



Towing Monitor System

Operators Manual

Model TTK 550

Portable Towing Monitor System

Read this Operator's Manual completely
before using the Towing Monitor System.



MADE IN THE USA



ONLY YOU CAN
PREVENT WILDFIRES

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FCC Information

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.

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: Any changes or modifications not expressly approved by **Tattle-Trail, LLC** could void the user's authority to operate the equipment.

To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between radiator and your body.

Medical: Consult the manufacturer of any personal medical devices, such as pacemakers or hearing aids, to determine if they are adequately shielded from external RF (radio frequency) energy. (This product operates in the frequency range of 2.405 GHz to 2.480 GHz).

Compliant with RSS-210

Tattle-Trail Monitoring System*

Introduction

The **Tattle-Trail** monitoring system is designed to sense the amount of vibration on vehicles towed behind a truck, RV or motor home. When monitored parameters on the towed unit exceed what the operator sets as normal, both audible and visual alarms are generated. Once notified, the operator can take action to prevent further property damage.

Depending on the sensitivity setting selected and the type of towed unit, **Tattle-Trail** may be able to detect increased vibration or shock levels. Some failures that might cause these increases are: tire tread separation, flat tire, loose lug nuts, broken suspension components and malfunction of hitch assembly. Additionally, if the "Sensitivity" knob is placed in the "Park" mode and the **Tattle-Trail** system is within communication range, theft detection can be sensed.

The portable TTK 550 **Tattle-Trail** system is not designed to be exposed to the elements. **Always ensure that this unit is installed inside both vehicles and not exposed to the weather.** If a water resistant "Transmitter" enclosure is required, **Tattle-Trail, LLC** offers a weather-hardened enclosure (Model TTK 650) designed for permanent mounting to a towed unit. Check www.Tattle-Trail.com for more details.

* Tattle-Trail is a trademark of Tattle-Trail LLC

Installation:

Transmitter

Tattle-Trail Model TTK 550 is a “plug and play” system that is highly portable and requires no user calibration.

To use, simply follow these instructions:

Remove the unit marked “Transmitter” from the carrying case and plug one of the power cords into the power input jack of the “Transmitter”. Locate a mounting area high, and in the center of the towed unit’s windshield (up near the mirror **but not obstructing driver’s vision**). Clean the mounting area with isopropyl alcohol. With the power cord facing down and forward, **moisten** the suction cups and firmly press the unit to the windshield (see Figure 1). **With the “Transmitter” mounted and the towed unit on level ground**, plug the male 12VDC power connector into a powered 12VDC receptacle in the towed unit. A flashing green “Link” light will illuminate indicating that the “Transmitter” has power and is self-calibrating. The “Link” light will quickly turn solid green indicating that the unit has calibrated and is transmitting data.

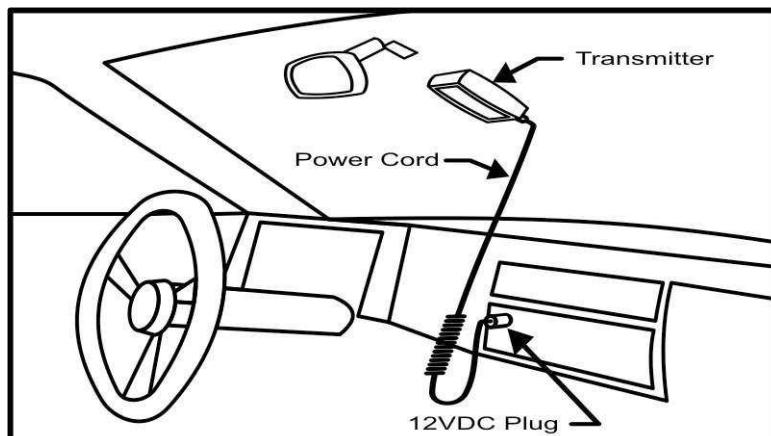


Figure 1: Towed Unit

➤ Note: During the flashing green calibration mode, minimize any motion in the towed unit.

⚠ **Warning: Both Tattle-Trail units are internally fused, but it is important to protect the wiring going to the unit by utilizing a fused power source.**

⚠ **Warning: Do not ever submerge either the “Transmitter” or “Receiver” in fluid.**

Once the “Transmitter” has calibrated, it tries to “Link” with the “Receiver”. After 10 minutes, if the “Receiver” is not turned “On”, the “Transmitter” will go into “sleep” mode to conserve power. Every 2 seconds, the “Transmitter” wakes up to look for a signal from the “Receiver”. If no “Link” is established, then the “Transmitter” returns to “sleep” mode.

Receiver

Remove the unit marked “Receiver” from the carrying case. Rotate the “Sensitivity” knob to the full counterclockwise (CCW) “OFF” position. With the towing vehicle parked, plug the second power cord into the power input jack of the “Receiver” and plug the male 12VDC power connector into a powered 12VDC receptacle in the towing vehicle. With the towed unit’s “Transmitter” powered up and calibrated, turn “ON” the “Receiver” and set the sensitivity knob to about 12 o-clock. Both the green “Link” light and the green “Alarm” light should be illuminated. If the “Transmitter” is in “sleep” mode it may take up to 10 seconds to wake up the “Transmitter” and clear the “Receiver” red “Link” alarm. Since dash configurations vary from vehicle to vehicle, hold the “Receiver” unit up to the dash in a mounting location that is convenient for the operator to reach. If the green “Link” light remains illuminated, attach the “Receiver” (with the Velcro supplied) to the selected location convenient for operation. If the red “Link” light comes on in this location, relocate the “Receiver” higher up on the dash and closer to a window, until a more favored position is achieved to receive

the communication signal from the "Transmitter". Mount the "Receiver" in this location with the Velcro provided. (See Figure 2.)

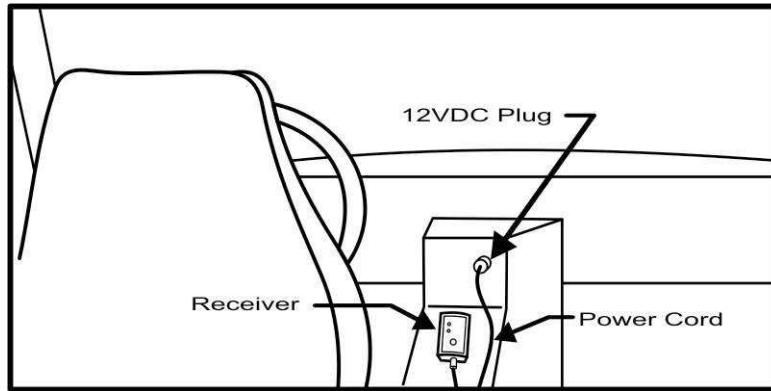


Figure 2: Towing Vehicle

Operation Instructions

With the "Transmitter" powered up and calibrated in the towed unit, bring the towing vehicle up to normal operating speed. Once at desired speed, turn the "Sensitivity" knob clockwise (CW) until the knob just clicks "ON". The "Receiver" will beep briefly to indicate power has been applied. Once communication has been established between the "Transmitter" and "Receiver" (indicated by a green "Link" light on the "Receiver"), the red "Alarm" light will illuminate and a rapid beeping audible alarm will sound at a progressively faster and louder rate. To silence the audible alarm and establish a baseline alarm threshold for the **Tattle-Trail** system, slowly rotate the "Sensitivity" knob further (CW) until the audible alarm and its associated red "Alarm" light **just turn off**. At this setting, you have established a new baseline for monitoring the towed unit. Any change in the towed unit's vibration level that exceeds this operator-selected baseline will result in an audible beep and a flashing red "Alarm" light. If the out of tolerance condition persists, the intensity and frequency of the audible alarm will increase. If the alarm elevates to the rapid beeping audible mode, the driver should immediately stop the vehicle in a safe area and inspect the towed unit to determine what has caused the alarm condition. During normal driving, single beeps may sound indicating that the towed unit has experienced a rapid change in

movement, often as a result of hitting a pothole or other variation in the road surface. These are normal, but do give an indication of the abuse that the towed unit's tires and suspension may be receiving. However, if a beeping alarm sounds repeatedly on acceleration, deceleration or cornering with no apparent road variations, pull to a stop in a safe area and check the integrity of the hitch assembly. Beeping alarms occurring only during deceleration may be the result of the towed unit's brakes being applied with too much force. The alarm set point for **Tattle-Trail** can be adjusted while driving to accommodate for variable road conditions. Simply rotate the sensitivity knob (CCW) until the rapid beeping audible alarm sounds, then rotate the knob (CW) till the audible alarm and its associated red "Alarm" light **just turn off**. A new alarm threshold has now been established. Further rotation of the sensitivity knob (CW) will raise the baseline alarm threshold limit and minimize the sensitivity of **Tattle-Trail** to abnormal conditions. Conversely, (CCW) rotation will lower the baseline alarm threshold and make the system more sensitive to abnormal vibration input. After using **Tattle-Trail** for a brief period, the operator will gain a feel for the appropriate level of sensitivity required for various road conditions and type of towed unit. If the "Transmitter" becomes detached from the towed unit's windshield during normal operation, a rapid beeping audible, a yellow "Link" light and yellow "Alarm" light will occur (Fall-off alarm). The **Tattle-Trail** is no longer monitoring for vibration. The driver should stop the vehicle in a safe area at the earliest opportunity and remount the "Transmitter" on the towed unit's windshield. Remove and reinstall the male 12VDC power connector to recalibrate the "Transmitter".

- Note: **Tattle-Trail** is designed for use only on paved surfaces.
- Note: Check that the "Transmitter" is securely mounted to the windshield of the towed unit prior to beginning travel.
- Note: Loud noises caused by motorcycles or audio subwoofers may cause transient **Tattle-Trail** alarms.
- Note: **Tattle-Trail** does not replace the need for following all safe trailing procedures such as: checking all tires pressures, hitch and ball assembly, safety

chains, etc. Additionally, Tattle-Trail should not be used as the sole indicator of the status of a towed unit, but rather should be used as a supplemental device in combination with all other safety checks and indicators to monitor for changes in normal operating conditions of your towed unit. It is always the obligation of the operator to set a baseline alarm vibration threshold that the operator deems appropriate for the current road conditions and towed unit.



Warning: Due to the fact that the operator can select within a broad range of alarm sensitivity thresholds, it is possible that not all traile vehicle failures will result in an increase in vibration above the alarm threshold. Do not assume that no Tattle-Trail alarm always equals no problems with the towed unit. But, do assume that if Tattle-Trail reaches an elevated state of alarm, the towed unit may have a problem that needs immediate attention.

Battery Monitor (towed unit)

During normal operation the battery voltage on the towed unit is continuously monitored by **Tattle-Trail**. If the voltage drops below the minimum threshold, a solid yellow "Alarm" light will illuminate on the "Receiver" until the towed unit's low battery condition is corrected. Additionally, a three beep audible alarm will sound every twenty seconds for the first minute of the low battery alarm condition. In the "Park" mode, if the towed unit's battery drops below the minimum threshold, a solid yellow "Alarm" light will illuminate on the "Receiver" until the towed unit low battery condition is corrected, but no audible alarm will sound. In the low battery alarm condition, the **Tattle-Trail** system will still be actively monitoring the towed unit. The low battery condition in the towed unit should be corrected at the earliest opportunity.

"Park" Monitor

The "Park" monitoring function can be enabled when both vehicles are parked and stationary. With the towed unit's "Transmitter" powered and the "Receiver" turned "On" in the towing vehicle, turn the "Sensitivity" knob full (CW) to the "Park" setting. The audible alarm will sound a single beep and the "Alarm" light will rapidly flash yellow while the unit determines the current position of the parked unit. Once the position is determined, the **Tattle-Trail** "Receiver" will store it in memory and dim the indicator lights. A slow flashing green "Alarm" light will confirm that the towed unit is being monitored for movement.

If motion of the towed unit is detected, a red "Alarm" light will illuminate and a rapid beeping audible alarm will sound for 1 minute on the "Receiver". To clear the "Park" alarm, rotate the knob (CCW) until the audible and visual alarms clear. Additionally, if the "Transmitter" is moved out of communication range (towed unit stolen), the "Receiver" audible alarm will sound continuously for a period of 30 seconds. As long as the "Transmitter" remains out of range, the red "Link" light will stay illuminated.

- Note: If there is significant distance or solid objects between the **Tattle-Trail** "Transmitter" and "Receiver", it is possible that other portable wireless devices can interfere with the **Tattle-Trail** wireless link. Therefore, when using the "Park" mode, it is always best to park the towed unit in a "line of sight" position as near to the "Receiver" as possible and where vehicle traffic does not pass between the "Transmitter" and "Receiver".
- Note: Some state laws require removal of windshield mounted devices before driving the vehicle.

Receiver Alarm Codes

LED 1 (Link)	LED 2 (Alarm)	Audible	State / Condition	Corrective Action
NONE	NONE	NONE	No power to Receiver	Receiver needs to be plugged into 12VDC.
R	NONE	1/2 sec. Chirp at start-up / Solid audible for 30 sec.	No communication Link to Receiver from Transmitter 1. Transmitter not plugged into 12VDC. 2. Transmitter out of range. 3. Transmitter plugged in but not operational.	1. Plug Transmitter into 12VDC 2. Relocate Transmitter closer to the Receiver. 3. If communication cannot be established, return both units for service.
G	G Flashing	NONE	Receiver and Transmitter are both powered and communicating, but Transmitter is in the process of calibrating.	No action required, but during calibration do not move or create any motion in the Transmitting towed unit.
G	R	Solid Audible	Receiver and Transmitter are both powered and communication Link established, but the Transmitter has not been able to calibrate for 2 minutes.	1. Make sure that Transmitter is stationary. 2. Remove transmitter from 12VDC source and then reconnect to 12VDC. If Transmitter still does not calibrate, return both units for service.
G	R Flashing	Rapid Audible	Receiver and Transmitter are both powered and communication Link established, but the alarm threshold controlled by the sensitivity knob is set below the alarm threshold.	For initial setting with vehicle moving at normal speed, slowly rotate the sensitivity adjust knob (CW) until the audible and visual alarms are just turn off. At this setting, the system is actively monitoring the towed unit and occasional short alarm beeps may occur. 1. If moving and system goes into alarm safely stop vehicle and inspect towed unit for cause of alarm. 2. If road conditions have changed and you are sure that nothing is wrong with the towed unit, then with vehicle moving at normal speed, readjust the sensitivity knob CW until the alarm just turns off.
G	G	NONE	Receiver and Transmitter are both powered and communication Link established. Additionally, the sensitivity knob is set above the alarm threshold.	No action required. System is actively monitoring at the selected sensitivity.
G	Y Rapid Flashing	NONE	Park mode in calibration	No action required, but during calibration do not move or create any movement in the towed unit.
G	G Slow Flashing	NONE	Park mode with no alarm	No action required. System is actively monitoring the towed unit for movement in the Park mode.
G	R Rapid Flashing	Rapid Audible for 1 min.	Park mode in alarm	Park mode alarm. Take necessary precautions to protect your trailed unit.
Y	Y	Rapid Audible	Transmitter has fallen off windshield while trailing	1. Remove transmitter power 2. Reinstall transmitter on windshield 3. Plug in transmitter
G	Y	3 Beep / 20 sec	Transmitter battery voltage low	Charge towed unit battery

G = green

R = red

Y = yellow

Trouble Shooting Guide

Transmitter

“Link” light: off	Check power.
“Link” light: flashing green (for more than 10 seconds)	Calibrating, but transmitter movement detected. <i>Stop movement.</i>
“Link” light: solid red	Cannot calibrate. Movement detected for over 2 minutes.
“Link” light: solid yellow	Transmitter battery voltage low.
“Link” light: blinking green (once every 5 sec.)	Transmitter in “sleep” mode.

Receiver

“Link” light: off “Alarm” light: ... off	Check power
“Link” light: solid red “Alarm” light: ... off	Check transmitter power, or transmitter out of range
“Link” light: solid green “Alarm” light: ... solid yellow	Transmitter battery voltage low
“Link” light: solid green “Alarm” light: ... solid red	The transmitter can not calibrate due to movement
“Link” light: solid green “Alarm” light: flashing red	The alarm threshold has been exceeded
“Link” light: solid yellow “Alarm” light: solid yellow	Check to see if the transmitter has fallen off the towed unit’s windshield.

If, during the operation of the **Tattle-Trail** system, the system does not perform as indicated in this manual, **disconnect and reconnect both power plugs to reset the system**. If problems persist, call the service center (open 9am to 5pm EST) at **727- 230-9438**. The service personnel will help diagnose your problem and suggest a corrective action.

Warranty

One Year Limited Warranty:

Subject to limitations and exclusions set forth in this Limited Warranty, the **Tattle-Trail** system is warranted by the manufacturer against defects in material or workmanship that results in product failure during the one-year period following the date of purchase. **This Limited Warranty applies to original purchaser, only if the attached Warranty Card has been completely filled out, signed and mailed within 30 days of original purchase. Always retain a copy of the original bill of sale to be submitted with any warranty claims.** This warranty cannot be assigned, transferred or conveyed to any subsequent users.

Exclusions from coverage:

This Warranty does not apply to any claims arising from misuse, abuse, unauthorized repair or alteration, circumstances where the **Tattle-Trail** system is improperly installed or improperly wired contrary to **Tattle-Trail** product instructions, damage or defect attributable to weather exposure, fire, or other casualty, including, without limitation, acts of God or exposure to abrasive or corrosive materials, or liquids, or attributed to collision or other accidents involving vehicles upon which **Tattle-Trail** is installed. Additionally, this product warranty is automatically void if the device's serial number is defaced or if the "Transmitter" or "Receiver" cases have been opened or fasteners tampered with.

Limitations:

The manufacturer expressly limits the applicability of the implied warranty of merchantability, the implied warranty of fitness for a particular purpose and warranty of non-infringement of intellectual property to the one-year warranty period as provided in this limited warranty. To the extent permitted by state law, the remedy of repair or replacement is the sole remedy available to the end user under this Limited Warranty. In no event shall Tattle-Trail, LLC be liable for any direct, indirect, incidental, special, exemplary, punitive or consequential damages of any nature whatsoever, including, without limitation, any such damages for loss of property, time, profits, earnings, commercial loss, loss of economic opportunity, loss of equipment use or other intangible or tangible damages. Additionally, although the **Tattle-Trail** system may be used as a possible theft deterrent, Tattle-Trail, LLC is not offering a guarantee or insurance against vandalism damage or theft of any vehicle, its parts or contents and hereby expressly disclaims any liability whatsoever, including without limitation, liability for theft, damage and /or vandalism. Tattle-Trail, LLC does not and has not authorized any person or entity to create for it any other promise, duty, liability or obligation in connection with this product. Under all circumstances, Tattle-Trail, LLC's liability for the **Tattle-Trail** system will not exceed the purchase price paid for the product.

Notice:

Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Exclusive Agreement:

To the extent permitted by state law, this one-year Limited Warranty is a complete and exclusive statement of the warranties, which apply to the **Tattle-Trail** system; there are no expressed or implied warranties beyond those expressly stated above. No employee, agent, dealer or other person is authorized to give any warranties on behalf of the Seller, except as authorized in writing by Tattle-Trail, LLC.

Statute of limitations:

To the extent permitted by state law, in purchasing the **Tattle-Trail** system, the consumer agrees that any action for breach of contract or warranty must be commenced within one year after the cause of the action has occurred and the consumer agrees and consents that all disputes between the consumer and Tattle-Trail, LLC shall be resolved in Pinellas County, Florida. Florida state laws and applicable Federal laws shall apply and govern the dispute.

Return procedure:

Within the limits of this Warranty, inoperative units should be returned to the address listed on the following page, transportation prepaid, to be repaired or replaced at Seller's option, with no charge to sender as long as the sender had filled out and returned the attached Warranty card within 30 days of original purchase. Sender is responsible for all costs incurred in the removal or reinstallation and shipping of the unit returned for repair or replacement. A copy of the sales slip must accompany units returned to the manufacturer. Before returning the unit, call Tattle-Trail, LLC at **727-230-9438** for a return authorization number. For tracking purposes, please include the return authorization number on the address label.

Use this address if sending by US Mail:

Send to: **Tattle-Trail, LLC**
7887 Bryan Dairy Road
Suite 220
Largo, FL. 33777

Returned goods authorization # _____

Use this address if sending by UPS or Fed Ex:

Send to: **Tattle-Trail, LLC**
7887 Bryan Dairy Road
Building 200, Suite 100
Largo, FL. 33777

Returned goods authorization # _____

Please fill out, sign and return warranty card below:

WARRANTY CARD - TTK 550

One Year Limited Warranty: The Tattle-Trail device is subject to limitations and exclusions set forth in the Limited Warranty section of the Tattle-Trail Operators Manual. This warranty will only be activated if this Warranty Card is completely filled out, signed by the original purchaser and mailed with 30 days of original purchase.

Serial No. _____	Date purchased _____	City: _____	State: _____	Zip: _____
Purchased from: _____				
Where did you learn about Tattle-Trail? Dealer <input type="checkbox"/> Web site <input type="checkbox"/> Trade Show <input type="checkbox"/> Ad <input type="checkbox"/> Chat room <input type="checkbox"/> Which one? _____				
Type of tow vehicle? Car <input type="checkbox"/> Truck <input type="checkbox"/> Motorhome <input type="checkbox"/> Type of towed unit? Car <input type="checkbox"/> Cargo trailer <input type="checkbox"/> Horse trailer <input type="checkbox"/> 5th wheel RV <input type="checkbox"/> Camper <input type="checkbox"/>				
Number of axles on towed unit? 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> I have completely read the Tattle-Trail Operators Manual and fully understand how to install and operate this device. Furthermore, I understand that the Tattle-Trail system may not detect every failure on a towed unit and I am not to rely solely on this device to monitor for problems occurring on towed units. Due to variability in towed units and the operator selectable alarm point, Tattle-Trail makes no claims expressed or implied to the absolute performance of this product.				
If for any reason, you do not clearly understand how to install the Tattle-Trail system or have any questions regarding the operation and/or specific warnings defined in the Operators Manual, contact Tattle-Trail LLC at 727-230-9438 to clarify any questions, before using the Tattle-Trail system and signing this document.				
Date: _____ Signature: _____				

Cut Out and Mail in Envelope

Tattle Trail Accessories

(Note: Only use Tattle-Trail approved accessories.)

TTA 100	Hard Wired "Receiver" Power Cord For permanent installation of "Receiver" in tow vehicle
TTA 110	12VDC Female Receptacle (panel mount) For DC power connection of portable "Transmitter"
TTA 120	120VAC to 12VDC Female Power Adapter Remote power for portable "Receiver" from 120VAC outlet
TTA 130	12VDC Male to Female 6 foot Extension Cord For adding length to "Transmitter" or "Receiver" power cord
TTA 140	12VDC Adapter, 2 Female to 1 Male Add additional DC power connection
TTA 150	Replacement 12 VDC Power Cord Replace damaged or lost power cord
TTA 160	Replacement Suction Cup Kit Replace damaged suction cups

Cut Out and Mail in Envelope

Tattle-Trail LLC
 7887 Bryan Dairy Rd.
 Suite 220
 Largo, FL 33777- 1443

Attn: Warranty Department