

VECTOR



USER'S MANUAL

ALL-PURPOSE SPEEDOMETER

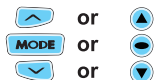
SPEED | DISTANCE | TEMP | CLOCK | REMOTE

A

TRAILTECH

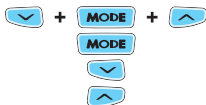
COMPUTER

Quick-start



Normal Mode:

- = Activate backlight manually
- = Switch between screens in normal mode
- = Start or stop the stop watch



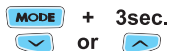
Data Setting Mode:

- = Enter data setting mode
- = Switch between screens in data setting mode
- = Scroll through current data setting
- = Move to next digit of current data setting



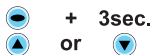
Data Reset:

- = Reset single-ride data



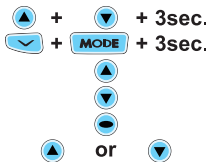
Adjustable Trip Distance Edit:

- = Enter/exit adjustable trip distance edit mode
- = Scroll distance value



Rally Mode:

- = Enter/exit rally mode
- = Scroll distance value



Lap Timer Mode:

- = Enter/exit lap timer mode
- = Clear lap timer data
- = Start/stop lap timer
- = Signal new lap
- = Enter/exit lap data review mode
- = Scroll through lap information

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 Vector, 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 Vector, follow basic precautions, including the following:

- Read all instructions before using Vector.
- When installing radiator hose insert temperature sensors, make sure the sensor will fit BEFORE cutting the radiator hose.
- Use Vector only for its intended function.
- To reduce the risk of injury, do not disassemble Vector or its accessories.
- Vector 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 speed sensor and magnet periodically.
- Do not bend, twist, kink or otherwise abuse the sensor cables. A damaged cable may produce incorrect readings.
- When installing Vector, turn the vehicle ignition off: the wires carry power from the vehicles ignition system.
- Avoid contact with gasoline, degreasers or other chemical cleaners as they may damage Vector.

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

Specifications

FUNCTION	DISPLAY	RANGE	
CURRENT SPEED	SPD	4 - 399.9 KM/H or M/H	
AVERAGE SPEED	AS	4 - 399.9 KM/H or M/H	
MAXIMUM SPEED	MS	4 - 399.9 KM/H or M/H	
DISTANCE	DST	0.00 - 9999.99 KM or M	
STOP WATCH	TT	0 - 9999 hour 59 min	
ODOMETER	ODO	0.0 - 999999 KM or M	
RIDE TIME	RT	0 - 999 hour 59 min	
ACCUM. RIDE TIME	ART	0 - 9999 hour 59 min	
TEMPERATURE	°C or °F	0 - 399°	
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	
OIL REMINDER		0 -9999 KM or M	
MAINTENANCE		0 -9999 KM or M	
LAP TIMER		0-18 Hours/Lap, 29 Laps	

SPEED/DISTANCE SENSOR TEMPERATURE SENSORS

Non-contact Magnetic Speed Sensor
Ambient and Engine Temp. Sensors

PRODUCT DIMENSIONS

106.93x59.46x23.7mm WxHxD
(4.21x2.34x0.93" WxHxD)

SCREEN DIMENSIONS

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

UNITS	INCREMENTS	ACCURACY
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%
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 KM or M	+/- 0.1%
Hours:Minutes	1 Minute	+/- 0.1%
Hours:Minutes	1 Minute	+/- 0.1%
°C or °F	1 Degree	+/- 0.1%
H:M:S		+/- 0.1%
2.5 Volts		
		+/- 0.1%
KM or M	1 KM or M	+/- 0.1%
KM or M	1 KM or M	+/- 0.1%
KM or M	1 Second	

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 (About 1 Year life)

EXTERNAL POWER INPUT

9.0-400 VAC/VDC

(No polarity requirements.)

Overview

Vector Computer:

Main Computer:

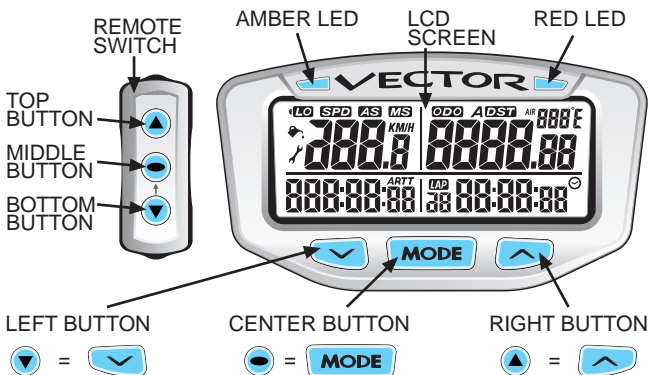
- The Vector computer has 3 buttons, 2 LED's and an LCD screen.

LED's:

- Amber LED: Lights up for temperature warning alert and indicates fast laps in lap timer mode.
- Red LED: Lights up for over-temperature alert and indicates slow laps in lap timer mode.

Remote Switch:

- The remote switch (optional, sold separately) is required to access lap timer and rally mode extended feature sets.
- If not in lap timer or rally mode, the remote switch buttons function as duplicates of the buttons on the main computer.



Backlight:

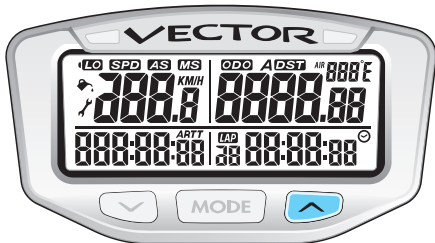
Vector is equipped with a backlight for easy viewing during night-time operation.

Using External 12V Power:

- Vector will light up with all five LED's.
- Vector will remain lit as long as it senses wheel movement. After 20 minutes of inactivity Vector shuts off the backlight. Press any button, roll the wheels, or start the motor power and Vector will light up again.
- Shift and temperature LED's will be enabled.

Using Internal Battery Only:

- Vector will only stay lit for 3 seconds.
- Vector's backlight will light up with 10% power to conserve the internal battery's 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 turn on.

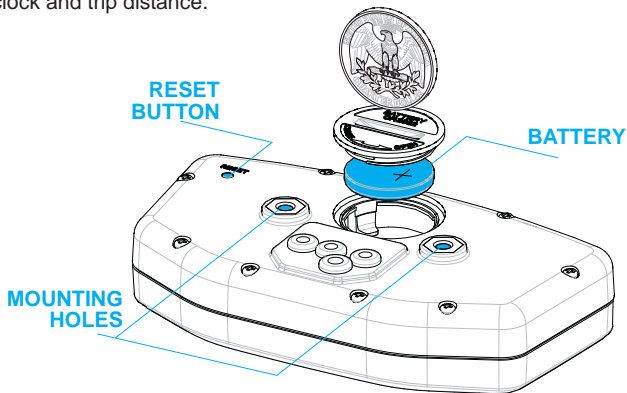


TO ACTIVATE BACKLIGHT MANUALLY, PRESS



Reset Button:

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



Internal Battery:

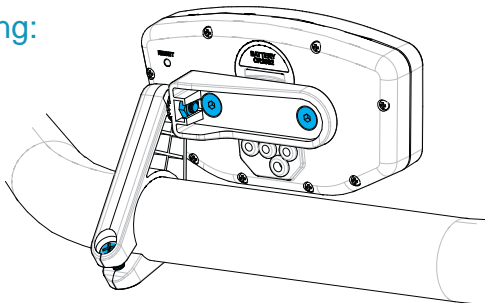
- Vector has an internal 3.0V watch type battery (#CR2032). The computer can be run from the internal battery without being connected to a vehicle power source.
- To change the battery, unscrew the battery cap on the back of the computer with a coin. Make sure the positive side of the battery is facing up when replaced.
- **REPLACE WITH BATTERY MODEL NUMBER #CR2032**

Installation

Bar Mounting:

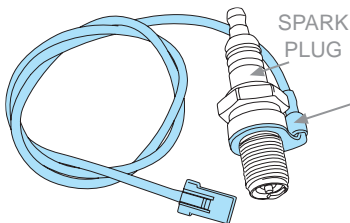
Place bolts as shown in picture.

Remember to use provided nuts when placing bolts.

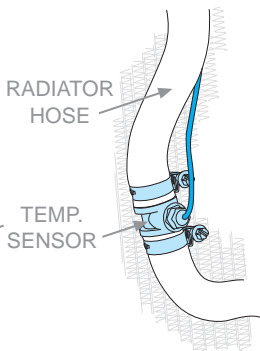


Temperature Sensors:

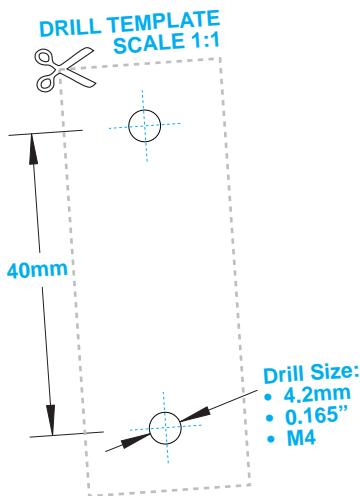
Please see model-specific instructions for mounting procedure.



Cylinder Head Temperature Sensor for air-cooled machines



Temperature Sensor in-line in radiator hose for water-cooled machines

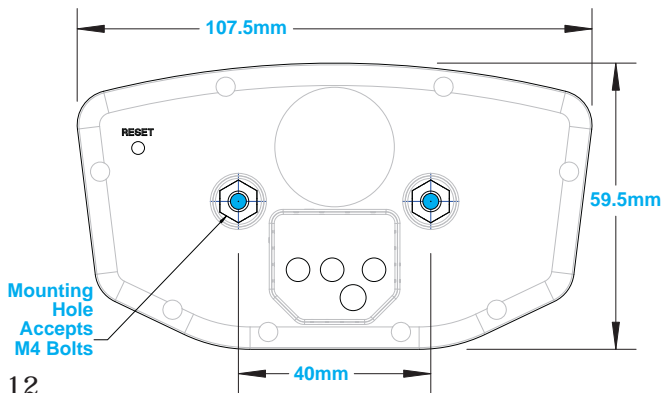


Flat/Surface Mount:

There are two screw holes on the back of Vector. 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 Vector.



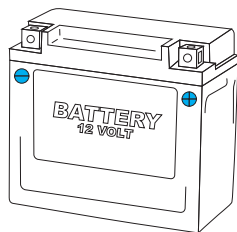
12 Volt Systems:

If possible, install Vector to a 12 volt system:

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

OPTION 1) BATTERY WIRED:

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

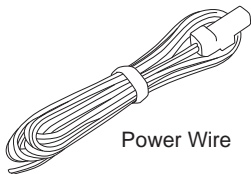


OPTION 2) SYSTEM TAP:

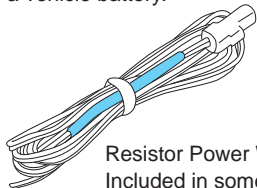
As an alternative to running wires all the way to the battery, it is possible to tap into the electrical system. It is best to connect so power is not interrupted by key switch.

Notes:

- Vector is polarity independent.
Either lead can go to the positive or negative post on the battery.
- Vector will not drain the vehicle battery.
- The "LO" low battery indicator will activate if battery voltage drops below 2.45V.
- Vector will operate in the range of 6.0 - 400 VAC/VDC, but will not draw enough power to drain a vehicle battery.



Power Wire



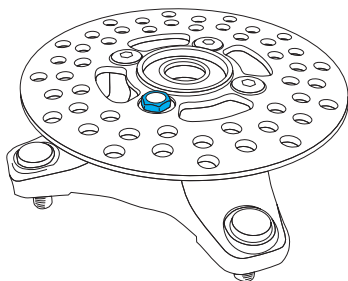
Resistor Power Wire:
Included in some kits.

ATV Sensor/Magnet Installation:

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

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

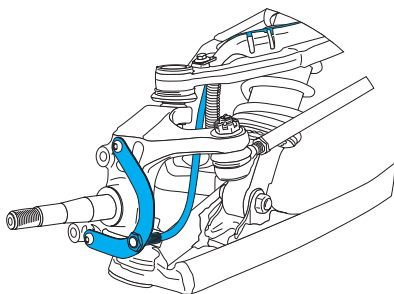
The magnet spins around tripping the sensor switch each time--data collected lets Vector calculate distance and time.



Magnetic Bolt Installation
ATV Rotor

The magnet gets installed on the brake rotor because it spins with the wheel. The provided magnetic bolt can simply replace a stock

rotor bolt (see above picture). If that doesn't work, glue the spare magnet in a hole on the brake rotor. (JB Weld or a similar slow-cure epoxy works well.)



C-Bracket Installation-ATV Left Axle

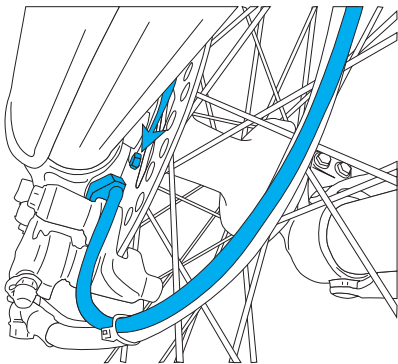
After the magnet is in, the sensor is placed on a non-spinning part the wheel. The sensor typically is placed on either the provided C-bracket or the ATV metal rotor shield.

Motorcycle Sensor/Magnet Installation:

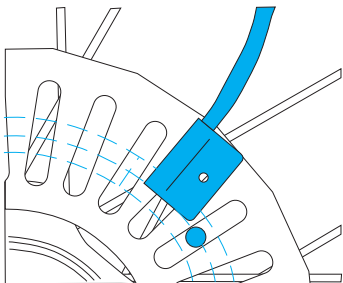
Motorcycles, like ATV's, need a magnet placed on the spinning part of the wheel and the sensor installed to a non-spinning part.

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

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

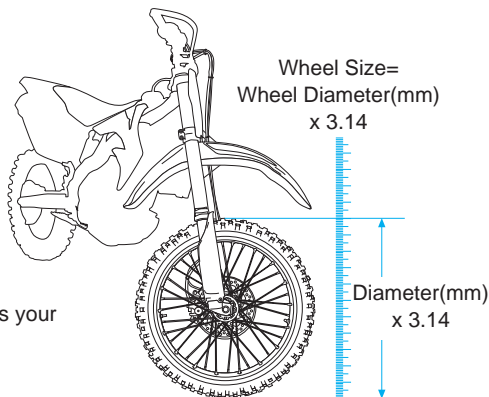
Many Motorcycles and ATV's have special installation procedures. Refer to the provided installation insert for specific instructions for your machine or visit www.TrailTech.net.

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 and convert the measurement to mm (multiply inches by 25.4). 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 Vector to operate correctly.

Available Settings:

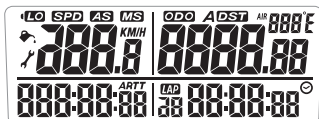
- Kilometers or Miles per Hour
- Wheel Size in Millimeters
- 24 hour or 12 hour Clock Format
- Time of Day
- Temperature Unit of Measure, °F or °C

After a setting is confirmed, Vector will move on to the next setting in order. If no button is pressed for 15 seconds, Vector will return to Normal Mode.

Enter Data Setting Mode:

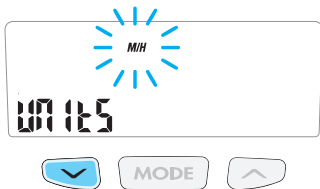
TO ENTER DATA SETTING MODE, HOLD DOWN ALL THREE BUTTONS FOR 3 SECONDS

All digits will light up.
Release buttons to continue.



Program Kilometers or Miles Per Hour:

TO CYCLE BETWEEN M/H AND KM/H, PRESS THE LEFT BUTTON.



TO CONFIRM, PRESS THE CENTER BUTTON.

Vector will go to the next setting.

MODE

Program Wheel Size:

See "Measuring Wheel Size" section for more information.

DEFAULT ATV: 1676mm

MOTORCYCLE: 2109mm



MODIFY FLASHING DIGIT BY
PRESSING THE LEFT BUTTON.

CHANGE TO NEXT DIGIT BY
PRESSING THE RIGHT BUTTON.

TO CONFIRM, PRESS THE CENTER BUTTON.

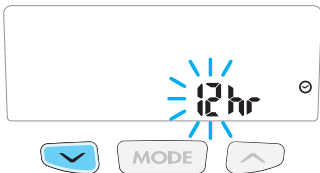
Vector will go to the next setting.

MODE

Program 12 or 24 Hour Clock Format:

Vector defaults to 12H format.

**TO CYCLE BETWEEN
12H AND 24H, PRESS
THE LEFT BUTTON.**



TO CONFIRM, PRESS THE CENTER BUTTON.
Vector will go to the next setting.



Program Time of Day:

**MODIFY FLASHING DIGIT BY
PRESSING THE LEFT BUTTON.**



**CHANGE TO NEXT DIGIT BY
PRESSING THE RIGHT BUTTON.**



TO CONFIRM, PRESS THE CENTER BUTTON.
Vector will go on to the next setting.





Program Temperature Unit of Measure:

Choose between °C or °F.

**TO CYCLE BETWEEN
°C or °F, PRESS
THE LEFT BUTTON.**



MODE



TO CONFIRM, PRESS THE CENTER BUTTON.

Vector will go on to the next setting.

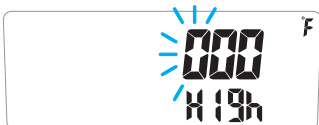


Program High Temp Warning Point:

When the engine temperature sensor reaches the value of this setting, the amber left LED will turn on as a cautionary warning. Setting to 0 disables the alert. Vector defaults to 0°.

MODIFY FLASHING DIGIT BY PRESSING THE LEFT BUTTON.

CHANGE TO NEXT DIGIT BY PRESSING THE RIGHT BUTTON.



TO CONFIRM, PRESS THE CENTER BUTTON.

Vector will go on to the next setting.

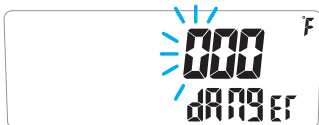


Program Danger Temp Warning Point:

When the engine temperature sensor reaches the value of this setting, the red right LED will turn on as a critical warning. Setting to 0 disables the alert. Vector defaults to 0°.

MODIFY FLASHING DIGIT BY PRESSING THE LEFT BUTTON.

CHANGE TO NEXT DIGIT BY PRESSING THE RIGHT BUTTON.



TO CONFIRM, PRESS THE CENTER BUTTON.

Vector will go on to the next setting.





Set Oil and Maintenance Reminders:

Set the number of kilometers or miles left until Vector displays the oil and wrench shaped reminder icons. After setting <OIL>, the <CARE> setting screen will appear. Vector defaults to 0 KM/H or M/H.

**MODIFY FLASHING DIGIT
BY PRESSING THE LEFT
BUTTON.**

**CHANGE TO NEXT DIGIT
BY PRESSING THE RIGHT
BUTTON.**

**TO CONFIRM, PRESS THE
CENTER BUTTON.**

Vector will return to normal mode after setting <CARE>.



- Each km/mile the bike travels lowers the maintenance reminder values by 1.
- When a maintenance reminder countdown reaches 0 while riding, the respective icon (/ or) will activate (turn on).
- Vector will not increase the value of the maintenance reminders automatically; they must be manually increased in data setting mode.
- When maintenance reminder setting screens are viewed in data setting mode, the icons will turn off if they have been activated.

Things that will not affect the maintenance reminders:

- Entering data setting mode
- Using the adjustable trip distance feature
- Resetting single-ride data
- A system reset

Normal Mode Screens

Switch between the 3 Normal Mode Screens:

All of the information that Vector 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 THE CENTER BUTTON OR
THE MIDDLE BUTTON.**



or



Screen 1:

Screen 1 Displays:

- Speed (SPD)
- Distance (DST)
- Ride Time (RT)
- Time of Day
- Engine Temperature



Screen 2:

Screen 2 Displays:

- Average Speed (AS)
- Distance (DST)
- Stop Watch (TT)
- Time of Day
- Air Temperature



Screen 3:

Screen 3 Displays:

- Maximum Speed (MS)
- Odometer (ODO)
- Accumulated Ride Time (ART)
- Time of Day
- Maximum Engine Temperature



Vector will display “- -” for engine temperature until the temperature reaches 100°F (38°C.)

Vector Features

Overview:

Vector is in Normal Mode during regular use.

Available Features:

- Sleep Mode
- Speedometer (Speed, Average Speed, Maximum Speed)
- Distance (Odometer, Adjustable Trip Distance)
- Clock (Time of Day, Ride Time, Stop Watch, Accumulated Ride Time)
- Temperature (Ambient Air and Engine)
- Shift Indicators
- Reset single-ride data to zero

Sleep Mode:

If Vector 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.



Speedometer:

Description:

The speedometer shows the current vehicle speed. Vector also shows average and maximum speed since the last reset.

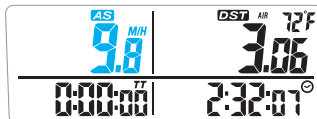
Speed:

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



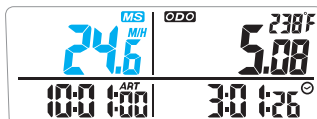
Average Speed:

Average Speed displays on screen 2 next to the AS icon. The average speed the vehicle has travelled since the last reset.



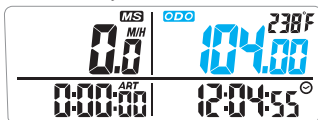
Maximum Speed:

Maximum speed is displayed on screen 3 next to the MS icon. Maximum and average speed are reset by a trip-data reset <LEFT> + <MODE>.



Odometer:

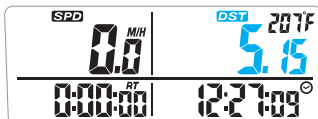
Description: The odometer will provide the user with a numeric display of total accumulated distance in miles or kilometers. The odometer is not resettable. The odometer is shown only on screen 3.



Trip Distance Meter:

Description: The trip distance meter shows how much distance has been traveled since the last reset.

Trip Distance: Trip distance is displayed in the upper right of screens 1 and 2, next to the DST icon.



TO RESET TRIP DISTANCE, RESET SINGLE-RIDE DATA BY HOLDING THE LEFT AND CENTER BUTTONS FOR 3 SECONDS.



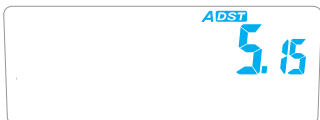
+

MODE

Adjustable Trip Distance Edit:

Description: The trip distance meter shows how much distance has been traveled since the last reset.

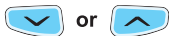
Adjustable Trip Distance: Trip distance is displayed in the upper right during trip distance edit mode, next to the ADST icon.



ENTER TRIP DISTANCE EDIT BY HOLDING THE CENTER BUTTON FOR 3 SECONDS.

A blue rounded rectangular button with the word "MODE" in white capital letters.

SCROLL DISTANCE VALUE BY PRESSING THE RIGHT OR LEFT BUTTONS.



Hold the button down and Vector will scroll faster.

TO EXIT TRIP DISTANCE EDIT, HOLD THE CENTER BUTTON FOR 3 SECONDS.

A blue rounded rectangular button with the word "MODE" in white capital letters.

Vector will return to normal mode.

Vector will return to normal mode automatically after 5 seconds of inactivity.

Note: For a quicker way to adjust distance see Rally Mode, page 38.

Clock and Stop Watch:

Time-of-Day Clock: The time-of-day clock is displayed in the bottom right corner of all three screens next to the clock icon and during sleep mode. The clock is displayed in either 12H or 24H format.



Stop Watch:

The stop watch (TT) is displayed on screen 2. The stop watch functions like any simple stop watch. Press <LEFT> or <BOTTOM> to start or stop the stop watch.



TO RESET THE STOP WATCH, RESET SINGLE-RIDE DATA BY HOLDING THE LEFT AND CENTER BUTTONS FOR 3 SECONDS.



Ride Time and Accumulated Ride Time:

Ride Time

Ride time is displayed in the bottom left corner of screen 1. Ride time shows how long the engine has been running since the last reset.



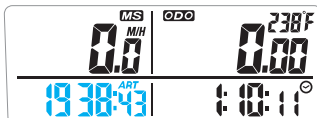
TO RESET RIDE TIME TO 0, RESET SINGLE-RIDE DATA BY HOLDING THE LEFT AND CENTER BUTTONS FOR 3 SECONDS.



Accumulated Ride Time:

Description:

Accumulated Ride Time (ART) tracks the total amount of time the vehicle has been in motion. Accumulated Ride Time is not resettable.



Display:

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

Ambient Air Temperature/ Engine Temperature:

Vector displays different temperature information on each of the three normal mode screens.

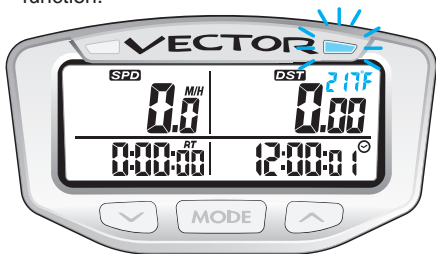
Screen 1: Engine temperature

Screen 2: Air (ambient) temperature

Screen 3: Displays maximum engine temperature received by the sensor since the last reset

Temperature LED's:

- When Temperature reaches Vector's High Temp Setting, the left LED will light, signaling the bike is starting to get too hot.
- When Temperature reaches Vector's Danger Temp Setting, the right LED will light, signaling the bike is dangerously hot.
- Temperature measurements use user defined values to advise when the engine is getting too hot. Temperature cut-off values must be programmed manually. See page 22.
- Vector must be connected to external power or LED's will not function.



RIGHT LED:
Over-Temp Alert

LEFT LED:
Temperature
Caution Alert

Vector will display “- -” for engine temperature until the temperature reaches 100°F (38°C.)

Reset Single-Ride Data to Zero:

Resets temporary data:

- Maximum Speed (MS)
- Stop Watch (TT)
- Maximum Speed (MS)
- Stop Watch (TT)

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,
HOLD THE LEFT AND CENTER
BUTTONS FOR 3 SECONDS.**



Vector must be reset in order to recognize sensors:

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

Lap Timer Mode

Overview:

This enhanced feature set is designed for race riders and time trials. Hit the lap counter button each time around the track -- compare lap times on the fly with pace lights, or wait and review precise lap information afterwards. Remote switch required for lap timer Mode.



Lap Timer Screens:

Lap Timer Mode Displays:

- Speed (SPD)
- Distance (DST)
- Lap Number (LAP)
- Lap Timer (TT)
- Engine Temp (All Screens)

Individual Lap Data Screens:

- Individual Lap Speed (SPD)
- Individual Lap Distance (DST)
- Individual Lap Times (TT)
- Lap Number (LAP)

Maximum Lap Data Screen:

- Max Speed All Laps (MS)
- Total Distance All Laps (DST)
- Total Time All Laps (TT)
- Lap Icon (LAP)

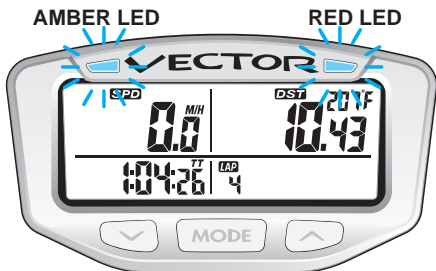
Total Average Lap Data Screen:

- Average Lap Speed (AS)
- Average Lap Distance (ADST)
- Average Lap Time (ATT)
- Lap Icon (LAP)

Pace Lights:

Vector keeps track of how fast each lap has been run. At the beginning of Lap 3, the red and amber LED's will begin working.

- Amber means faster than the last lap.
- Red means slower than the last lap.
- A blinking LED means the last lap was the record: either the fastest or slowest lap yet. Amber for fastest or red for slowest.



Notes:

- LED comparison information is accurate to the second. When the rider completes two identical laps (down to the second,) neither LED will light up.
- The LED's will not function unless Vector is installed into a 12 volt electrical system.

Enter or Exit Lap Timer Mode:

ENTER OR EXIT LAP TIMER MODE FROM NORMAL MODE BY HOLDING THE TOP AND BOTTOM BUTTONS ON THE REMOTE SWITCH FOR 3 SECONDS.



The LAP icon will appear indicating Vector is in lap timer mode. The remote switch is required to enter lap timer mode.

Start / Stop Lap Timer:

Confirm Vector is in lap timer mode by checking for the LAP icon.

- When lap mode is first entered, “ON” will be visible, the lap timer active and Vector will be waiting for wheel data.
- Vector waits for two wheel revolutions before collecting data (in order to activate on the start line, but before the start signal.)
- “ON” will appear when lap timer is activated or running.
- “LAP” will appear when the lap timer is stopped; after 3 seconds “LAP” will change to “OFF”.

TO START OR STOP COLLECTING LAP DATA, PRESS THE TOP BUTTON.



Signal New Lap:

At the beginning of each new lap, press the bottom button on the remote switch to end the current lap and begin a new lap. Vector will display “LAP” for 3 seconds when the new lap begins. Repeat for each new lap. Press the top button at the race end to stop the lap timer.

TO SIGNAL A NEW LAP, PRESS THE BOTTOM BUTTON WHEN LAP TIMER IS ACTIVATED OR RUNNING.



Lap Data Review Mode:

View lap information when in lap timer mode, the vehicle is stopped and the lap timer is paused.

TO ENTER OR EXIT LAP DATA REVIEW MODE, PRESS THE MIDDLE BUTTON ON THE REMOTE WHILE IN LAP TIMER MODE.



LAP DATA REVIEW MODE IS A LOOP. PRESS THE TOP OR BOTTOM BUTTON ON THE REMOTE TO SCROLL THROUGH LAP DATA SCREENS.



or



Vector shows lap data screens in order:

- 1: Individual lap data screens**
“SPD, DST, TT, and LAP” will appear when viewing individual lap data screens. Vector can record information for up to 29 laps.
- 2: Total maximum lap data screen**
“MS, DST, TT, and LAP TOTAL” will appear when viewing the maximum lap data screen.
- 3: Total average lap data screen**
“AS, ADST, ATT, and LAP TOTAL” will appear when viewing the average lap data screen.

Clear Lap Timer Data:

At the beginning of each ride, clear lap timer data so new information can be gathered. Lap timer data can only be reset from within lap timer mode.

TO CLEAR LAP TIMER DATA, HOLD THE LEFT AND CENTER BUTTONS DURING LAP TIMER MODE.



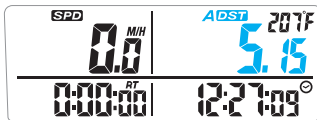
Rally Mode

On-the-Fly Adjustable Trip Distance Edit:

Rally and enduro racing requires the rider to be able to adjust the trip distance meter quickly and easily. Rally mode requires the remote switch.

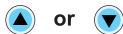


ENTER RALLY MODE FROM NORMAL MODE BY HOLDING THE MIDDLE BUTTON ON THE REMOTE SWITCH FOR 3 SECONDS.



- In Rally Mode, the adjustable distance (**ADST**) icon will be visible.
- In Rally Mode, the buttons on the main computer will operate and all information will be visible as normal. The remote switch buttons will be reserved for Rally Mode until Rally Mode is exited.
- Vector will not return to normal mode automatically. Vector will stay in Rally Mode for quick distance adjustments.

SCROLL DISTANCE VALUE BY PRESSING UP OR DOWN ON THE REMOTE.



Hold the button down and Vector will scroll faster.

TO EXIT RALLY MODE, HOLD THE MIDDLE BUTTON ON THE REMOTE FOR 3 SECONDS.



Vector will return to normal mode.

Notes

Notes:

Troubleshooting

Frequently Asked Questions:

Why does nothing work?

- Try the reset button on the back of Vector.
- The internal battery may be dead, or Vector is not hooked up to vehicle power properly. Review installation procedure.

Why doesn't the engine temperature feature work?

- You must have the engine temperature sensor installed correctly for this feature to function. Review installation procedure.
- If a wire has become disconnected and plugged back in, perform a reset by pressing <LEFT>+<CENTER> or the reset button on the back of Vector. A data reset must be performed in order for Vector to re-recognize the sensors if they become unplugged.
- Vector will display “- -” for engine temperature until it reaches 100°F (38°C.)

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

- The speed sensor/magnet may be installed incorrectly. Double check to make sure everything is set up right. See page 14-15.
- The wheel size setting may be incorrect. Please review wheel size measurement instructions in this manual. See page 16.

Vector is not displaying information correctly.

- If the wires on the back of Vector become damaged, incorrect readings may be displayed.
- Avoid twisting, crimping, kinking or otherwise abusing the wires.

The screen is hazy or crazed.

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

The backlight won't stay lit.

- Vector needs to be connected to vehicle's 12 volt system in order for the backlight to be continuous on. Review installation procedure. See page 9.

Vector's internal battery is dead.

- To replace the battery, use a coin to unscrew the round panel on the back of Vector. Remove the old battery and install the new one. Make sure the positive pole is facing up. Replace with common watch battery CR2302. See page 10.

Why aren't the LED's working?

- Vector needs to be connected to vehicle's 12 volt system in order for the LED's to function.
- Settings must be programmed manually. See pages 8, 22, and 35.

A wire came unplugged, and now the sensors don't work.

- A data reset must be performed in order for Vector to re-recognize the sensors if they become unplugged. Perform a reset by pressing <LEFT>+<CENTER> or the reset button on the back of Vector.

**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.

ADJUSTABLE DISTANCE EDIT (ADST): Edits the distance traveled since the last trip data reset. Useful for rally and enduro racing. Similar to rally mode but does not require the remote switch.

AVERAGE SPEED (AS): The median (average) speed the vehicle has been traveling since the last trip data reset.

BACKLIGHT: The light that brightens up Vector's display.

DATA SETTING MODE: The place to set Vector's settings. Includes distance units, wheel size, clock format, time, temperature units, high temp setting, over temp setting, and oil and maintenance reminders.

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.

LAP TIMER MODE (LAP): This enhanced feature set is designed for race riders and time trials. Compare lap times on the fly with pace lights, or wait and review recorded lap information after the race. Lap timer mode requires the remote switch.

MAINTENANCE REMINDERS (🔧🔩): User programmable countdown in miles or kilometers for oil and care reminder icons.

MAXIMUM SPEED (MS): Highest speed achieved since the last reset.

NORMAL MODE: Vector's standard mode.

ODOMETER (ODO): The total accumulated distance Vector has traveled. The odometer is permanent and cannot be reset.

RALLY MODE (ADST): Rally and enduro racing requires the rider to be able to adjust the trip distance meter (DST) quickly and easily. During rally mode, distance adjustments are as easy as pressing a button on the remote switch. Rally mode requires the remote switch.

REMOTE SWITCH: Mounts to handlebar next to grips. The remote's buttons act as duplicates of the buttons on the main computer. The remote is required to access lap timer and rally modes.

RIDE TIME (RT): Shows how long the engine has been running since the last reset.

SENSORS: The speed sensor works with the magnet to let Vector collect its wheel data and a second sensor will measure the temperature.

SLEEP MODE: If Vector doesn't receive any sensory information it will go into Sleep Mode and only display the clock.

SPEED (SPD): The current speed the vehicle is traveling.

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.

LIMITED WARRANTY

Within one year from the date of original purchase, Trail Tech will repair or replace, at its option, any Trail Tech powersport computer which is deemed defective in workmanship or materials.

Please contact Trail Tech or dealer where item was purchased for assistance.

Damage or injuries resulting from negligence or misuse are not covered by this warranty. Incidental or consequential damages are specifically excluded.* This warranty gives you specific legal rights. You may also have other rights which vary from state to state. *Because some states do not allow the exclusion of incidental or consequential damages, this exclusion may not apply to you.

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