

TACHOMETER

VAPOR



USER'S MANUAL

A



TRAIL TECH

COMPUTER

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A Note to You

Thanks for Buying a Trail Tech Powersport Computer:

Trail Tech powersport computers bring functionality and life to your motor vehicle with high quality and innovation. To ensure you enjoy years of trouble-free operation, this user's manual contains valuable information about how to operate and maintain your computer properly.

Please read this manual carefully.

Please Record Important Information:

Whenever you call to request service for Vapor, you need to know the date of purchase, dealer's name, address, and telephone number.

PURCHASE DATE _____

DEALER NAME _____

DEALER ADDRESS _____

DEALER PHONE _____

Keep this book and sales slip together for future reference.

Precautions

WARNING:

When using Vapor, follow basic precautions, including the following:

- Read all instructions before using Vapor.
- Use Vapor only for its intended function.
- To reduce the risk of injury, do not disassemble Vapor or its accessories.
- Vapor can be used in the rain but should not be used underwater.
- Do not leave the main unit in direct sunlight when not riding.
- Check relative positions and gap between sensor and magnet periodically.
- Do not bend, twist, kink or otherwise abuse the black sensor cable. A damaged cable may produce incorrect readings.
- Do not abuse wires on back of Vapor. The wires carry high voltage power from the vehicles ignition system. Damaged wires may also produce incorrect readings.
- Avoid contact with gasoline, degreasers or other chemical cleaners as they may damage the computer.

**REMEMBER TO PAY ATTENTION
TO THE TRAIL WHILE RIDING.**

Specifications

| FUNCTION | DISPLAY | RANGE |
|------------------|-----------|----------------------------|
| CURRENT SPEED | SPD | 4 - 299.9 KM/H or M/H |
| REVS PER MINUTE | RPM | 0 - 19999 RPM |
| RPM BAR GRAPH | Graphical | 0 - 12000 RPM |
| MAXIMUM SPEED | MS | 4 - 399.9 KM/H or M/H |
| DISTANCE | DST | 0.0 - 19999 KM or M |
| STOP WATCH | TT | 0 - 9999 hour 59 min |
| ODOMETER | ODO | 0.0 - 999999 |
| RIDE TIME | RT | 0 - 9999 hour 59 min |
| ACCUM. RIDE TIME | ART | 0 - 9999 hour 59 min |
| 12H or 24H CLOCK | 00:00:00 | 12:59:59 or 23:59:59 |
| LOW BATTERY | LO | About 1 Year Life |
| TIRE SIZE | | 0 - 3999 mm |
| ENGINE TEMP | | (-30C - 270C) (-22 - 518F) |
| Ambient Temp | | (-40C - 125C/257F) |

SPEED/DISTANCE SENSOR
 TEMPERATURE SENSORS
 RPM SENSOR
 PRODUCT DIMENSIONS

Non-contact Magnetic Speed Sensor
 Ambient and Engine Temp. Sensors
 Electrical Pulse Sensor
 106.93x59.46x23.7mm WxHxD
 (4.21x2.34x0.93" WxHxD)

SCREEN DIMENSIONS

78.75 x 28.6mm WXH
 (3.1 x 1.13" WxH)

Specifications

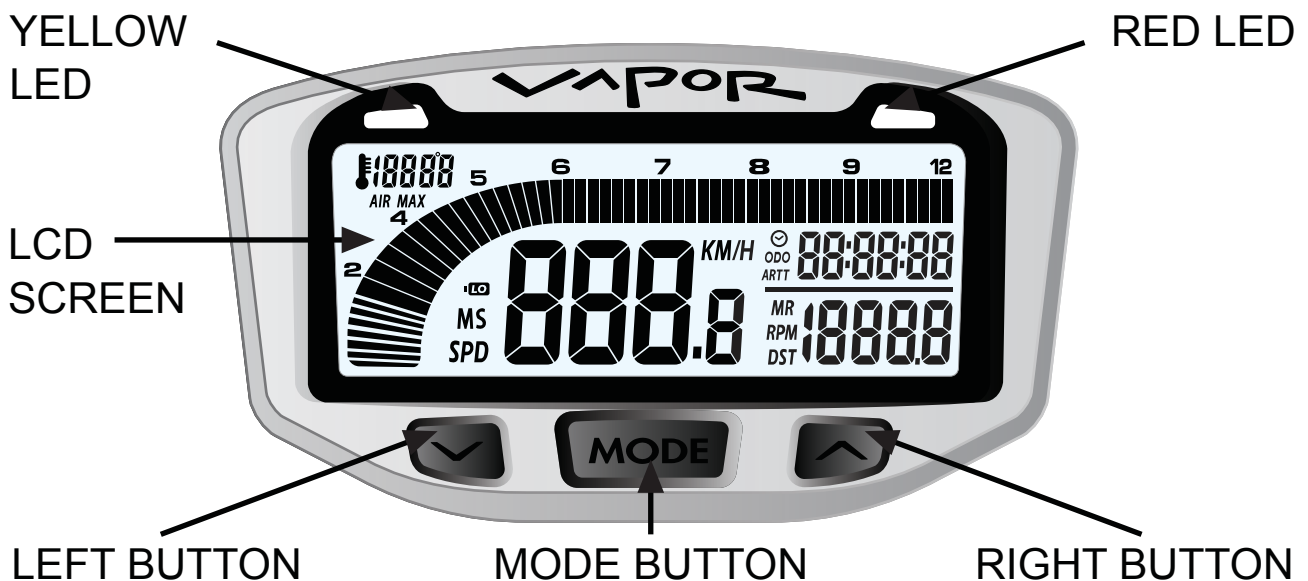
| UNITS | INCREMENTS | ACCURACY |
|---------------|-----------------|----------|
| KM/H or M/H | 0.1 KM/H or M/H | +/- 0.1% |
| KM/H or M/H | 10 RPM | +/- 0.1% |
| KM/H or M/H | Variable | +/- 0.1% |
| KM/H or M/H | 0.1 KM/H or M/H | +/- 0.1% |
| KM/H or M/H | 0.1 KM/H or M/H | +/- 0.1% |
| Hours:Minutes | 1 Second | +/- 0.1% |
| KM or M | 1 | +/- 0.1% |
| Hours:Minutes | 1 Minute | +/- 0.1% |
| Hours:Minutes | 1 Minute | +/- 0.1% |
| H:M:S | | +/- 0.1% |
| 2.5 Volts | | +/- 0.1% |

| | |
|-----------------------|--|
| PRODUCT WEIGHT | 3.9 oz. (110 grams) (0.24 lbs.) |
| WHEEL CIRCUMFERENCE | 0 to 3999 mm |
| OPERATION TEMPERATURE | 0°C to 60°C (32°F to 140°F) |
| STORAGE TEMPERATURE | -20°C to 80°C (-4°F to 176°F) |
| BATTERY | 3V CR2032 |
| BATTERY LIFE | About 1 Year |
| EXTERNAL POWER INPUT | 9.0-400 VAC/VDC (No polarity requirements.) |

Overview

Vapor Computer:

Vapor holds a large amount of information in a small space. There are three buttons for easy navigation, two LED's for alerts and warnings, and a brightly lit LCD panel for easy viewing.



Quickstart Commands:

- <MODE> = Switch between screens in Normal Mode.
- <LEFT> + <MODE> = Reset Trip Data: Maximum Speed, Distance, Ride Time, Stop Watch, Max Engine Temperature, and Max RPM.
- <RIGHT> = Toggle between features in Normal Mode screens.
- <MODE> FOR 3 SEC = Edit Trip Distance (DST) value.
 - <LEFT> or <RIGHT> = Increment or scroll distance value.
- <LEFT> <CENTER> + <RIGHT> = Enter Data Setting Mode.
 - <MODE> = Move to next data setting screen.
 - <LEFT> = Increment or scroll through current data setting.
 - <RIGHT> = Move to next digit in data setting mode.

Backlight:

Vapor is equipped with a backlight for easy viewing during night-time operation.

Using External 12V Power:

- Vapor will light up with all five LED's.
- Vapor will remain lit as long as it senses wheel movement. After 5 minutes of inactivity Vapor shuts off the backlight. Press any button, roll the wheels, or start the motor power and Vapor will light up again.
- Shift and Temperature LED's will be enabled.

Using Internal Battery Only:

- Vapor will only stay lit for 3 seconds.
- Vapor's backlight will light up with 10% power to conserve battery power.
- If the LO symbol is present, the backlight will not turn on. The LO symbol appears when battery voltage drops below 2.45V.
- If ambient temperature is cold (below -5°C) the backlight will not



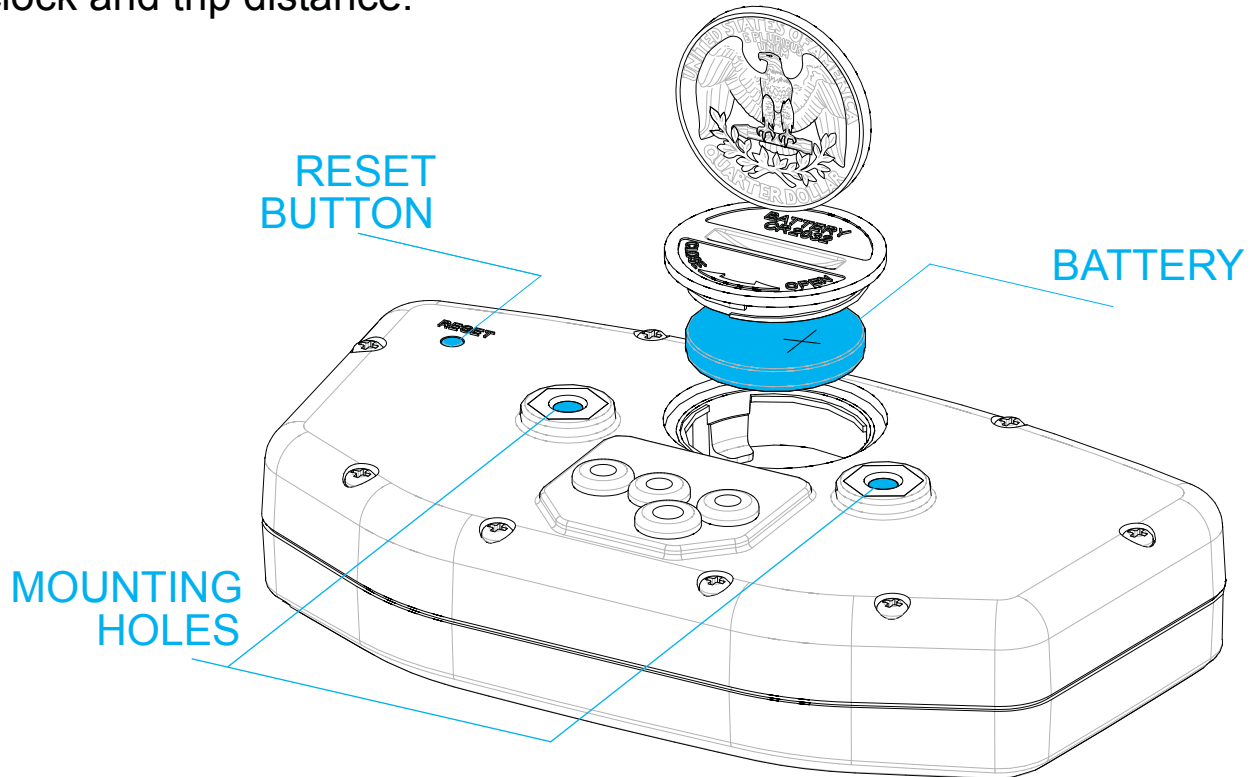
TO ACTIVATE BACKLIGHT MANUALLY, PRESS



If connected to 12V power, press any key to activate the backlight.

Reset Button:

Use of the Reset Button will erase data for the current ride including clock and trip distance.



Internal Battery:

Vapor has an internal 3.0V watch type battery (#CR2032). The computer can be run from this battery alone.

To change the battery, unscrew the battery cap on the back of the computer with a coin. Make sure the positive side of the battery is facing up when replaced.

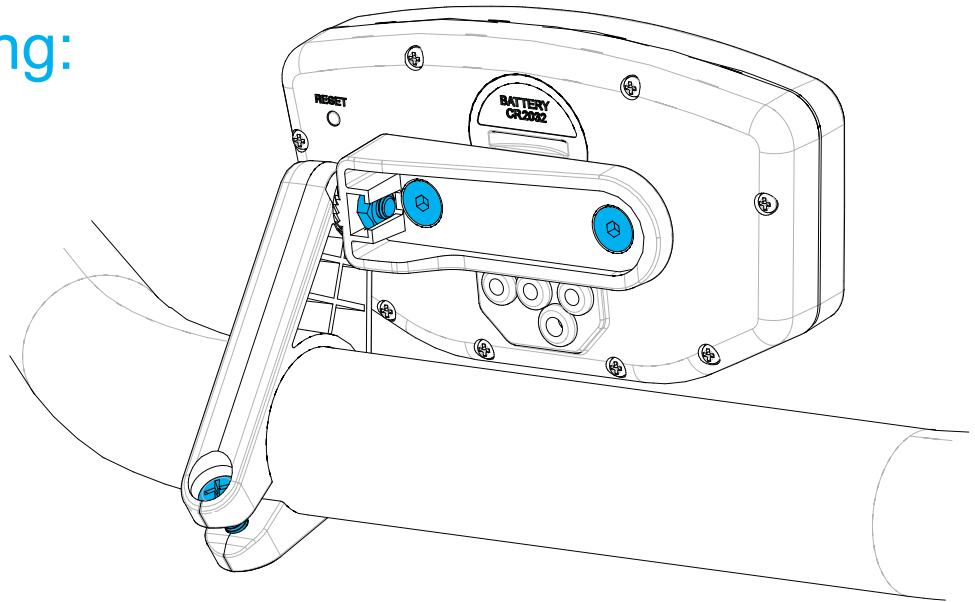
REPLACE WITH BATTERY MODEL NUMBER #CR2032

Installation

Bar Mounting:

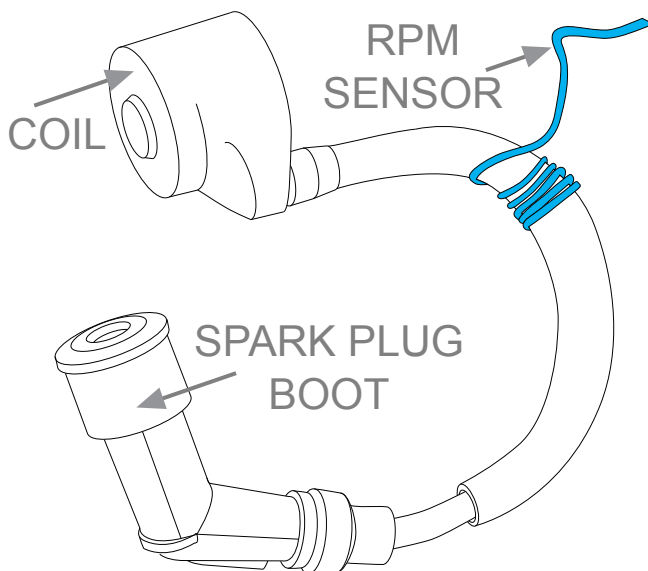
Place bolts as shown in picture.

Remember to use provided nuts when placing bolts.

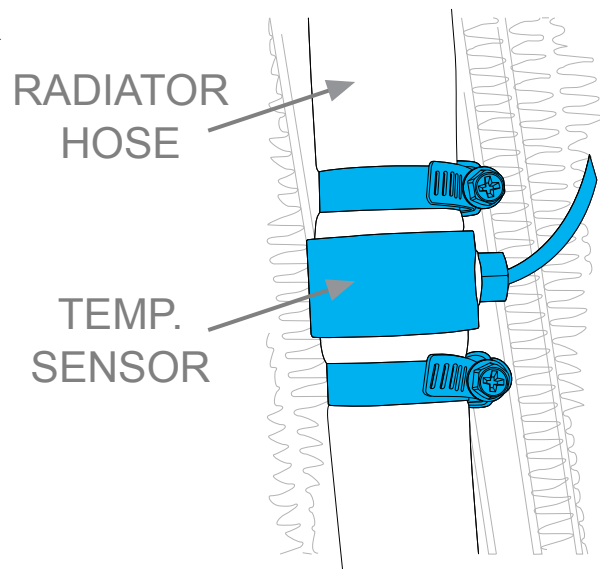


RPM and Temperature Sensors:

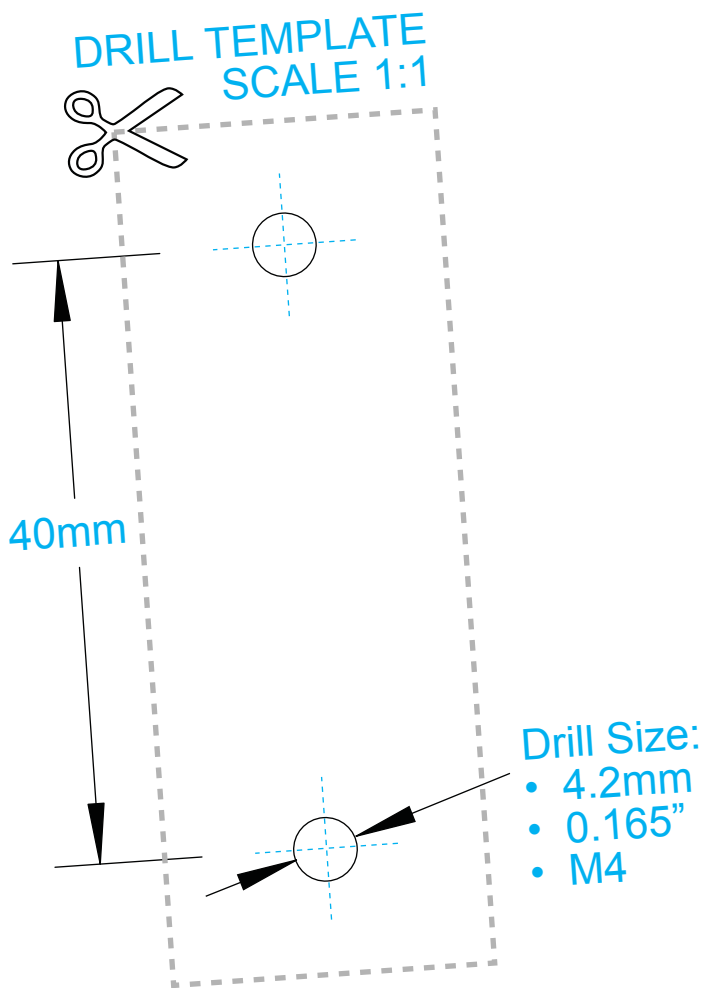
Please see model-specific instructions for mounting procedure. Motorcycle installation shown below.



RPM Pulse Sensor wrapped around spark plug wire



Temperature Sensor in-line in radiator hose

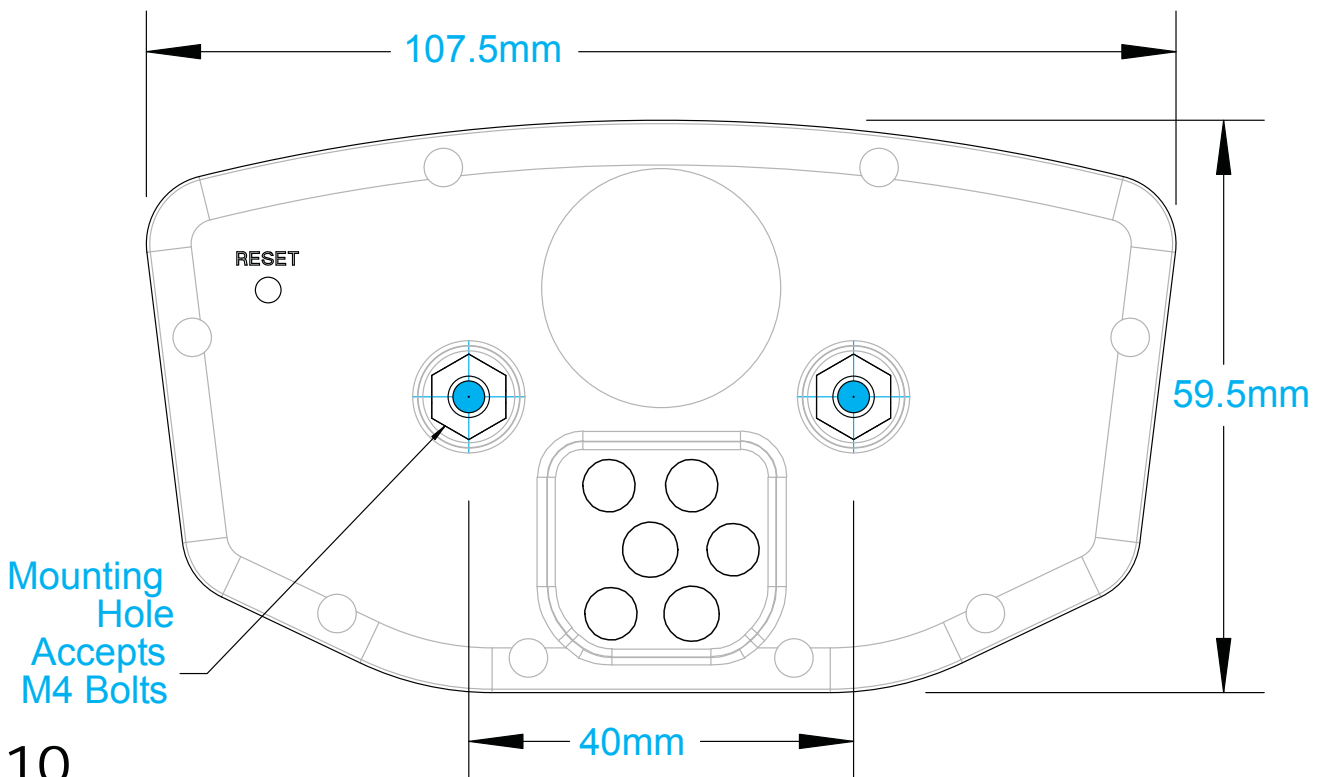


Flat/Surface Mount:

There are two screw holes on the back of Vapor. Use the included M4 bolts to mount to any flat surface (e.g. stock odometer mounting bracket or body panel).

Make sure that the cables will not be chafed or damaged in their mounting location.

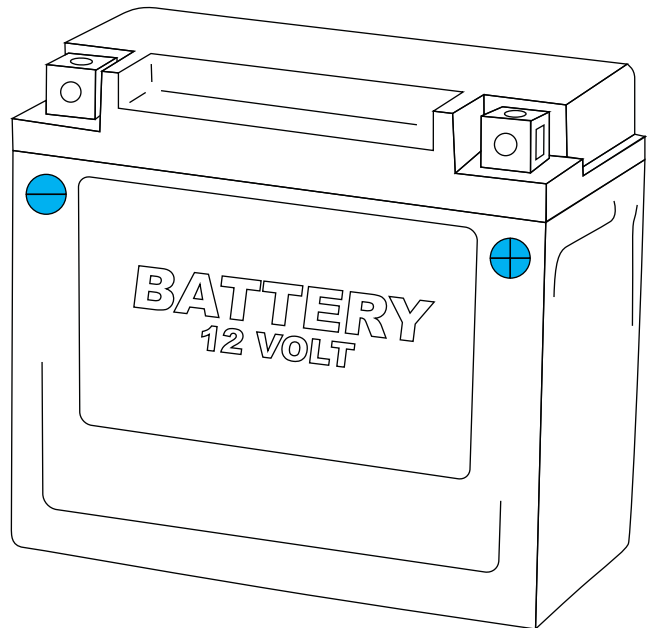
If other than provided screws are used, make sure they are not too long for mounting holes. Screws that are too long will damage internal components of Vapor.



12 Volt Systems:

If possible, install Vapor to a 12 volt system:

- The backlight will be 10 times brighter.
- Vapor will enter sleep mode after 20 minutes instead of 5.
- The shift and temperature indicator LED's will be enabled.



OPTION 1) BATTERY WIRED:

Connect the power cables directly to the vehicle's 12 volt battery.

A 1 Amp fuse (not provided) should be used between the power cable and positive battery terminal when connecting directly to a battery.

OPTION 2) SYSTEM TAP:

As an alternative to running wires all the way to the battery, it is possible to tap into the electrical system. When tapping into the electrical system, connect to a circuit protected by fuse. It is best to connect so power is not interrupted by key switch.

Notes:

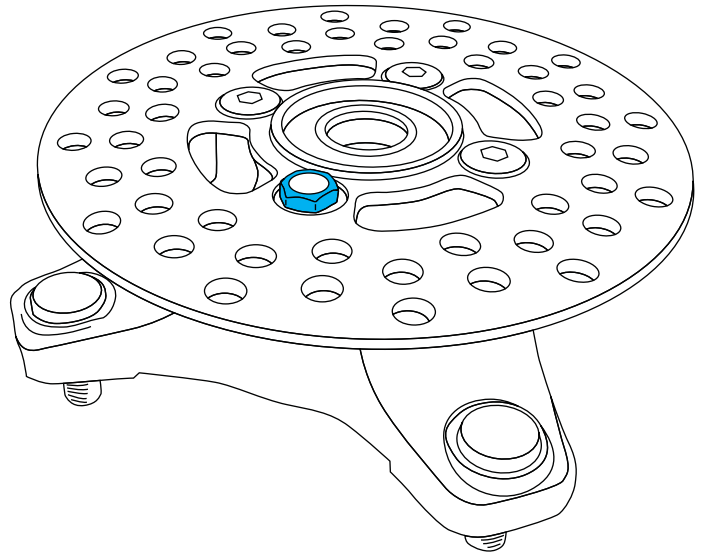
- Vapor is polarity independent. Either lead can go to the positive or negative post on the battery.
- Vapor will not drain your battery.
- The "LO" low battery indicator will activate if battery voltage drops below 2.45V.

ATV Sensor/Magnet Installation:

Vapor needs two things to be able to collect distance data:

1. A magnet placed on the spinning part of the wheel.
2. The sensor, placed on the non-moving part of the wheel.

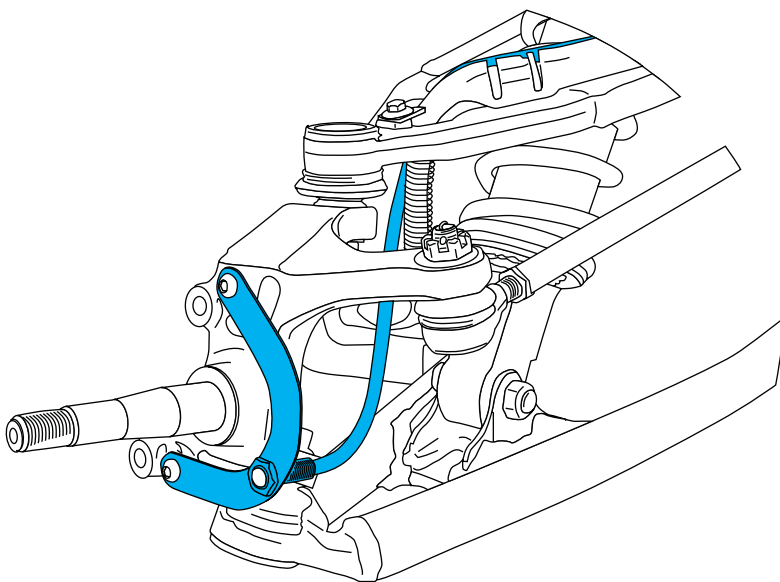
The magnet spins around tripping the sensor switch each time--data collected lets Vapor calculate distance and time.



Magnetic Bolt Installation
ATV Rotor

The magnet gets installed on the brake rotor because it spins with the wheel. Typically the provided magnetic bolt can simply replace a stock rotor bolt (see above picture). If that doesn't work, there is

a spare magnet that can be glued in a hole on the brake rotor. (JB Weld or a similar slow-cure epoxy works well.)



C-Bracket Installation-ATV Left Axle

After the magnet is in, the sensor is placed on a non-spinning part the wheel.

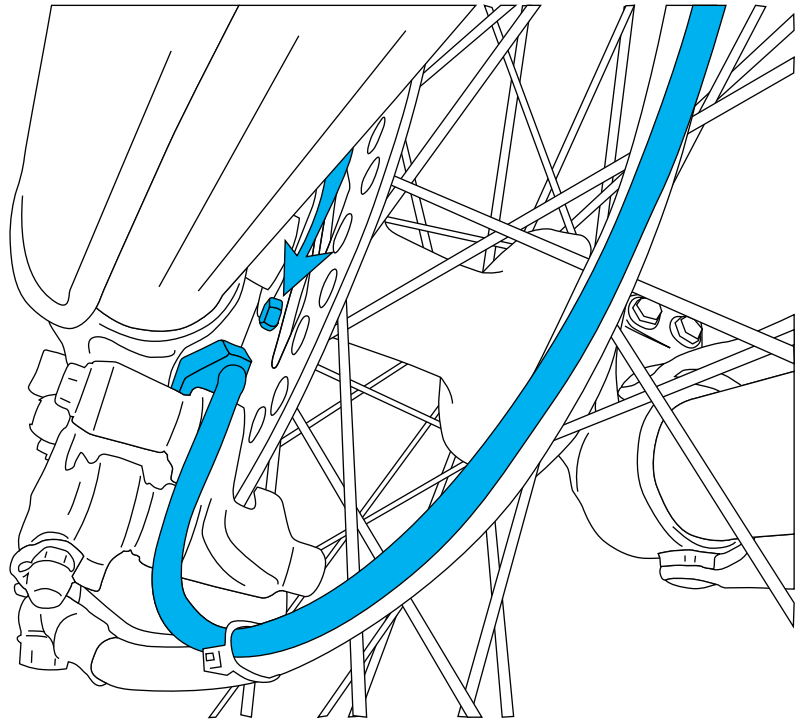
The sensor typically is placed on either the provided C-bracket or the ATV metal rotor shield.

Motorcycle Sensor/Magnet Installation:

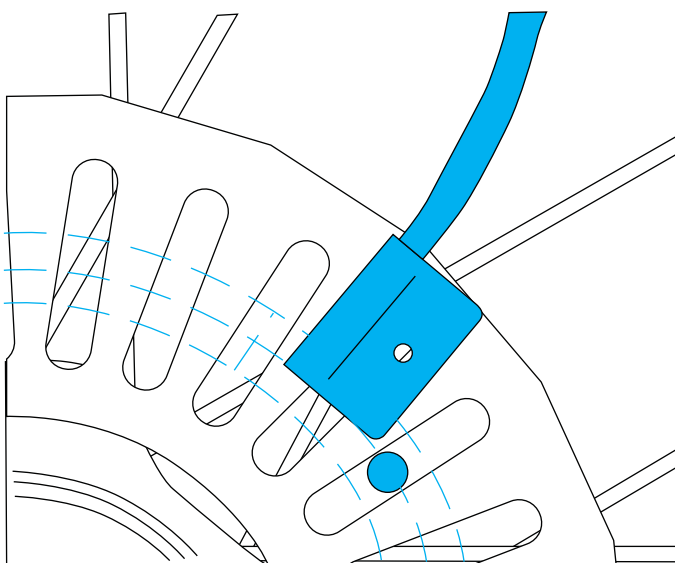
Motorcycles, like ATV's, need a magnet placed on the spinning part of the wheel and the sensor installed to a non-spinning part.

The magnet typically gets bolted or glued to the brake rotor.

The sensor wire should come from the back of the computer, be cable-tied to the brake line as it travels down the front forks, then attached to the brake caliper.



Magnet About to Pass Under Sensor



Optimum Magnet Rotation Path

Vapor can tell how far and fast it's traveled by keeping track of how many times the magnet passes under the sensor switch.

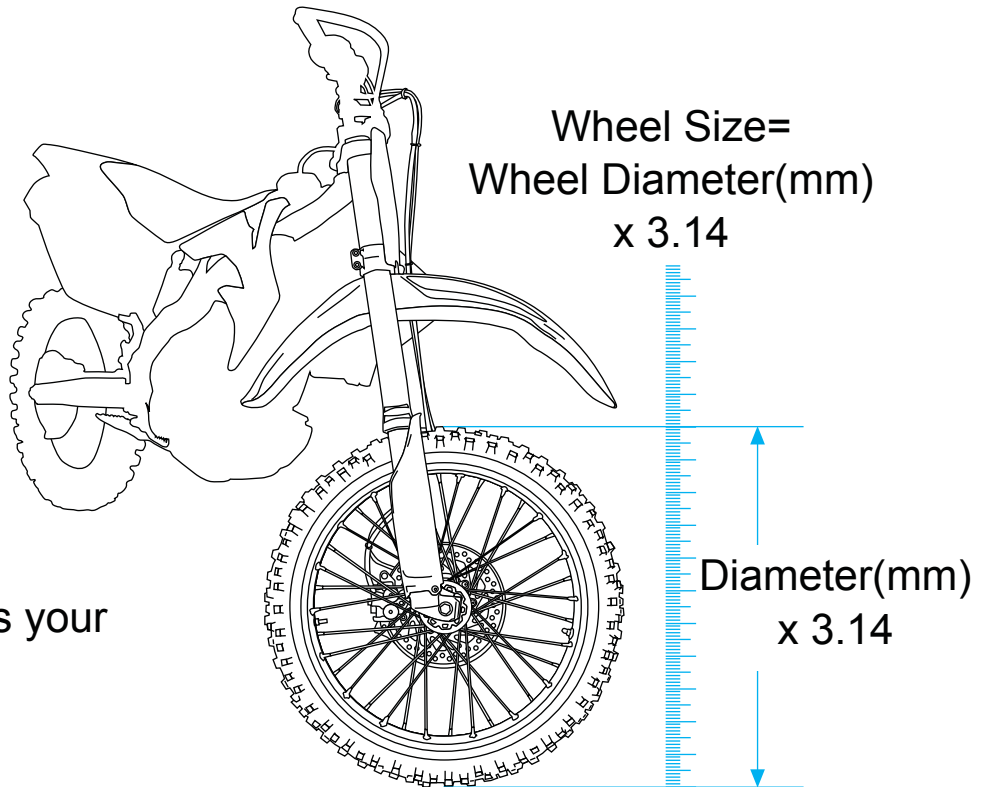
Many Motorcycles and ATV's have special installation procedures. Refer to the provided installation insert for specific instructions for your machine.

Overview:

You will use the wheel size number when setting up the computer for your machine. Use Method 1, 2 or 3.

Method 1) Easy Ruler Method:

Find the circumference of front wheel by measuring its diameter in millimeters. Multiply the Wheel Diameter by 3.14. The result is your wheel size.



Method 2) Rolling Measurements:

On a flat surface, mark the tire sidewall and the ground with a marking pen. Roll the wheel until the mark on the tire completes one revolution and is back on the ground. Mark the ground at this location. Measure the distance between the marks on the ground in mm.

(multiply inches by 25.4 to convert to mm). Use this number for your wheel size. For accuracy, the rider's weight should be on the bike when making this measurement.

Method 3) Distance Measurements:

For the most accurate measurement, use wheel size measurement from above or set the wheel size to 2110mm (motorcycle) or 1675 (ATV) and follow this procedure:

1. Find a length of road where the distance is known.
2. Ride the distance and note the distance the computer reads (for example, the road is known to be 5 miles and the computer shows 4.95 miles.)
3. Use the numbers to solve for X in the following equation:

$$\frac{2110}{X} = \frac{4.95}{5.00} \quad \text{or} \quad \frac{(\text{current wheel size})}{(\text{new wheel size})} = \frac{(\text{current miles})}{(\text{actual miles})}$$

$$4.95X = 2110 * 5.00$$

$$4.95X = 10550$$

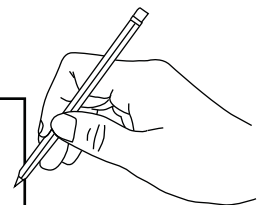
$$X = \frac{10550}{4.95}$$

$$X = 2131$$

4. Enter number found from the above method in your computer.

My Wheel
Size:

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|



Data Setting Mode



Overview:

Data Setting Mode is very important for Vapor to operate correctly.

Available Settings:

- Kilometers or Miles per Hour
- Wheel Size in Millimeters
- 24 hour or 12 hour Clock Format
- Time of Day
- Pulses per Revolution (PPR)
- Temperature Unit of Measure, °F or °C
- High Temperature Warning Point
- Over Temperature Danger Point
- RPM Shift Indicator
- Over Shift Indicator Warning

Hold all three buttons down for three seconds to enter Data Setting Mode.

After a setting is confirmed, Vapor will move on to the next setting in order.

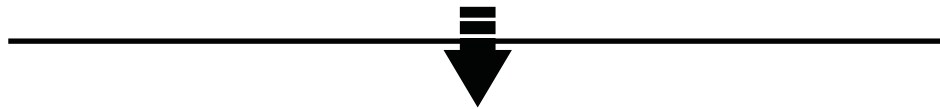
If no button is pressed for 15 seconds, Vapor will return to Normal Mode.

Enter Data Setting Mode:

TO ENTER DATA SETTING MODE, HOLD ALL THREE BUTTONS FOR 3 SEC



Release buttons to continue.



Program Kilometers or Miles Per Hour:



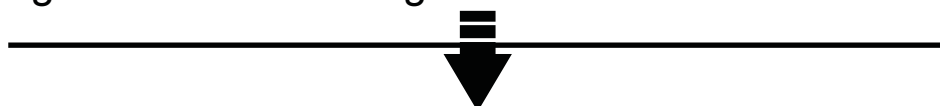
TO CYCLE BETWEEN M/H AND KM/H, PRESS



TO CONFIRM, PRESS



Vapor will go to the next setting.



Program Wheel Size:

Vapor needs to know wheel size in order to measure Distance and Speed. Please take the time to accurately measure wheel size for smooth operation. See “Measuring Wheel Size” section for more information. This setting is critical and required.



MODIFY FLASHING DIGIT BY PRESSING



CHANGE TO NEXT DIGIT BY PRESSING



TO CONFIRM, PRESS

MODE

Vapor will go to the next setting.



Program 12 or 24 Hour Clock Format:

Vapor defaults to 12H format.



TO CYCLE BETWEEN 12H AND 24H, PRESS



TO CONFIRM, PRESS



Vapor will go to the next setting.



Program Time of Day:

MODIFY FLASHING DIGIT BY PRESSING



CHANGE TO NEXT DIGIT BY PRESSING



TO CONFIRM, PRESS



Vapor will go on to the next setting.





Program Pulses per Revolution (PPR) Step 1:

Setting the correct PPR is necessary for Vapor to calculate RPM. Most engines run at one Pulse Per Revolution (1 PPR). Some engines may pulse once per two revolutions (.5 PPR) or twice per one revolution (2 PPR). Select from 0.5, 1.0 or 2.0 PPR. 0.5 doubles reading, 2 cuts reading in half.

USE AS DEFAULTS: 4 Strokes: 1 PPR
2 Strokes: 1 PPR



MODIFY FLASHING DIGIT BY PRESSING



CHANGE TO NEXT DIGIT BY PRESSING



TO CONFIRM, PRESS

MODE

Vapor will go to the next setting.





Program Pulses per Revolution (PPR) Step 2:

For most vehicles this step can be ignored. Some vehicles will change the PPR after a certain RPM. For these vehicles, set the RPM at the point the PPR changes.



MODIFY FLASHING DIGIT BY PRESSING



CHANGE TO NEXT DIGIT BY PRESSING



TO CONFIRM, PRESS

MODE

Vapor will go to the next setting.





Program Pulses per Revolution (PPR) Step 3:

This step is only necessary if “Step 2” has been set to a number other than “0”. This number is the new PPR after the RPM set on “Step 2”. Consult your vehicle owner’s manual for RPM and PPR settings.

Vapor will flash the default number “1.0”. Typically, a vehicle that changes PPR ratio at higher RPM’s changes from 0.5 to 1.0. Consult your bike’s User Manual or the manufacturer for details.



MODIFY FLASHING DIGIT BY PRESSING



CHANGE TO NEXT DIGIT BY PRESSING



TO CONFIRM, PRESS



Vapor will go to the next setting.





Program Temperature Unit of Measure:

Choose between °C or °F.



MODIFY FLASHING DIGIT BY PRESSING



CHANGE TO NEXT DIGIT BY PRESSING



TO CONFIRM, PRESS



Vapor will go to the next setting.





Program High Temp Warning Point:

Vapor defaults to 0 which disables the warning light feature. When the engine warning point temperature sensor is set. The left LED will turn on as a warning.



MODIFY FLASHING DIGIT BY PRESSING



CHANGE TO NEXT DIGIT BY PRESSING



TO CONFIRM, PRESS



Vapor will go to the next setting.





Program Over Temp Danger Point:

Vapor defaults to 0 which disables the warning light feature. When the engine danger point temperature sensor is set. The right LED will turn on as a warning.



MODIFY FLASHING DIGIT BY PRESSING



CHANGE TO NEXT DIGIT BY PRESSING



TO CONFIRM, PRESS



Vapor will go to the next setting.





Program RPM Shift Indicator:

Vapor's shift indicator defaults to 0000 RPM. Which disables this warning light feature. When engine RPM is set the left LED will turn on as a warning.



MODIFY FLASHING DIGIT BY PRESSING



CHANGE TO NEXT DIGIT BY PRESSING



TO CONFIRM, PRESS



Vapor will go to the next setting.





Program Over Shift Indicator Warning:

Vapor's over shift warning indicator defaults to 0000 RPM. Which disables this warning light feature. When engine RPM is set the right LED will turn on as a warning.



MODIFY FLASHING DIGIT BY PRESSING



CHANGE TO NEXT DIGIT BY PRESSING



TO CONFIRM, PRESS



Vapor will return to Normal Mode.



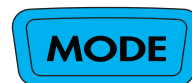
Normal Mode Screens

Switch between the 3 Normal Mode Screens:

All of the information that Vapor provides is on one of these 3 screens.

When riding, the user has the choice of staying on Screen 1 or Screen 2. Screen 3 will default back to Screen 1 after 5 seconds.

TO SWITCH BETWEEN SCREENS, PRESS



Screen 1:

Screen 1 Displays:

- Speed (SPD) • Distance (DST)
- Time of Day • Ambient Air Temperature • RPM Bar Graph




Screen 2:

Screen 2 Displays:

- Speed (SPD) • Revolutions per Minute (RPM)
- Stop Watch (TT) • Ride Time (RT)
- Engine Temperature* • RPM Bar Graph




TOGGLE BETWEEN
STOP WATCH AND
Ride TIME BY
PRESSING 

Screen 3:

Screen 3 Displays:

- Maximum Speed (MS) • Maximum RPM (MR)
- Accumulated Ride Time (ART) • Odometer (ODO)
- Maximum Temperature (MAX)*



TOGGLE BETWEEN
ACCUMULATED
RIDE TIME AND
ODOMETER BY
PRESSING 

*Note: Engine Temperature readings require optional sensor.

Vapor Features

Overview:

Vapor is in Normal Mode during regular use.

Available Features:

- Sleep Mode
- RPM Bar Graph
- Stop Watch (TT)
- Switch between the 3 Normal Mode Screens
- Reset single-ride data to zero
- Shift Indicators
- Ambient and Engine Temperature

Sleep Mode:

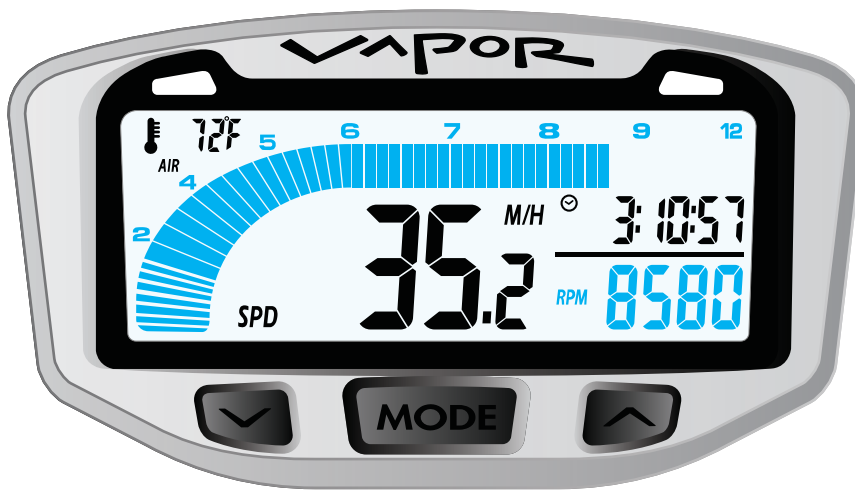
If Vapor receives no data for 20 minutes (either wheel data or a button pressed), it will enter sleep mode. It will only display the clock while in Sleep Mode. It will exit Sleep Mode when it receives sensor data or a button is pressed.



Tachometer:

Description:

The tachometer provides both a graphical and numeric display of engine RPM. The LCD display is designed to display a segmented bar graph for information at a glance as well as a numeric display for more accurate readings.



Bar Graph:

The RPM bar graph will progressively light up as RPM increases. The resolution of each segment varies in order to emphasize the most useful and important ranges of RPM.

Resolution of each segment on RPM bar graph:

- 0-2000 rpm: 250 rpm/seg
- 2000-4000 rpm: 500 rpm/seg
- 4000-6000 rpm: 200 rpm/seg
- 6000-9000 rpm: 125 rpm/seg
- 9000-12,000 rpm: 375 rpm/seg

Display:

Screen 1: RPM Bar Graph

Screen 2: RPM Bar Graph, Numeric RPM

Screen 3: Maximum RPM

Speedometer:

Description:

The speedometer shows the current vehicle speed. Vapor also shows Maximum Speed, the highest speed achieved since the last reset.

Speed:

Speed is displayed from 0 to 399.9 M/H or KM/H in the center of Screens 1 and 2. The SPD icon and KM/H or M/H will also appear next to the speed reading.



Maximum Speed:

Maximum speed is displayed on Screen 3 in the middle next to the MS icon. Maximum speed is reset by a trip-data reset <LEFT> + <MODE>.

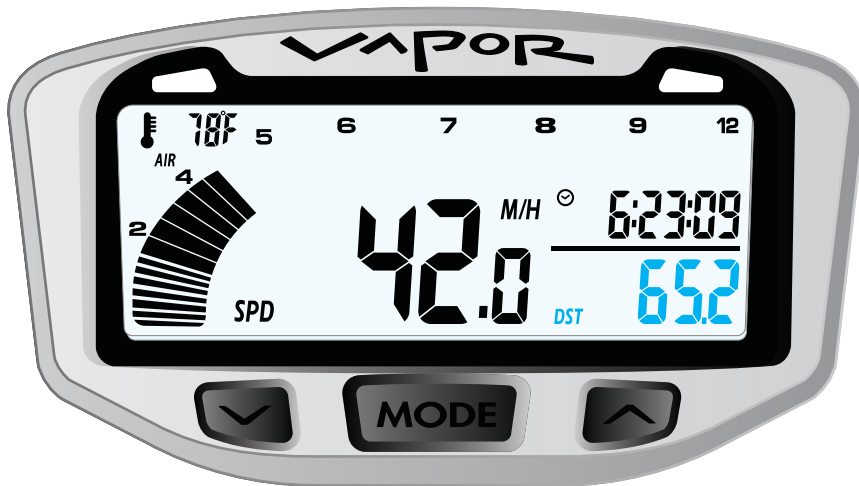


Adjustable Trip Distance Meter:

Description: The Trip Meter shows how much distance has been travelled since the last reset.

Trip Distance: Trip Distance is displayed from 0 to 9999.9 miles or kilometers in the lower right of Screen 1, next to the DST icon. Trip Distance is reset by a trip-data reset <LEFT> + <MODE>.

Adjustable Trip Distance: Trip Distance is adjustable in 0.1 KM or M increments. Hold <MODE> for 3 seconds on any Normal Mode screen, then scroll Trip Distance up with the <LEFT> button or down with the <RIGHT> button.



ENTER DISTANCE EDIT MODE FROM ANY SCREEN BY HOLDING <MODE> FOR 3 SECONDS



INCREMENT OR SCROLL DISTANCE VALUE BY PRESSING <LEFT> OR <RIGHT>



Hold the button down and Vapor will scroll faster.

Odometer:

Description:

The Odometer will provide the user with a numeric display of total accumulated distance in miles or kilometers. The odometer is not resettable.



Display:

The highest Odometer reading Vapor can display is 999,999 miles or kilometers.

The Odometer is shown only on Screen 3 and alternates with Accumulated Ride Time (ART) by pressing <RIGHT>.

Accumulated Ride Time

Description:

Accumulated Ride Time (ART) tracks the total amount of time the engine has been turned on. Accumulated Ride Time is not resettable.



Display:

The highest Accumulated Ride Time Vapor can display is 9999:59 hours (when the maximum value is reached, Vapor will not roll the number back to 0).

Accumulated Ride Time (ART) is shown only on Screen 3 and alternates with the Odometer (ODO) by pressing <RIGHT>.

Note:

Accumulated Ride Time increments whenever RPM data is present (the vehicle is turned on.)

Clock, Stop Watch, and Ride Time:

Time-of-Day Clock: The Time-of-Day clock is displayed in the upper-right corner of Screen 1 next to the clock icon and during Sleep Mode. The clock is displayed in either 12H or 24H format.

Ride Time: Time (RT) is displayed in the upper right corner of screen 2. Ride Time shows how long the engine has been running since the last reset. Ride Time is reset by a trip-data reset <LEFT> + <MODE>.

Toggle between Ride Time and Stop Watch on Screen 2 by pressing <RIGHT>.



Stop Watch: The Stop Watch (TT) functions like any simple stop watch. Press <LEFT> to start or stop the Stop Watch.

Toggle between Stop Watch and Ride Time on Screen 2 by pressing <RIGHT>

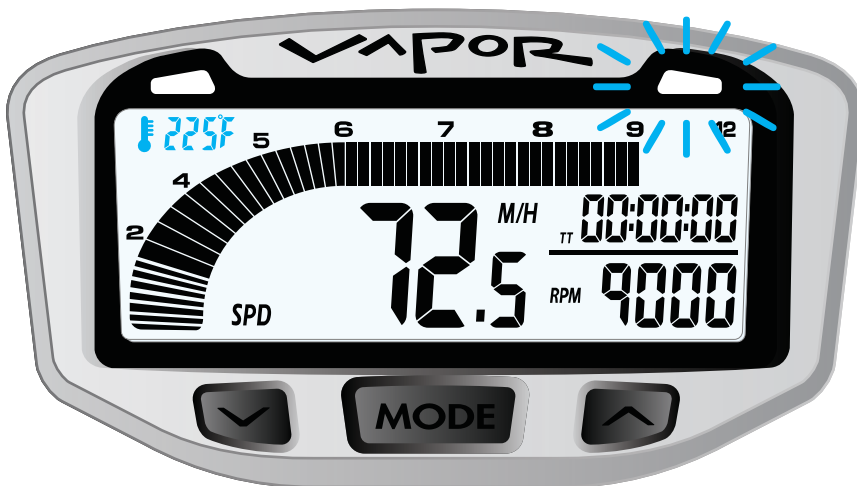
Ambient Air Temperature/ Engine Temperature:

Vapor will display ambient or air temperature on Screen 1. If an optional engine temperature sensor has been installed on the machine, Vapor will display engine temperature on Screen 2. Screen 3 will display the maximum engine temperature received by the sensor since the last reset (see Normal Mode:Reset Single-Ride Data for details).

Temperature measurements use user defined values to advise when the engine is getting too hot. Tell Vapor what is too hot in Data Setting Mode (see Data Setting Mode:Temperature Settings for more detail).

When Temperature reaches Vapor's High Temp Setting, the left LED will light steady on, signaling the bike is starting to get too hot.

When Temperature reaches Vapor's Danger Temp Setting, the right LED will light steady on, signaling the bike is dangerously hot.



Vapor says,
“DANGER -
TOO HOT!”

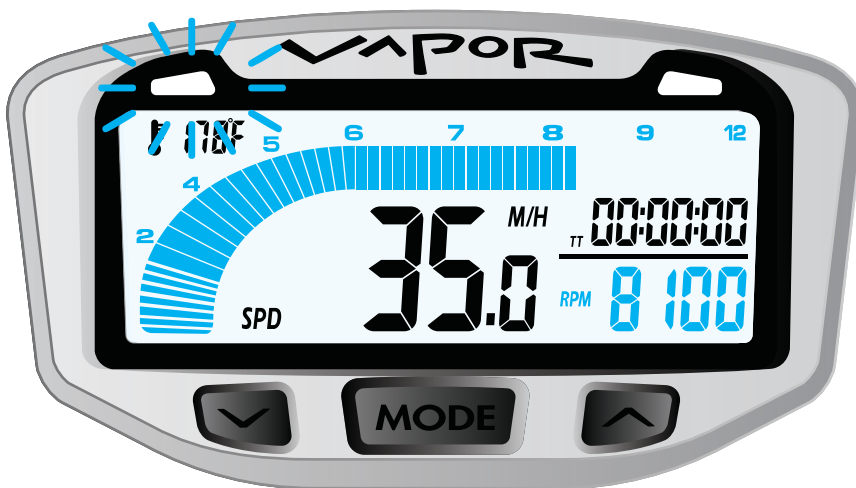
Vapor must be connected to external power or LED's will not function.
NOTE: Engine temperature data will override shift points.

Shift Indicator Lights:

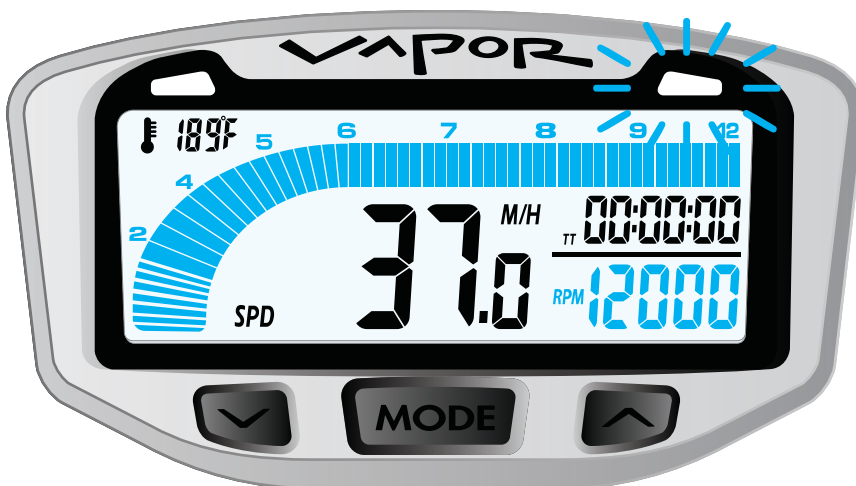
The Shift Indicator Lights use user defined values to advise when it's time to shift. Tell Vapor when to shift in Data Setting Mode (see Data Setting Mode:Shift Indicator Settings for more detail).

When RPM reaches Vapor's RPM Shift Indicator Warning Value, the left LED will flash, signaling it's time to shift. (Default value is 8,000 RPM).

When RPM reaches Vapor's RPM Over Shift Indicator Danger Value, the right LED will flash, signaling the bike is revving too high. (Default value is 12,000 RPM).



Vapor says,
"Time to Shift!"



Vapor says,
"DANGER -
Shift NOW!"

NOTE: Engine temperature data will override shift points.

Reset Single-Ride Data to Zero:

Resets temporary data:

- Maximum Speed (MS) • Distance (DST)
- Stop Watch (TT) • Maximum Temperature (MAX)
- Maximum RPM (MR)

This data should be reset to zero at the completion of a ride so that new information can be logged on the next ride.

Notes:

- The reset can be done from any screen.
- Accumulated Ride Time (ART) and Odometer (ODO) cannot be reset and are intended to maintain cumulative information.



TO RESET SINGLE-RIDE DATA, PRESS



If any wires become unplugged from Vapor, do a data reset after everything is properly re-connected. Alternatively, push the red reset button on the back of Vapor.

Troubleshooting F.A.Q.



Frequently Asked Questions:

Why does nothing work?

The internal battery may be dead, or Vapor is not hooked up to vehicle power properly. Review installation procedure. Try the reset button on the back of Vapor. Don't forget to write down your wheel size and other settings beforehand.

Why isn't the RPM Graph working?

The engine sensor may be installed incorrectly. Review installation procedure.

Everything is working, but the (K)MPH reading is way off!

The wheel sensor/magnet may be installed incorrectly. Double check to make sure everything is set up right.

The wheel size setting may be incorrect. Please review wheel size measurement instructions in this manual.

Vapor is not displaying information correctly!

If the wires on the back of Vapor become damaged, incorrect readings may be displayed. Be careful to avoid twisting, crimping, kinking or otherwise abusing the wires.

The screen melted!

Did gasoline, degreasers, or other chemical cleaners come in contact with Vapor's screen? Some chemicals can easily damage Vapor.

Why is the LCD Display slow, or even worse, black?!

Vapor may have been exposed to too much direct sunlight while not riding or temperatures below 0°C. Try the reset button and get Vapor back to a normal temperature.

The Backlight won't stay lit!!!

Vapor needs to be connected to vehicle's 12 volt system in order for the backlight to be continuous on. Review installation procedure.

Vapor resets when bike starts even when connected to power.

To replace the battery, use a coin to unscrew the round panel on the back of Vapor. Remove the old battery and install the new one. Make sure the positive pole is facing up. Replace with common watch battery CR2032.

Why aren't the LED's working?

Vapor needs to be connected to vehicle's 12 volt system in order for the LED's to function.

The temperature LED's require an optional engine temperature sensor to be installed correctly and must be set in Data Setting Mode correctly. They default to 0, in effect turned off.

The shift points must be set correctly in Data Setting Mode to function correctly. They default to 0, in effect turned off.

**REMEMBER TO PAY ATTENTION
TO THE TRAIL WHILE RIDING.**

Glossary of Terms



ACCUMULATED RIDE TIME (ART)

The long-term total amount of time spent riding (all ride times added together). Cannot be reset.

BACKLIGHT

The light that brightens up Vapors display. When connected to vehicle's 12 volt system the backlight can be activated by pressing any button, will be 5 times brighter, and will stay on continuously.

SPEED (SPD)

The current speed the vehicle is traveling.

DATA SETTING MODE

The place to set Vapors' settings. Includes distance units, wheel size, clock format, time, PPR, temperature units, high temp setting, over temp setting, RPM shift indicator and RPM over shift indicator.

DISTANCE (DST)

The amount of trail covered since the last reset.

HIGH/OVER TEMP INDICATORS

The LED's will blink when the bike gets too hot and again when it gets dangerously hot. Set custom temperatures in Data Setting Mode.

MAXIMUM SPEED (MS)

The max speed achieved since the last reset.

NORMAL MODE

Vapor's standard mode.

REVOLUTIONS PER MINUTE (RPM)

The number of revolutions the engine makes in a minute. Revolutions Per Minute is commonly abbreviated to RPM.

RPM BAR GRAPH

The graphical display on Vapor's screen that represents engine revolutions.

RPM SHIFT INDICATORS

The LED's will light up when it's time to shift and again when RPM's hit the danger point. Set custom RPM limits in Data Setting Mode.

SENSOR

Vapors' various sensors must be installed correctly or nothing will work! One works with the magnet to let Vapor collect its wheel data, another gets connected to the engine to measure PPR, and a third sensor will measure the temperature.

SLEEP MODE

If Vapor doesn't receive any sensory information it will go into Sleep Mode and only display the clock. Press any button to exit.

STOP WATCH (TT)

A short term, regular stop watch.

WHEEL SIZE

Very important. Used to determine speed and distance. Refer to the Wheel Measurement section for an accurate measurement.