·ACEWELL ATV Computer
ACE-2956 series User's Manual
www.acewell-meter.com

E 13 10R-022811

Thank for purchasing an Acewell ATV/Motorcycle/Scooter computer. This manual is specially designed for the ACE-2956xx 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. Temp 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 blue LED backlight.
- Odometer and cumulative riding timer measurements are stored in memory, even when power is off.
- 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.

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
Clock		0.00'00"- 24:59'59"	1 Second/1 Minute	+/- 50PPM
Temperature	℃/℉	0℃-180℃/32℉ - 356℉	1℃/℉	± 1℃/℉

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

Main Unit Mounting

Rubber Pad
Washer
Spring Washer
Fixing Screw Nut

Max8mm
Max8mm
sensor
sensor
Vibration Direction
Vibration Direction
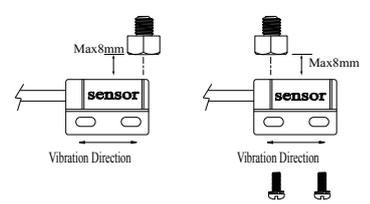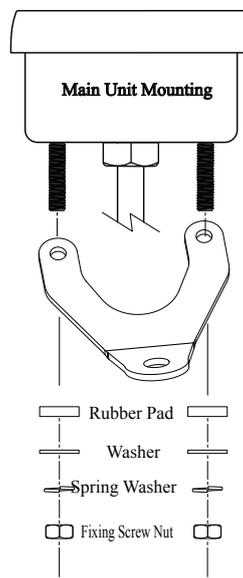
Speed Sensor & Magnet Mounting
Attention：
1. Align the center of the magnet to either the sensor marking line or the end of the sensor.
2. Installing the sensor parallel to the vibration direction creating optimal anti-vibration effect.
3. Be sure the gap between the magnet and the sensor is within 8mm.

RPM Sensor Mounting

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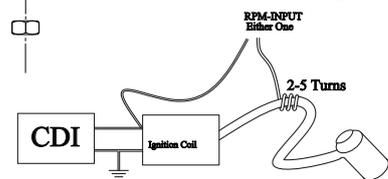
1. Signal intensity from ignition coli is dependent on vehicle type.
2. Circles 2-5 turns around ignition coil, with more turns creating steadily signal, fewer turns creating weaker signal.
3. The computer can use all type of ignition system, only if the RPM is not stable you must sometimes add the attached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

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 registers cumulative distance traveled during motorbike operation.
2. ODO data is stored in memory, even when power is off.

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.

12/24 hour Clock
It displays 12- or 24-hour current time.
Fuel Meter (Only for models with the function)
1. Has 7 bargraphic indicator of fuel status.
2. Last bar flashes to indicate low fuel level.

℃ or ℉: Temperature Meters
1. It displays -L-℃ or -L-℉ when temperature is lower than 0℃ or 32℉, and displays-H-℃ or -H-℉ when temperature is over 180℃ or 356℉.
2. The LCD screen will automatic change to temperature screen and flashes the digits of temperature when the thermo sensor detects temperature over the presetting warning temperature; The MODE key is out of function until the temperature cooling down and lower than the presetting waring temperature.

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.
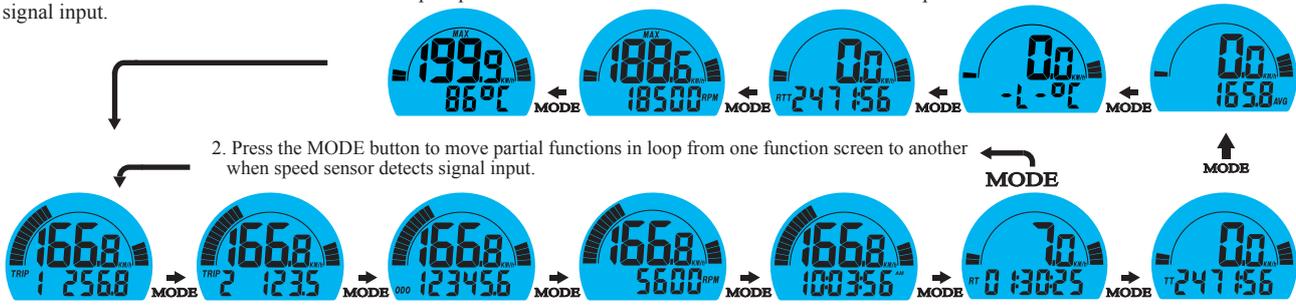
2. Press the MODE button to move partial functions in loop from one function screen to another when speed sensor detects signal input.

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 data cannot be reset.
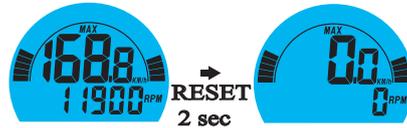
SHIFT RPM WARNING OPERATION

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.

The speedo works by receiving electric pulses from the speed sensor. As the pulse rate increases the speed reading increases. To display an accurate speed reading the distance travelled between each pulse needs to be entered in millimetres.

The first piece of information needed is the distance travelled per turn of the wheel.
Mathematically wheel circumference (in mm) = Tyre Diameter (in mm) x 3.1415 = Tire Diameter (inch) x 25.4(mm/inch) x 3.1416
To easily obtain the reading, mark the tyre and the ground where they touch. Push the wheel forward one revolution and mark where the ground again. Measure the distance in mm - this is the rolling circumference, enter the distance into the "C" screen following the instructions below.

The second piece of information needed is the number of pulses per turn of the wheel - and this is entered into the "P" screen as below.
When using a magnet sensor system enter the number of magnets on the wheel - if you have 1 magnet then P=001, 4 magnets then P=004
If using a cable drive adaptor then enter the number of turns of the speedo cable per turn of the wheel, it will most likely be 2 or 3.
When using a factory speed sensor on the front hub, front sprocket or inside the gearbox then the number of teeth on the sensor need to be counted (and multiplied by the drive ratio in some cases).
Always check your calibration against a GPS and ensure that the displayed speed is greater than the speed shown on GPS.
To increase a speed reading increase the number entered into the "C" screen.

1. Setup operations include 12/24hour clock, shift RPM warning, numbers of engine rotations per signal, wheel circumference and units. These must be set up step by step. The computer will automatic reversion to main screen if no button operation for 75 seconds at any setting screen.
2. Press both MODE & RESET buttons to go into setting screen. In setting screens, press RESET button to add the flashing digit by 1, press MODE button to confirm the digital 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 main screen.
3. It displays "12 or 24H and XX:XX-XX" symbols and AM/PM in case you select 12H.
4. Press RESET button converts 12/24H, press MODE button to complete the setting and jump to clock digit setting.
5. Press RESET button to increase flashing digit by one; press MODE button to confirm digit setting and jump to next digit.
6. Press MODE button to go to shift warning RPM setting screen after set clock.
7. It displays "rXXX00 RPM". Press RESET button to increase flashing digit by one; press MODE key to confirm digit setting and jump to next digit.
8. Press MODE button to go to numbers of engine rotations per signal setting screen after completed shift warning RPM setting.
9. It displays "RPM SP 1r1P", the default value is 1r1P; there are 5 options: 1r1P, 1r2P, 1r3P, 1r4P, 2r1P, means the numbers of enginerotation, "P" means number of signals from engine. For example the value 2r1P means the engine rotates 2 turns to output one signal.
10. Press RESET button to move in loop sequence from one to another value of the 4 values. Press MODE button to confirm the setting and go to wheel circumference setting screen.
11. In "cXXXX" display, "c" means "Circumference", following 4 default digits; flashing digit is digit to be set.
12. Press RESET button to increase flashing digit by one; press MODE button to confirm digit setting and jump to next digit.
13. Press MODE button to jump to unit setting screen.
14. It displays KM/h or M/h, each press of RESET button converts unit; press MODE button for 2 seconds to confirm unit setting and jump to main screen.
15. 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 unit setting.
16. 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.
17. It displaysm "°C or °F" , each press of RESET button converts °C or °F ; press MODE button to confirm temperature setting and jump to temperature warning setting.
18. 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