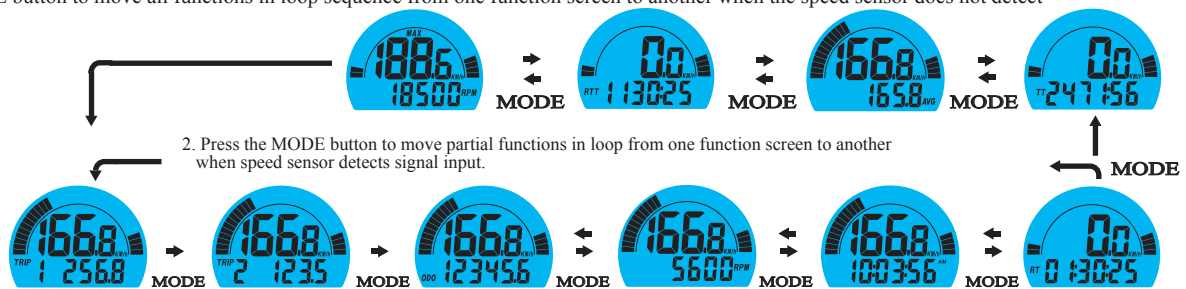
RESET BUTTON
1. Press MODE button to the desired screen then press RESET button for 2 seconds to reset TRIP 2, MAX, and MAX RPM data from stored values to zero individually.
2. The data of TRIP 1, AVG & RT can be reset at the same time when one of the three data functions is being reset.
3. ODO, Clock and TT&RTTdata cannot be reset.

SHIFT RPM WARNING OPERATION
1. Press MODE button to the RPM screen; pull on the throttle until the desired shift RPM warning displayed.
2. Press RESET button to confirm and set up the shift warning RPM.
3. Bar-graphic tachometer will flash to warning you shift gear.
4. Operate items 1 & 2 to readjust the shift warning RPM.

WHEEL CIRCUMFERENCE TABLE

1. The details below have been calculated using the following formula; Tire Diameter (inch) x 25.4(mm/inch) x 3.1416 = wheel circumference (in mm).
2. Identify the tire size of your ATV/Motorcycle when you need to change different tire, and key in the corresponding number shown in the following chart.

Tire Size	Circumference	Tire Size	Circumference	Tire Size	Circumference
15 inch	1197mm	19 inch	1516mm	23 inch	1835mm
16 inch	1277mm	20 inch	1596mm	24 inch	1915mm
17 inch	1357mm	21 inch	1676mm	25 inch	1995mm
18 inch	1436mm	22 inch	1756mm	26 inch	2075mm

CLOCK, RPM, WHEEL, DIVIDER, UNIT, FUEL METER AND ODO SET UP

1. Setup operations include 12/24 hour clock, shift warning RPM, numbers of engine rotation per signal, wheel circumference, signal divider, units, decimal, fuel meter input resistance selection 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 warning 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 as well AM/PM in case you select 12H. Operates buttons as descriptions of item 2 to finish clock setting and jump to Shift RPM warning setting.
4. It displays the default " r06500 ", the digit "0" flash. Follow the item 2 of button operation to finish the shift RPM warning setting and jump to engine specification setting.
5. It displays " SP 1r1P RPM", the default value is 1r1P; there are 5 options: 1r1P, 2r1P, 1r2P, 1r3P, 1r4P. "r" means the numbers of engine rotation, "P" means number of signals from engine. For example the value 2r1P means the engine rotate 2 turns to output one signal. 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 screen.
6. 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.
7. It displays "P-001" for signals to be divided. Follow item 2 of button operation to finish the setting and jump to unit setting.
8. It displays KM/H or MPH, each press of RESET button converts unit; press MODE button to confirm unit setting and jump to decimal point setting.
9. It displays "100.0Km/H & on" or "100Km/H & oFF", the decimal point will be disappeared in case Off is selected. Follow the item 2 of buton operation to finish the decimal setting and jump to Fuel sensor resistance setting..
10. It displays " SPD P-001",the pulses screen, the number of pulses into the computer per turn of wheel. Follow item 2 of button operation to finish the setting.
11. It displays "100r" and fuel tank symbol, follow the item 2 to select 100, 250, 510ohm, oFF, -100, -250 or -510Ohm and jump to odometer setting.. The fuel meter bar will disappear if you select oFF mode.
12. 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.

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