Voyager Pro4

User's Guide Help

Hello Adventurer!

Trail Tech brings functionality and life to your motor vehicle with high quality and innovation. To ensure long and trouble-free operation, this embedded user's guide contains valuable information about how to operate and maintain your digital gauge properly.

Please read this manual carefully.

Tap the ? in the top corner of menu screens to get useful tips and information.

Use the links below to navigate.

Thanks for riding with Trail Tech!

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Below is an overview of available help screens.

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Precautions Help

1. To charge Voyager Pro4 using a wall outlet, a Trail Tech approved wall charger is required (not provided in kits.) Attempting to charge Voyager Pro4 directly off an outlet will result in failure of your device.

2. Read all instructions before using Voyager Pro4.

3. Avoid contact with gasoline, degreasers or other chemical cleaners.

4. Do not wash with pressure washer.

5. When installing Voyager Pro4, disconnect the vehicle battery.

6. When installing radiator hose temperature sensors, make sure it fits BEFORE cutting the radiator hose.

7. Check gap between wheel sensor and magnet periodically to ensure correct measurements and reading on Voyager Pro4.

8. Do not bend, twist, kink or abuse the sensor cables.

9. Do not disassemble Voyager Pro4 or its accessories.

10. Do not operate Voyager Pro4 while driving/riding.

11. Do not rely on Voyager Pro4 for operations requiring precise measurements of distance or direction. All GPS devices inherently contain some amount of error. Use the wheel sensor for the most precise data.

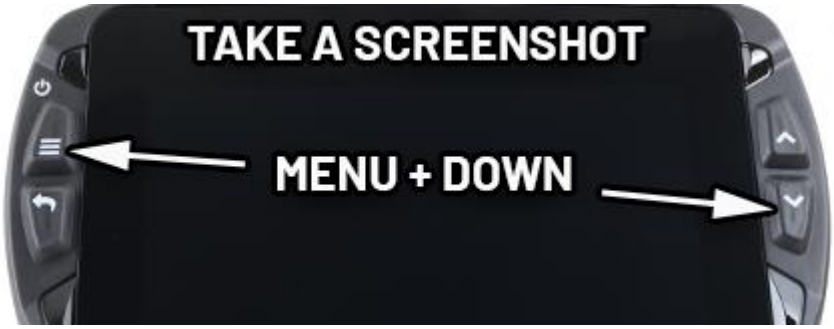
12. Introducing a fuse into the circuit before electronics is always a good idea. Use a 2 amp fuse with Voyager Pro4 (not provided.)

13. PAY ATTENTION TO THE TRAIL!

FAQ Help

How do I take a screenshot?

Press the Menu button and the Down button at the same time. A JPG image file will be saved to the MicroSD card. If you share it on social media, tag us #ridetrailtech.



How long does the internal battery take to charge fully?

Voyager Pro4 takes 3-8 hours to fully charge depending on charge mode. You do not need to pre-charge it; connect and ride. Voyager Pro4 only charges when turned on to avoid drawing down the vehicle battery. In handheld mode, charge should last 40 minutes or more depending on features in use.

How does sleep mode work?

After a short period of inactivity, Voyager Pro4 will enter sleep mode. Adjust the sleep mode setting to change the timeout period. Vehicle sensors can keep Voyager Pro4 awake using the wake-detection setting while the vehicle is moving. After 15 minutes in sleep mode, Voyager Pro4 shuts down completely to protect the vehicle battery. A button press is required to wake Voyager Pro4 after shutdown.

How do I get the best GPS reception?

The internal antenna is designed for optimum reception. If Voyager Pro4 is mounted where metal blocks the internal antenna, consider an external GPS antenna for better positioning.

How do I mount Voyager Pro4 to my machine?

Voyager Pro4 is compatible with RAM mounts. Vehicles with handlebars can use the included handlebar mounting hardware. Protective accessory mounts are also available, or use the dock's four mounting holes for dashboard mounting.

What kind of power does Voyager Pro4 need for proper operation?

Voyager Pro4 requires DC power to function and charge correctly. DC power systems with a failing vehicle battery may produce too low a system voltage (<11.5V) for proper operation. For applications where DC power is not available, Trail Tech offers an AC wall charger for Voyager Pro4 to charge the internal battery.

Voyager Pro4 kits include physical sensors, magnets, and other cables. Why, if it's a GPS?

You can use Voyager Pro4 without any sensors connected. However, connecting the vehicle sensors enables several features, including additional gauges, higher precision, and battery charging.

My other GPS unit gets along just fine without a wheel sensor. Do I really need one?

All speed and distance data can be gathered from either GPS or the wheel sensor.

Trail Tech believes an accurate odometer and hour meter are critical features. To maintain this accuracy, a wheel sensor is recommended.

1. When using a wheel sensor, Voyager Pro4 knows to stop logging when the vehicle stops moving. When you start rolling again, Voyager Pro4 knows to resume logging without GPS-induced lag.

2. The wheel sensor will track distance even when the GPS signal is out of range.

3. GPS cannot tell the difference between a motorcycle moving under its own power or riding in the back of a truck.

4. The GPS signal can be lost, especially around metal structures or in tunnels. With no signal, speed and distance accuracy are reduced.

5. GPS cannot see small changes in elevation, such as whoops and ruts. Over time this creates odometer error.

6. GPS is most accurate while traveling in straight lines at constant velocity. Tight, fast corners can cause the GPS to skip part of your path and contribute to odometer error.

Can Voyager Pro4 use GPX files?

GPX (GPS Exchange Format) is Voyager Pro4's native track format. Import and export recorded tracks between the MicroSD card and dozens of software programs and web services.

Can Voyager Pro4 be turned on and off manually?

Yes. Hold down the upper-left button to power Voyager Pro4 off.

How do I run Voyager Pro4 without connecting it to a vehicle?

Voyager Pro4 provides an easy way to change unit settings for a wide variety of uses. There are a few menu options to change when Voyager Pro4 is used without external power:

1. Vehicle Profile > Wake Detection, Speed Source, and Charge Mode

2. Maps and GPS Setup > AutoLog Source

Physical Features Help

There are a few things to know about the outside of Voyager Pro4:

1. The four buttons on the case are for Menu/Power/Confirm, Back, Up and Down.

2. The large button at the top of the dock releases Voyager Pro4. The dock should be mounted securely and wired in.

3. External antennas extend the range of Voyager Pro4's features.

4. Voyager Pro4 is compatible with the popular RAM mounts. Kits may include handlebar, suction cup, or steering column mounts.

5. The MicroSD card is the primary way to transfer data files to and from Voyager Pro4. (MicroSD card not included in kits.)

6. Installing all the vehicle sensors isn't required, Voyager Pro4 will do its best to use GPS data. However, each installed sensor unlocks new features of Voyager Pro4.

Buttons Help

Touch Screen

Control Voyager Pro4 maps and menus by tapping and swiping the touch screen.

Menu Button

Confirm selections and open the settings menu. Hold the Menu button to power Voyager Pro4 off. Hold it longer to perform a hard shutdown.

Back Button

Back out of the current screen or menu. On main screens, the Back button opens that screen's mini-menu when one is available.

Up and Down Buttons

Scroll between main screens and navigate menu options.

Dock Help

The Dock

The dock should be secured to the vehicle and wired in. The quick-release dock allows for swapping Voyager Pro4 between several vehicles.

The Dock's Button

Press the large button at the top of the dock to release Voyager Pro4 from the dock.

The Dock's Wires

The dock's wires connect to the vehicle sensors. Wheel sensor for speed, spark sensor for tach, battery connection for power and voltage, and thermometer for temperature. Voyager Pro4 will operate without any vehicle sensors attached by using GPS data, but you should at least install the power wire to keep the internal battery charged up.

The Dock's Antenna Ports

Two threaded brass ports on the back of the dock are for connecting external antennas. An external antenna is REQUIRED for buddy tracking and could improve GPS signal strength in rough terrain.

Radio antennas plug into the male port, and GPS antennas plug into the female port.

Locking the Dock

A small Allen wrench can be used to lock Voyager Pro4 to the dock for added security. Turn the small Allen screw inside 6 times to lock or unlock.

Antennas Help

Internal GPS Antenna

The internal GPS antenna is great for normal use. If there is excessive metal around the mounting location it could interfere with reception. An external GPS antenna can be installed into the dock's GPS antenna port in order to achieve a better antenna mounting position.

Antenna Ports

Two brass antenna ports are found on the dock next to the sensor wires. The left dock is female and accepts external GPS antennas. The other port is male and only accepts radio antennas.

1. External Plastic Radio Antenna

The external plastic radio antenna is designed to be mounted to plastic, like a number plate. It should be mounted vertically (up and down.) This antenna works well for most applications and is included in most Voyager Pro4 kits. Installing it enables buddy tracking features.

Mounting Help

Voyager Pro4's dock is ready for mounting with the AMPs hole pattern.

RAM Mounts

RAM brand mounts are recommended. Voyager Pro4 can be mounted anywhere using the wide array of RAM mounts.

Bar Mounting

Kits intended for motorcycles include bar clamps for 7/8" through 1-1/8" handlebars.

An aluminum center mount is available from Trail Tech for 1-1/8" handlebars.

Surface Mounting

The dock can be mounted to any flat surface, like a UTV dashboard. Drill the holes using the AMPs hole pattern and secure with bolts.

MicroSD Card Help

Insert any MicroSD card into the side of Voyager Pro4. Make sure the card slot cover is properly seated to keep debris out.

An installed MicroSD card enables track import and export, plus import of supported custom map files.

After exporting a track to the MicroSD card, insert it into your computer's card reader to save the track or view it in a mapping application like Rideleader.com.

Use the exFAT type if you format your MicroSD card on a PC.

Tracks saved on your computer can be placed on the MicroSD card, then imported onto Voyager Pro4 for viewing and route following. This is a great way to share tracks with friends or to pre-plan your own trips.

Vehicle Sensors Help

Each installed vehicle sensor unlocks new features of Voyager Pro4:

Power Wire

Installing the power wire enables smart wake-detection and constant charging. If you only install one sensor, this is the one.

Introducing a fuse into the circuit before electronics is always a good idea. Use a 2 amp fuse with Voyager Pro4 (not provided.)

See #vehicle-power for important information about power and Voyager Pro4.

Engine Temperature

The engine temp sensor enables gauge screen temperature readouts and over-temp warning lights.

Tach Sensor

The ignition sensor enables the tach bargraph screen and over-RPM warning lights. The tach signal can pause track recording while the engine is turned off.

Wheel Sensor

The wheel sensor provides slightly more accurate speed and distance than GPS. The speed signal can pause track recording while no vehicle movement is sensed (the most accurate method).

Vehicle Power Help

Vehicle Power

Installing the power wire enables smart wake-detection and constant charging. If you only install one sensor, this is the one.

DC power required. Do not connect Voyager Pro4 to AC power except when using the AC wall charger. Connect to a switched 12V DC power source so that power to Voyager Pro4 is cut when the vehicle is turned off. When connected to the vehicle battery, charging will begin immediately and Voyager Pro4 should have full functionality. **On some bikes, erratic tach readings can be fixed by wiring the power directly to the battery instead of behind the key switch.**

There are a few menu options to change when Voyager Pro4 is used without a connection to vehicle power:
1. Vehicle Profile > Wake Detection, Speed Source, Charge Mode
2. Maps and GPS Setup > AutoLog Source

FOR USE ON 12V DC SYSTEMS ONLY!

Vehicles with DC Power: Voyager Pro4 requires DC power. Vehicles with a battery or capacitor and regulator/rectifier produce DC power. Connect the power wire directly to the vehicle's 12V battery. Connect the red wire to the positive(+) battery terminal and the black wire to the negative(-) battery terminal.

Vehicles with AC Power: Use the Voyager Pro4 AC wall charger, or upgrade to a DC electrical system. Most carburated MX bikes put out AC power, but Voyager Pro4 requires DC power.

A 2-amp fuse (not provided) can be used when wired directly to the vehicle battery. The primary benefit is to avoid overheating the power wire if it becomes significantly kinked or pinched.

Voyager Pro4 can be set to charge always, or to only charge when the engine is running. In any case, charging only occurs when Voyager Pro4 is turned on, to avoid drawing down the vehicle battery.

A button press is required to wake Voyager Pro4 after shutting down. Complete shutdown happens 15 minutes after going into sleep mode, to avoid drawing down the vehicle battery. Wake-detection operates during sleep mode, but not after shutdown.

AC Adapter Wall Charger

A Trail Tech wall charger can be used to power Voyager Pro4 indoors.

Vehicle Accessory Socket

If Voyager Pro4 is mounted inside a vehicle using the suction cup or steering column mounts, it may make more sense to draw power from the vehicle's accessory power socket.

Ignition Sensor Help

The ignition sensor detects the on/off status of the engine. When the engine is shut off, Voyager will go to sleep for power conservation.

The ignition sensor enables the tach bar on the tach graph screen.

To install the tach ignition sensor, wrap the sensor wire around the vehicle's spark plug wire. The sensor detects a pulse every time the spark plug fires.

If tach readings are erratic, there may be electrical static. Try using more or less sensor wraps and avoid running the sensor wire along other heavily charged wires. Adding an inline resistor can help with erratic tach but is not normally needed. Wiring the power wire directly to the battery instead of behind the key switch may also help with erratic tach.

If tach readings are way off, check your PPR (pulses per revolution) setting. Also try adjusting the tach sensitivity setting, use more or less wraps, and do not route the wire along other wires that carry an electrical charge.

Temperature Sensors Help

A temperature sensor tells you how hot your vehicle is getting. Installing one enables engine temp readouts on the gauge screens.

Radiator Fin Sensor

For water-cooled machines. Fin sensors are a very easy install: press the sensor into the radiator fins. Use a dab of conducting grease to increase the sensitivity. Do not force a fin sensor that is too large at risk of damage to the radiator. Available in 3 sizes.

Cylinder Header Sensor

For air-cooled machines. CHT sensors act as a crush washer between a spark plug and the engine's cylinder head. Available in 3 sizes.

Radiator Hose Sensor

For water-cooled machines. Hose sensors are the most accurate because they directly take the coolant temperature as it leaves the radiator and enters the engine. Installation requires cutting the radiator hose. Be sure to measure the inner diameter of the hose to make sure you have the right sensor BEFORE CUTTING THE HOSE. Available in a variety of sizes.

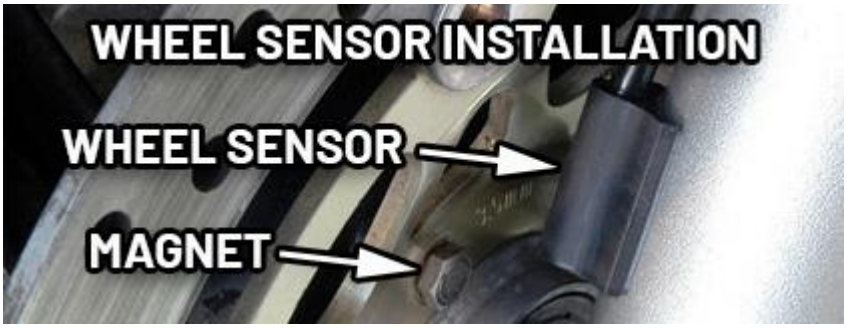
Wheel Sensors Help

While not required, using the wheel sensor is recommended. It will collect more accurate speed and distance data than GPS. Due to limitations in GPS technology, physical sensors perform with more precision. GPS sometimes loses track of your movements, while the wheel sensor always knows when you are moving.

Two halves are required for the wheel sensor to function:

1. A magnet, on the spinning part of the wheel.

2. A speed sensor, on the non-spinning part of the wheel.



The magnet spins around tripping the sensor switch each time--giving speed, distance and time data to compare with the GPS data.

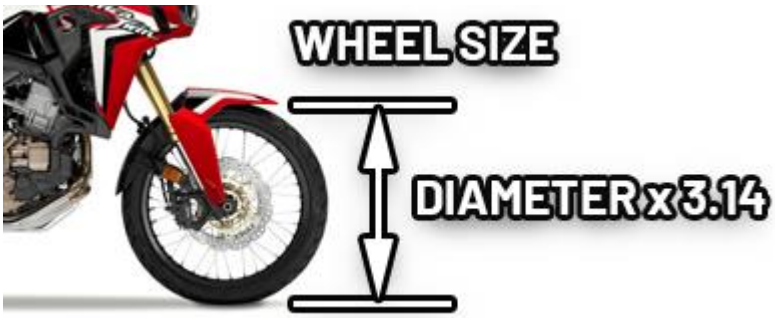
The magnet is installed on the brake rotor because it spins with the wheel. The provided magnetic bolt replaces a stock rotor bolt. If that will not work, glue the spare magnet in a hole on the brake rotor. (JB Weld or a similar slow-cure epoxy works well.)

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

Many Motorcycles and ATVs have special installation procedures. Refer to the online model-specific instructions for more information.

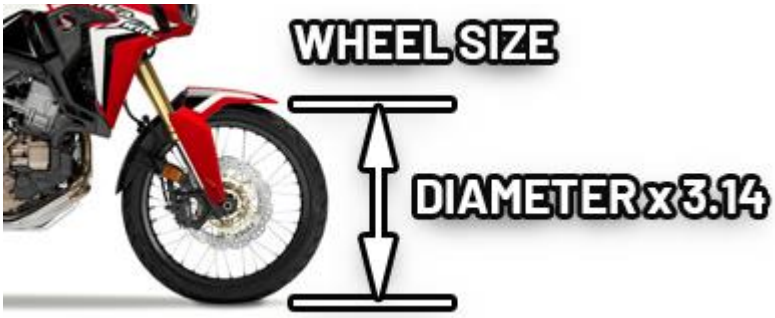
Wheel Size

Knowing your exact wheel size is critical for the wheel sensor to calculate correct speed and distance data. The more accurate the wheel size, the better Voyager Pro4 performs.



Measure Wheel Size Help

Knowing your exact wheel size is critical for the wheel sensor to calculate correct speed and distance data. The more accurate the wheel size, the better Voyager Pro4 performs.



When comparing calibration to GPS data, use a long straight section of road. GPS has trouble with tight fast corners and small vertical movements (causing comparison inaccuracy.)

Method 1: Ruler

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

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 millimeters (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 the measurement.

Input Wheel Size

After measuring, update the wheel size setting.

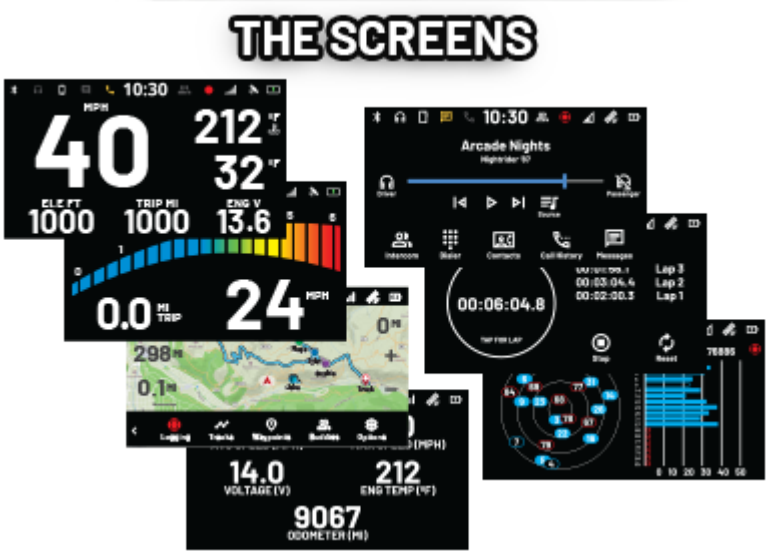
Screens Help

There are several Main Screens

Voyager Pro4 has a series of main information screens: the gauge cluster screen with a large speedometer, the tach screen with an animated tach graph, the map screen, the user definable screen, the stop watch screen, and the GPS satellites screen.

By default, the stop watch and satellite screens are hidden. Power users can streamline the interface by only showing screens they find useful.

Screens can be enabled/disabled in the settings menu.



Basic Controls

Switch screens using the up and down buttons. If a menu is open, cancel it using the back button to return to the main screens.

Notification Bar Help

The bar across the top of the main screens shows the time of day and a variety of helpful icons.

It displays color-coded icons for Bluetooth connection, cellphone connection, headset connection, phone message notification, incoming call notification, buddy tracking status, track logging status, cell signal strength, GPS status, and internal battery level and charging status.

When a message or incoming call notification occurs, an alert bar will drop down from the top of the screen.

Cluster Screen Help

The main gauge screen displays speed and other data from the sensors.

It displays current speed, elevation, engine temperature, ambient temperature, trip distance, and engine voltage.

To reset the trip distance, press and hold the trip gauge and then tap the Ok button.

Engine temperature features require a temperature sensor is installed.

Voltage readouts require the power wire is installed.

Tach Screen Help

The tach screen is dominated by a large animated tachometer bar graph. It also displays ambient temperature, trip distance and current speed.

You can adjust the maximum value of the tach graph in Settings>Vehicle Profile: PPR and tach graph max scale.

To reset the trip distance, press and hold the trip gauge and then tap the OK button.

RPM features only work if an ignition sensor is installed.

Map Screen Help

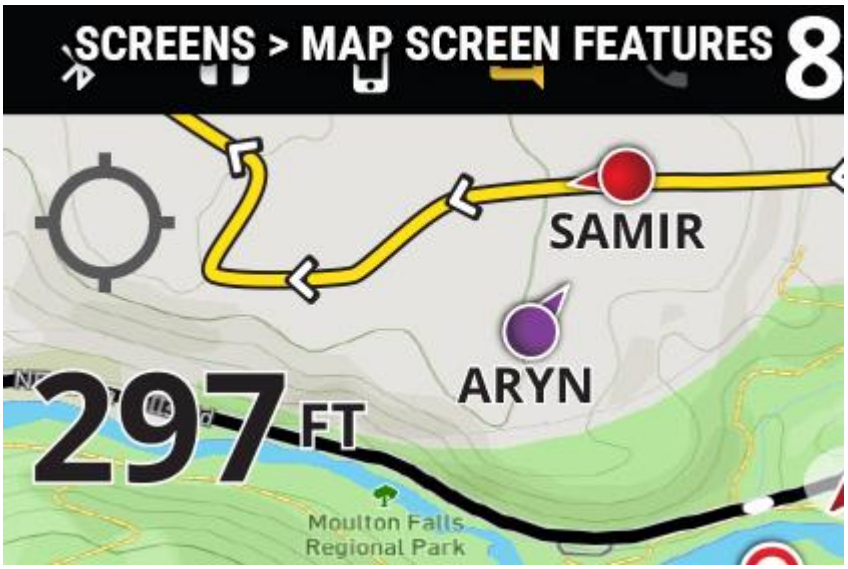
The map screen shows your current GPS position.

Track Recording

When track recording is enabled, Voyager Pro4 draws a track behind you as you travel. You can also place waypoints to mark important locations. Tracks and waypoints can be saved to, or loaded from, the MicroSD card as GPX files.

Buddy Tracking

If you are in a buddy group, group members appear on the map as colored icons with names and direction arrows. Depending on your map settings, Buddy Tails can also show each rider's recent movement.



Track Arrows

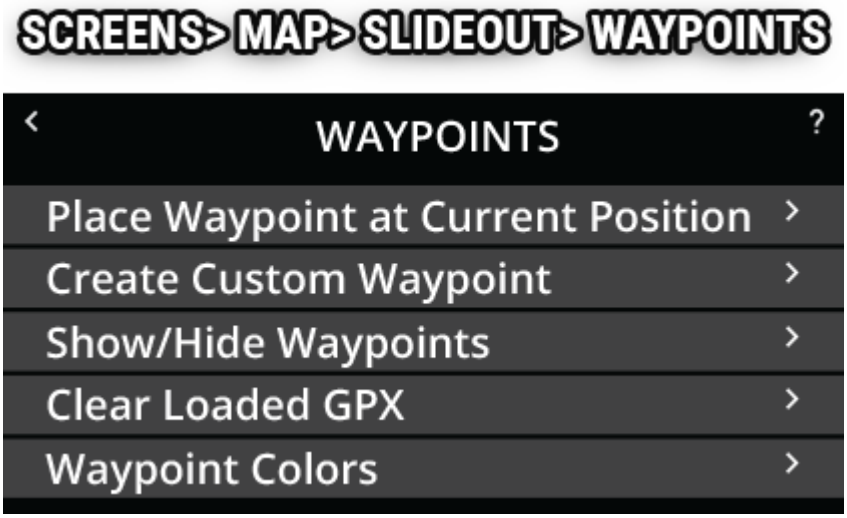
Direction arrows can be shown on loaded GPX tracks to indicate travel direction. Hide them or reverse their direction in map bar options.

Map Screen Gauges

Three vehicle gauges are available on the map screen. To choose which gauges to display, press and hold the upper-right gauge or select MAP GAUGES in the map bar options. Select NONE to hide them.

Map Waypoints

Add a waypoint at your current location by pressing and holding the Waypoints icon in the map screen slideout menu. Tap the icon to access additional waypoint options, including creating a waypoint directly from latitude and longitude. Once a waypoint is on the map, press and hold it to open the detail popup.



Zooming Help

Zoom the map by tapping the + and - buttons, or use a pinch gesture to zoom in and out.

Zoom level is displayed as the map scale in the bottom right corner.

Center Lock/Pan Lock/Buddy Lock Help

The top left button on the map screen will change the centering behavior. You can touch and drag on the map to pan.

Pan Lock

Press and hold the center lock icon to turn on pan lock. A small locked icon will appear next to the center lock icon. When pan lock is enabled, panning and pinch-to-zoom will be disabled, but you can still use the + and - onscreen buttons to zoom with. This mode is useful for wiping the screen clean on dusty trails, or to manually lock the map onto the bounds of a riding area.

Center Lock

When panned off-center, the top left icon will appear as an empty crosshair. Tapping this button will center and lock the map on your current location, and keep the map centered on your location as you travel.

Buddy Lock

When buddy tracking is active, pressing the center lock icon will switch between center lock and buddy zoom. Buddy zoom will automatically zoom and pan the map to keep your entire riding group visible.

Map Mini-Menu Help

The map screen mini-menu provides quick access to frequently used map features.

While on the map screen, press the Back button or tap the 3-dots icon in the lower-left corner to open the menu bar across the bottom of the screen.

From here you can pause or resume track logging, create a waypoint, toggle map layers, set up or join a buddy group, and save or load tracks from the MicroSD card.

If preferred, the bottom menu bar can be set to auto-hide until it is needed.

Tracks Help

The track menu is opened from the map's mini-menu.

Recording Tracks

When recording, a track is drawn behind your location arrow as you move. The red recording icon in the top notification bar will blink to show recording is active. A white circle means that recording is on, but the vehicle is not moving. A pause icon will show when recording is disabled.

New Logging Track

When starting a new logging track, the previous logging track will no longer record but will still be displayed on the map.

GPX Files

A GPX file is a way to store a set of waypoints, tracks, and routes in a small file. The GPX file can be created by Voyager Pro4's track recording abilities, by other GPS devices, or by a desktop computer app or website. When loading a GPX file from the MicroSD card, Voyager Pro4 will scan it for all the waypoints, tracks and routes and add them to the map.

Clear GPX

The clear GPX option removes tracks loaded via GPX files, and stored logging tracks. Clear GPX does not affect the current track logging session or files stored on the MicroSD card.

Load GPX Help

Select a GPX file to load. Loading GPX adds tracks/routes/waypoints from the GPX file to the map.

Save GPX Help

Save the stored list of tracks as a GPX file. The file will be saved on the MicroSD card.

In the save file, you can save just tracks or also include routes and waypoints.

Waypoints Help

Use waypoints to mark important locations, such as a parked vehicle, camp, staging area, or meeting point.

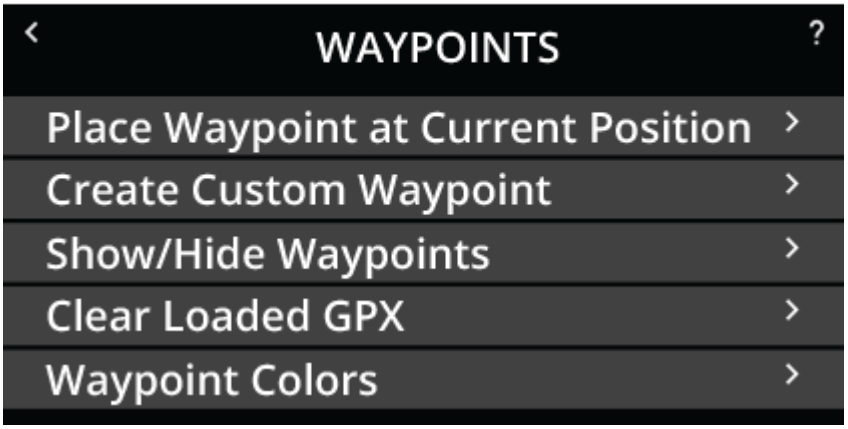
Add a waypoint at your current location using the Waypoints icon on the map mini-menu.

Press and hold on the map screen to drop a waypoint at that location.

Press and hold a waypoint to open a slideout with more information. The slideout shows the position and distance from your current location. Icons at the bottom let you hide or edit the waypoint, or set it as the destination waypoint.

Tap the 3-dots icon on the map screen to open the mini-menu, then tap Waypoints to open the waypoint options menu:

SCREENS> MAP> SLIDEOUT> WAYPOINTS



Place Waypoint at Current Position:
Create a waypoint at your current GPS location.

Create Custom Waypoint:
Create a waypoint by entering latitude and longitude. Enter both values with the onscreen keypad, then confirm to create the waypoint. Use the coordinate format selected in Maps & GPS Setup.

Show/Hide Waypoints:
Show or hide waypoints individually or all at once.

Clear Loaded GPX:
Clear loaded waypoints and tracks from memory.

Waypoint Colors:
Change the color of all waypoints at once. To change a single waypoint, press and hold it on the map screen.

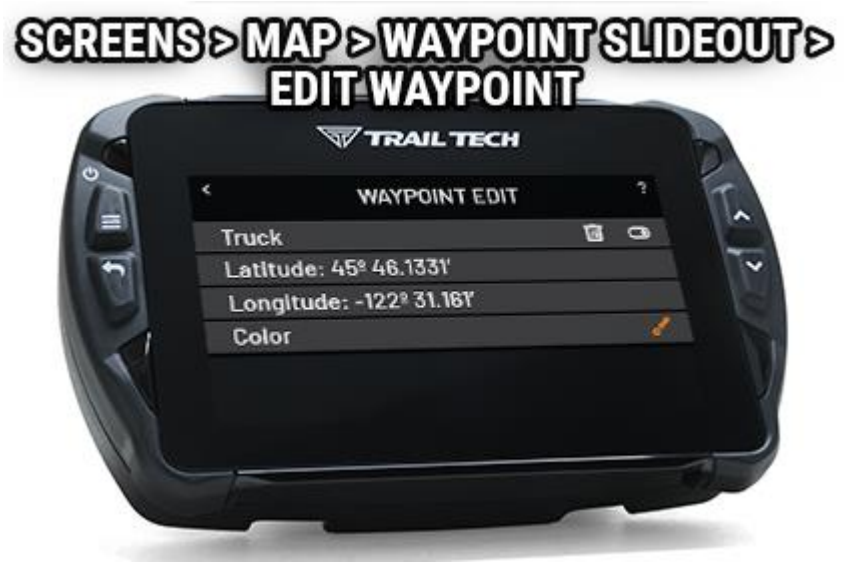
Hide a Waypoint Help

Tap on a waypoint to open its slideout menu, then tap the eye icon to hide the waypoint so that it no longer appears on the map.

Unhide hidden waypoints by tapping the Layers icon in the map mini-menu.

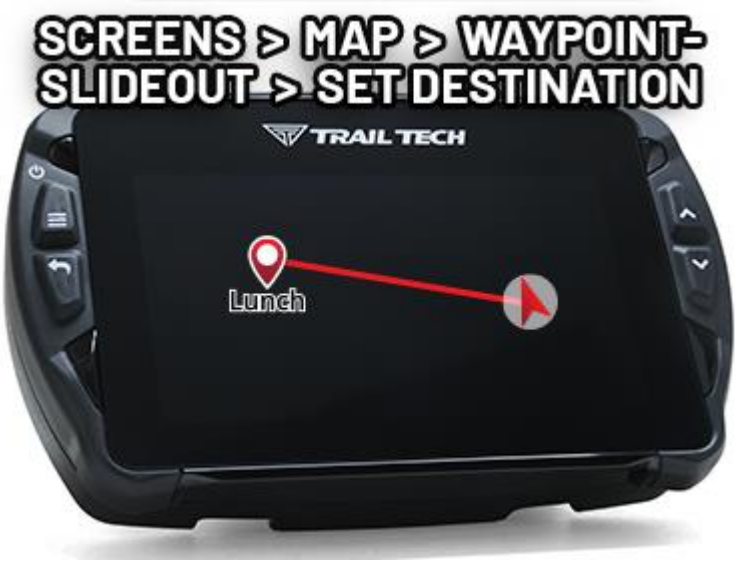
Waypoint Edit Help

Tap on a waypoint to open its slideout menu, then tap the edit icon where you can change the waypoint's name, delete it, or change the marker color.



Set Destination Waypoint Help

Tap on a waypoint to open its slideout menu, then tap the set destination icon. When enabled, a line will be drawn on the map between your location arrow and the destination waypoint marker. The distance to the waypoint will be shown at the bottom of the map. Tap the red "X" next to the distance to cancel the destination.



GPX Display Options Help

When you import a GPX file, it can load tracks, routes, and waypoints. Show or hide them individually or as a group.

Routes and tracks also include Select All and Deselect All shortcuts, which are useful when working with large imported files or multiple rides.

Buddy Tracking Help

Buddy Tracking connects multiple Voyager Pro4 units to a private location-tracking network. Once connected to a buddy group, the map shows the name and location of each group member.

Enable Buddy Tracking

Buddy Tracking uses sub-gigahertz radio signals together with GPS. Best range occurs with clear line of sight. Terrain, vegetation, buildings, and vehicle structure will reduce range. A Trail Tech external radio antenna is required for buddy tracking features.

Buddy Beacon

When you activate Buddy Beacon, your marker flashes red on other riders' screens to draw attention to your location. Buddy Beacon is not an emergency service and does not contact emergency responders.

Ride Command Group Ride Compatibility

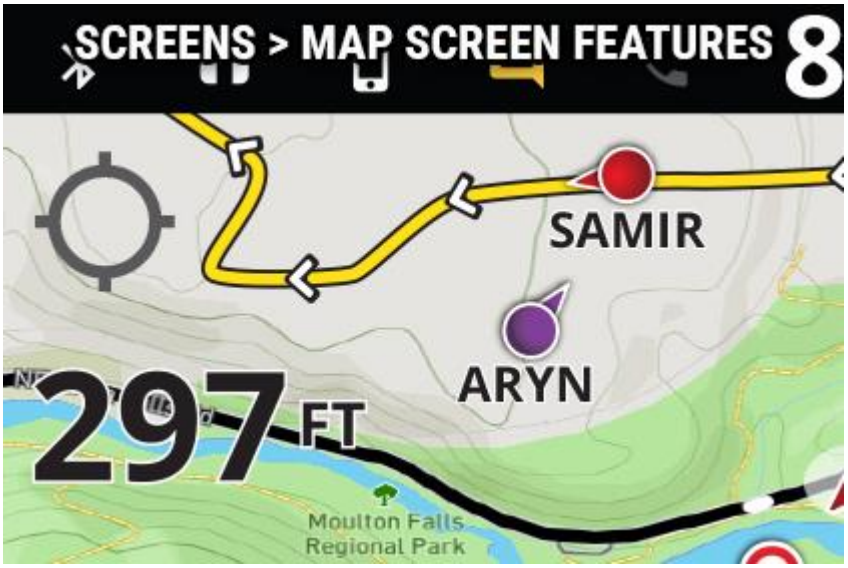
In supported regions, Voyager Pro4 Buddy Tracking can share locations with compatible Polaris Ride Command Group Ride systems.

Buddy Regions

Buddy Tracking radio frequencies are currently restricted from operating in Europe. Voyager Pro4 will function normally, except buddy tracking will be disabled when in that region. See the map below for active regions.

Buddy Tails Help

Buddy Tails shows a short recent trail behind each buddy marker on the map. This makes it easier to understand rider direction and recent movement at a glance.



Current software improves the reliability and accuracy of Buddy Tail history. If the map becomes crowded, adjust map layers or zoom level for a cleaner view.

Buddy Display Name Help

Your Buddy Tracking display name appears below your marker on other riders' screens. Choose a short, recognizable name for easier group identification.

Join Buddy Group Help

Voyager Pro4 scans the area for available buddy groups. If a group appears in the list, tap it to join.

Create Buddy Group Help

If no group exists, create one by entering a group name, selecting the group size, and tapping Create Group.

Smaller group sizes allow faster screen updates.

Buddy Beacon Help

When you activate Buddy Beacon, your marker flashes red on other riders' screens. Use it to draw immediate attention to your location within the group.

If a rider is out of V2V radio range, the beacon cannot update on that rider's screen until signal returns. Their display will continue to show your last known location until a new position is received.

Route to Buddy Beacon Help

When a rider has an active Buddy Beacon, you can set that rider as a destination and navigate toward the reported location. This provides a quick way to regroup or reach a stopped rider.

The displayed destination is based on the rider's latest reported position and will update as new buddy data is received.

Buddy Regions Help

Buddy Regions

Buddy Tracking radio frequencies are currently restricted from operating in Europe. Voyager Pro4 will function normally, except buddy tracking will be disabled when in that region. See the map below for active regions.

Map Options Help

In the map mini-menu, tap the Options icon to open map options. This menu includes Custom Maps for importing and managing map files, and Manage Storage for removing custom maps or base, topo, and hillshade data.

View modes include Perspective, Flat, North Up, Track Up, and Track-Up / Flat Offset. Track-Up / Flat Offset places your position lower on the screen to show more of the map ahead.

Display controls include Pan Lock, Map Colors, and an auto-hide option for the bottom menu bar. Points of Interest categories such as food, lodging, gas, and parking can be shown or hidden.

Additional toggles control topo lines, hill shading, distance ruler, latitude/longitude coordinates, zoom level, and Buddy Tails.

Map Gauges lets you select which two instruments are displayed overlaid on the map screen.

Manage Map Storage Help

The Manage Map Storage screen shows available storage memory and how it is being used. Each map type displays its file size and includes a trash can icon for removal.

The following map types are listed:
- Base Maps : Core map data used for navigation.
- Topo Maps : Elevation contour data.
- Hillshading Maps : Shaded relief layers for terrain detail.
- Custom Maps : Imported GeoPDF and MBTiles files.

Tap the trash can icon next to a map type to delete that data and free up storage space.

Note: Deleted maps are permanently removed from the device. To restore base, topo, or hillshading maps, download the map pack from trailtech.net and import it using a MicroSD card.

Map Colors Help

Customize the colors of tracks, routes and waypoints for the map screen.

Recorded Tracks

Recorded Tracks are the current tracks being recorded using the track logging features.

GPX Tracks

GPX Tracks are tracks that have been loaded into internal memory by loading a GPX file.

GPX Routes

GPX Routes are like GPX Tracks. They are called Routes to distinguish them from Tracks for ride planning. Simply put, you haven't ridden a Route yet, but you have ridden all the Tracks.

Waypoint Colors

Finally, you can change the default marker color for new waypoints. Later you can change waypoint colors individually by tapping it on the map screen to open the waypoint slideout menu.

Color Picker Help

Tap a swatch to select a new color. Press the back button to cancel.

User Screen Help

The user screen is customizable. You can choose 1-6 gauges from a long list of available readouts. Select fewer gauges to make the remaining ones larger.

While on the user screen, press the back button to choose different gauges.

Long-press a gauge to reset it, if applicable.

Choose Gauges Help

Tap each gauge position to bring up the list of available selections.

The top option is 'None.' Selecting nothing for a position will cause the other readouts to increase in size on the user screen.

To open this menu, navigate to the user screen and press the back button.

Media Screen Help

The media screen is the center for phone and headset interaction.

You can control the song playing on your phone, change headset volume levels, change the music source, and access phone dialing, call history and messaging features. The headset can control music pausing and can answer incoming calls.

Tap the Driver or Passenger headphone icon to mute the sound to that device. Press and hold the icon to open up a volume slider.

Music Source Help

Voyager Pro4 controls music playback, but it must know where to load the music from.

Open the music source menu by pressing the back button while on the media screen, or by tapping the media source icon on the media screen.

Choose between loading music from the phone or from the MicroSD card.

Driver Contacts Help

When a phone is paired to Voyager Pro4 as the "Driver's Phone," the contact list can be accessed.

To open the contact list for the driver's phone, tap the Contacts icon on the media screen.

Call History Help

When a phone is paired to Voyager Pro4 as the "Driver's Phone," the call history list can be accessed.

Dialer Help

When a phone is paired to Voyager Pro4 as the "Driver's Phone," calls can be placed using Voyager Pro4's onboard dial pad.

Open the dialer by tapping the Dialer icon the media screen.

Messages Help

When a phone is paired to Voyager Pro4 as the "Driver's Phone," the messages list can be accessed. For privacy, only messages that have occurred since pairing the phone will appear.

Open the messages list by pressing the Messages icon on the media screen.

Stop Watch Screen Help

The stop watch screen is a tool used as a simple timer, or as a lap timer.

Tap the large circle to begin counting. Tap it again to take note of the first lap off to the side and start timing a new lap.

Icons at the bottom can pause, resume, and reset the timer.

Satellite Screen Help

The satellite screen displays a graph of the sky and visible GPS satellites in orbit. The graph to the side shows the relative signal strength of each satellite.

Settings Help

The Settings Menu is where Voyager Pro4 is customized to your needs. You can access the settings menu from the main screens by pressing the menu button.

In the settings menu you can hide main screens, adjust the display sleep timers, customize the speed source, wheel size and alert thresholds, select different measurement units, connect Bluetooth devices, use the file and data utilities, and more.

Enable Screens Help

The main screens include Cluster, TachBar, Map, User, Media, Stopwatch, and GPS Satellites screens. Toggle to disable an individual screen from appearing in the scroll rotation. Customize the gauges shown on the User Screen in the Choose User Screen Gauges menu item.

When scrolling through screens, the screen name appears to signal the change. To disable the show screen title feature, toggle it.

Display Setup Help

The display setup screen controls the screen's backlight levels, the night mode theme, and the sleep timer.

Voyager Pro4 has an ambient light sensor. When it gets dark outside, night mode switches the map screen to a style that is easier to read at night.

Themes Help

Automatically switch between day-mode and night-mode map styles depending on how bright out it is. Or, manually choose a style and stick with it.

Sleep Help

Voyager Pro4 remains awake while connected to power, either from a vehicle or AC wall adapter.

The sleep and wake-detection settings can configure Voyager Pro4 to enter sleep mode when no tach signal or wheel sensor movement is detected.

If the wheel speed sensor is being used for wake-detection, Voyager Pro4 will wait an additional 3 minutes after stopping before entering sleep mode. This is to accommodate short pauses in movement, such as at a traffic light.

When in sleep mode, Voyager Pro4 will wake up as soon as it senses movement based on the wake-detection setting.

15 minutes after going into sleep mode, Voyager Pro4 will shut down completely to avoid drawing down the vehicle battery. After shutdown, press the power button to wake Voyager Pro4 again.

Vehicle Profile Help

Use the vehicle profile menu to customize Voyager Pro4 to the vehicle it is mounted on.

Set up the odometer and engine hours, and values to configure the wheel sensor, engine temperature sensor, tachometer sensor, and power sensor.

Wake Detection Help

When in sleep mode, Voyager Pro4 waits for a sign to wake up.

15 minutes after entering sleep mode, Voyager Pro4 will shut down completely; after a complete shut down, press the power button to wake up. When shut down Voyager Pro4 uses no power to preserve battery power.

1. If wired behind key switch power, Voyager Pro4 can wake from sleep mode whenever the vehicle is switched on.

2. If the ignition sensor is installed, Voyager Pro4 can wake from sleep mode when the spark plugs start firing.

3. If the wheel sensor is installed, Voyager Pro4 can wake from sleep mode as the wheel starts spinning.

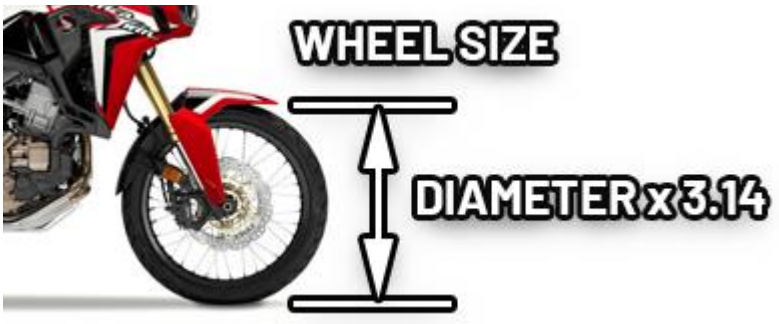
Speed Source Help

Choose which sensor to pull speed data from:

1. Installing a Trail Tech magnetic wheel sensor will return precision speed data.

2. GPS speed does not require an installed sensor, but may wander a little at slow speeds and in tight corners.

Remember to input an accurate wheel size for the speed gauges to be correct.

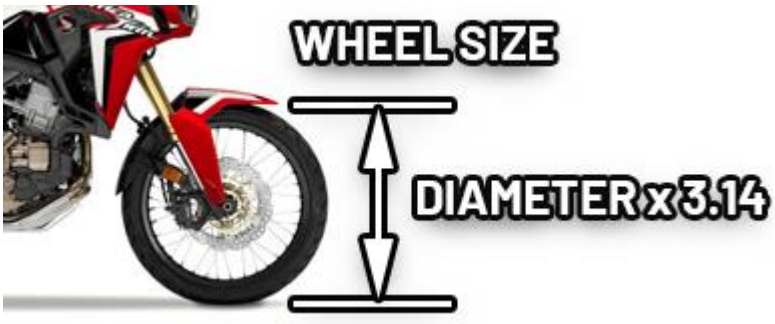


A speed readout is displayed on most of the main screens.

Wheel Size Help

Voyager Pro4 needs to know your wheel size to do precise speed measurements. (I.e. the magnetic wheel sensor reports how many times the wheel spins, but wheel size is needed to calculate how far the wheel travels per rotation.)

Do not panic. For more information on obtaining your wheel size, see #measure-wheel-size.



PPR Help

PPR stands for "Pulses Per Revolution." (I.e. the number of times the spark plug sparks each time the engine revolves.)

PPR controls the tachometer readout. If it seems like the tach is displaying a number either twice or half as fast as actual, then likely the PPR needs to be adjusted.

Most modern fuel-injected dirt bikes are 0.5 PPR.

Tach Sensitivity Help

The tach sensitivity setting changes the threshold that Voyager Pro4 recognizes tach pulses. Changing the sensitivity on some vehicles can help cut through ambient electrical noise.

If the tach signal is still erratic after adjusting sensitivity, during installation wrap the sensor more or less times, and avoid routing it along other electrical wires.

Tach Graph Max Scale Help

The tach graph screen and a big animated bar graph. The graph defaults to max out at 9000 RPM, but you should customize it to match the maximum RPM of your vehicle. This way you can get the full range of graph motion.

Use the tumblers to select the max value for the graph, then tap Ok to save the choice.

Charge Mode Help

Voyager Pro4 usually charges up its internal battery whenever it is connected to power. However, if Voyager Pro4 is wired directly to the vehicle battery (instead of behind a key switch) then the vehicle battery may be drained. In that case to avoid draining the vehicle battery, set Voyager Pro4 to only charge when the engine is running (i.e. a tach signal is active.)

Units Setup Help

Customize the measurement units displayed on the gauge screens. Choose between standard or metric readouts.

Speed & Distance Units Help

Choose to display speed in miles or kilometers per hour. This choice will take effect in all places where speed is displayed.

Elevation Units Help

Choose to display elevation in feet or meters. This choice will affect all elevation readouts.

Temperature Units Help

Choose to display temperature in Fahrenheit or Celsius. This choice will take effect in all temperature displays.

Date & Time Help

Set Voyager Pro4's internal clock to your local time.

The time does not automatically adjust itself if you travel to another time zone or for 'daylight saving time'.

Set Time of Day Help

Use the touchscreen tumblers to select your local time.

The time does not automatically change for daylight savings or for time zones.

To save the selection tap ok, or press the back button to cancel without saving.

Set Date Help

Use the touchscreen tumblers to select today's date.

To save the selection tap ok, or press the back button to cancel without saving.

Maps & GPS Setup Help

The maps and GPS setup menu lets you customize details of how track recording works.

Map Screen Actions are similar to the menu items found on the map screen's slideout bar.

The Autolog Source can pause track logging if the vehicle isn't moving.

Log frequency determines how often a new track point is logged to memory.

Auto-split will create a new track segment when there is a big gap between two points in the track (instead of drawing a long line between them.)

Autolog Source Help

The Autolog Source can pause track logging if the vehicle isn't moving. For instance, you don't want it to record when the bike is in the back of the truck, or parked at camp. Install a tach or wheel sensor so Voyager Pro4 knows exactly when the bike is in motion.

SETTINGS > MAPS & GPS > AUTO-LOG

Log Frequency Help

Log frequency determines how often a new track point is logged to memory. You can choose time based or distance based. The largest values are fine for most needs and keep the file sizes smaller.

SETTINGS > MAPS & GPS > FREQUENCY

Auto Split Help

Auto-split will create a new track segment when there is a big gap between two points in the track (instead of drawing a long line between them.)

Coordinate Format Help

Coordinate values can be displayed in a few different formats. The default is deg, min.dec.

Examples:

Degrees in decimal (deg.dec):
40.446° N
79.982° W

Degrees decimal minutes (deg, min.dec):
40° 26.767' N
79° 58.933' W

Degrees minutes seconds (deg, min, sec):
40° 26' 46" N
79° 58' 56" W

Bluetooth Settings Help

In Bluetooth settings, enable or disable Bluetooth altogether, change Voyager Pro4's public name, and then connect phones and headsets.

Two phones and two headsets can be connected.

Media Screen Actions opens menu options similar to the Media Screen's embedded options.

Bluetooth Devices Help

On the device pairing screens, Voyager Pro4 scans for nearby Bluetooth devices to connect with. After Voyager Pro4 finds the phone or headset, tap its name to pair them. Remember to put the phone or headset in pairing mode so that it will be visible to the scans.

Bluetooth Connection Help

A successfully paired device can be temporarily disconnected, or unpaired/forgotten entirely. A forgotten device takes longer to connect with next time than a device that was just disconnected.

Utilities Help

The File Browser lets you view the contents of the MicroSD card and import supported files.

The Software Update tool lets you choose an update file from the MicroSD card to update onboard software, maps, and themes.

System Information shows software versions plus internal voltage and core temperature readouts.

The Technician Area is intended for factory and service diagnostics.

File Browser Help

Using the file browser, you can view the contents of the MicroSD card.

Tap a JPG file to open the image viewer, then swipe or use the Up and Down buttons to move through images.

Import supported files directly from the MicroSD card, including GPX data and supported custom map formats such as GeoPDF and MBTiles.

Custom Maps Help

Voyager Pro4 can import supported custom map files directly from the MicroSD card, including GeoPDF and Raster MBTiles formats.

Custom maps are useful for event maps, land-use overlays, trail systems, and other specialized map sheets that are not part of the base map.

Multiple imported map sheets can be stored on the device. Enable only the files you need to keep the map screen clear and responsive.

Use short, descriptive file names on the MicroSD card to make selection easier in the file browser.

Software Update Help

Voyager Pro4 can update its own firmware, map data, and map styles from the MicroSD card.

A firmware update refreshes the user interface and operating software. Updates can add new features, improve compatibility, and correct issues.

A map data update installs maps for different regions or parts of the world. Maps are large and detailed, so the entire world cannot be loaded at once. Map data can include specialized layers such as hill shading, topo lines, POIs, and satellite imagery.

A map style update changes the appearance of the map screen.

After loading new map styles or map data, activate them from the map screen options.

Software updates are available at trailtech.net and are transferred to Voyager Pro4 by MicroSD card. The internal battery must be at least 50% charged before a software update can begin.

System Information Help

Included in the system information is a unique device production serial number and the running hardware and software versions.

The voltage and temperature reports should be used during installation and troubleshooting to assure that power is arriving to Voyager Pro4 as expected.

Technician Area Help

The Technician Area contains factory and service diagnostic tools and is not required for normal operation.

Contact Trail Tech Help

Still confused? You can contact Trail Tech support and we'll do our best to walk you through it.

Online instructions:

trailtech.net/instructions

Phone:

(844) 378-8143

Email:

technicalservice@apexproductgroup.com

Instagram and Facebook

On Instagram, get inspired by daily photographs about the powersports lifestyle from the Trail Tech library of riding adventures. Follow #ridetrailtech.

Warranty and FCC Help

Keep Your Info

If you call to request service for your digital gauge, you need the date of purchase, dealer's name, address, and telephone number. Warranty service requires proof of purchase.

Call before shipping to get an RMA (return merchandise authorization) number.

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 the dealer where the 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.*

FCC Notice / FCC Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which

the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

RF exposure statement:
This equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 23cm between the radiator and any part of your body.

The Voyager Pro allows system integrators to choose an appropriate antenna for their application. The Voyager pro exposes one RP-SMA connector for connecting an external antenna.

The Voyager Pro is authorized for use with a 900MHz antenna with a stated gain of up to 5 dBi. System integrators are responsible for ensuring that the gain of the selected antenna, in all directions, does not exceed those limits

Canadian Compliance Statement:

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada license-exempt RSS(s). Operation is subject to the following two conditions:
(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licencecontenudans le présentappareilestconformeaux CNRd'Innovation, Sciences et Développementéconomique Canada applicables aux appareils radio exempts de licence. L'exploitationestautorisée aux deux conditions suivantes :
1) L'appareil ne doit pas produire de brouillage;
2) L'appareildoitaccepter toutbrouillageradioélectriquesubi, mêmesi le brouillageest susceptible d'encompromettre le fonctionnement.

RF exposure statement:
This equipment meets the exemption from the routine evaluation limits in section 6 of RSS-102. It should be installed and operated with a minimum distance of 23cm between the radiator and any part of your body.
Cetéquipementestconforme à l'exemption des limitesd'évaluationhabituelle de la section 6 de la norme RSS-102. Il doitêtreinstallé et utilisé à une distance minimale de 23 cm entre le radiateur et toutepartie de votre corps.

Declaration of Conformity:

Supplier's Declaration of Conformity:
- 47 CFR § 2.1077 Compliance Information

Product Name:
- Voyager Pro4

Product Model:
- Voyager Pro4

Manufacturer:
- POLARIS INDUSTRIES INC
- 2100 Highway 55
- Medina, Minnesota 55340
- www.polaris.com

Modular Components Used:
- NAME : WiFi, Bluetooth, LE Module
- MODEL : WL1831MODGBMOCR
- FCC ID : Z64-WL18SBMOD

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.