TIREMINDER®

A1AS

Operating Manual

Kit Contents

- 1 TireMinder® A1AS Monitor
- 4, 6, or 10 TireMinder Transmitters
- 1 Rhino Signal Booster
- 1 Micro USB Cable and DC Adapter
- 8, 12, or 20 CR1632 Batteries (1 Extra Set)
- 4, 6, or 10 O-Rings (Extra)
- 4, 6, or 10 Locking Nuts
- 1 Locking Wrench with Valve Core Tool
- 1 Magnetic Mounting Bracket
- 1 “Carry-All” Pouch
- 1 TireMinder A1AS Manual
- 1 Warranty Card

Congratulations, you've done your homework and decided on the best TPMS on the market (MotorHome and Trailer Life Magazine's "Reader's Choice" GOLD award 8 years in a row!). If you have read any "User Comments" on various web sites, you will know that it's not just the product that got us the awards. Minder has outstanding customer service. Call or write. You'll quickly become a believer. *-The Minder Team*

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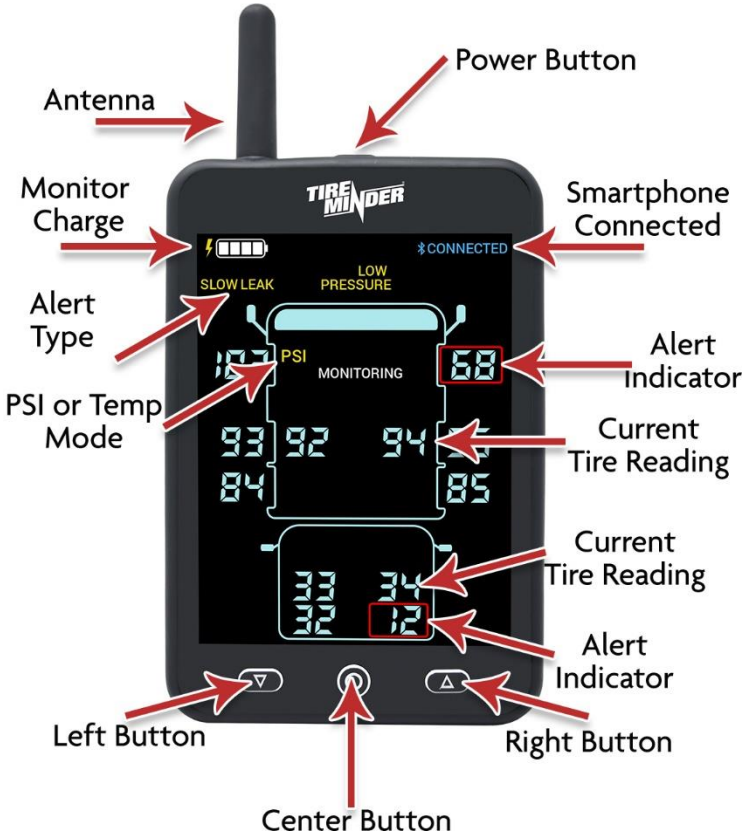
If you need help, we are available Monday to Friday, 9:00am to 5:00pm Eastern Time.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General Overview TireMinder® A1AS

The TireMinder A1AS Tire Pressure Monitoring System (TPMS) allows for constant monitoring of a vehicle's Tire Pressure & Temperature. This system can receive wireless information from up to 22 wheels, as well as swap between 8 different vehicles using the TireMinder 2.0 Smartphone App. Various levels of warnings are issued for pressure changes (under, over and leaking), high temperatures and signal loss.

We realize people rarely read instructions. The A1AS is a highly sophisticated product which requires customized programming and understanding.

YOU NEED TO READ THIS BOOK!!

Whether you have installed this system or have had a dealer or friend install it for you, it is imperative that you read this book in its entirety.

You need to understand how the system works, so you can have peace of mind and **"Be Safe on the Road™".**

If you have questions or need help, check our web site for installation and operating videos. Of course, you may always write (email) or call us. Above all, keep this book. We guarantee you, you will need it.

Table of Contents

Initial Setup

Prior to starting the initial setup, charge the A1AS using the supplied charging block and USB cable. This charger can utilize both AC (110V) and DC (12V) charging, so choose a convent outlet to plug it in, allowing the A1AS to charge while you're completing steps 1 to 3.

Step 1: The first step in setting up your A1AS is to connect the included signal booster to a 12V or 24V power source. As this unit is designed for RVs ranging from Travel Trailers to Class A MotorHomes, please read the specific instructions that are included in the booster's packaging or see page 7. Please note, while the booster will increase the transmitting range, it is primarily designed to eliminate signal interference. Due to this crucial function, **THE BOOSTER MUST BE INSTALLED**.

Step 2: After installing the booster, insert the CR1632 coin cell batteries into each transmitter. To install, remove the battery from its packaging, unscrew the transmitter's black cap counterclockwise, and insert the battery into the transmitter's battery bracket with the smooth side (+) up.

Step 3: Once each transmitter has a CR1632 battery installed, turn on the A1AS monitor. You should see an image like the one on the left. Once the monitor is on, you should see **MONITORING** in the center of the display. What this means is that you are currently in Monitoring Mode and the A1AS is actively monitoring for tire issues. In order to receive alerts, you must be in Monitoring Mode.

Setting up the A1AS – Learn Mode

We're now ready to program, or what we like to call Learn, each transmitter to a tire position. Please see the steps below to Learn each transmitter:

Step 1: From Monitoring Mode, press and hold the left and right buttons for 5 seconds until you see **LEARN** in the center of the display. See the image to the right? That's how your display should look right now.

Step 2: On the top left, you should see "- -" flashing. This is the current tire position. The top left tire position can be used as the driver's front tire of your vehicle. Alternatively, you can use the left or right buttons to move the current tire position to anyone of the 22 available positions. Once you have chosen the first tire position you would like to **Learn**, proceed to Step 3.

Step 3: With the desired tire position flashing, screw a transmitter onto your vehicles' corresponding tire position. Within 15 seconds, you should hear a beep and see the current PSI.

Step 4: Continue to use the left or right buttons to select the next tire position you wish to learn. Once at the next desired tire position, screw a transmitter onto that corresponding tire position. Again, within 5 seconds you will hear a beep and see the tire's current PSI.

Learned a transmitter to the wrong position? See page 15.

Step 5: Repeat Step 4 until all tire transmitters have been learned to the monitoring. Once complete, press and hold the left and right buttons for 5 seconds until you see **MONITORING** on the display.

Setting up the A1AS – Baseline Mode

You're now at the home stretch! The last part of setting up your TireMinder A1AS is informing the monitor what tire pressures you're currently running.

Step 1: From Monitoring Mode, press and hold the center button for 5 seconds until you see **BASELINE** in the center of the display.

Step 2: PSI should now be flashing on your display. You may press and release the right or left buttons to toggle between PSI (Pounds per square inch) and Bar (Barometric Pressure). Pressing and releasing the center button will move you to °F. With °F flashing, you may press and release the right or left button to toggle between °F (Fahrenheit) or °C (Celsius).

Step 3: Once you have selected your desired units of measurement, press and release the center button. You will now see your first tire position blinking.

Step 4: While the tire position is blinking, you may use the right or left buttons to raise or lower the tire pressure, respectively. Use these buttons to set the appropriate (or cold) baseline tire pressure for your vehicle. Once set, press and release the center button to move to the next tire.

Step 5: Repeat Step 4 until you have set each tire's appropriate tire pressure. Once complete, press and hold the center button for 5 seconds until you see MONITORING in the center of the display.

Questions about appropriate or cold tire pressure? See page 9.

Setup Complete

Your TireMinder A1AS is now fully setup! From here, you can take full advantage of the tire protection and peace of mind that your new TireMinder system can provide. However, we strongly recommend that you read the rest of this book. It may seem like quite a bit of pages, but it's written to be enjoyable, not a galaxy far far away enjoyable, but full of helpful TPMS and safety information.

Jokes aside, please read this book. This monitor is our most advanced unit available. We want you to feel comfortable and enjoy using it. So please take the next 30 minutes to an hour and read the rest of this book.

On a side note, a big plus of reading this book is bragging to your friends that you are now a TPMS expert!*

*We claim no guarantee that the above statement is factual. But you will still learn a ton!

Alerts – How the TireMinder TPMS Alerts Work

The main function of a tire pressure monitoring system (TPMS) is to alert when a tire issue occurs. Your TireMinder A1AS will check for the following tire issues every 6 seconds:

1. **Rapid Leak** - Pressure loss of 3 PSI or more in less than 2 minutes.
2. **Slow Leak** - Pressure loss of 6 PSI or more in 2 to 10 minutes.
3. **Low Pressure** - Pressure loss of 15% or more of the baseline pressure.
4. **High Pressure** - Pressure increase of 20% or more of the baseline pressure.
5. **High Temperature** - Internal tire temperature of 167°F (75°C) or greater.

In the event of a tire issue, the appropriate alert will be displayed on the top of the screen and tire position with the issue will be circled in red. Also, the monitor will start to beep and a red light will be displayed on the top of the monitor. If multiple alerts occur, use the right or left buttons to toggle between alerts.

Alerts – What to Do If an Alert Occurs

If you receive a **leaking alert**, please note how much air is left in your tire. If you are running 100psi (normal) and the alert has come on at 85 psi, you may decide to drive to the next rest stop. If the pressure drops significantly or more rapidly, cautiously bring the vehicle to a safe, off-road location to check the offending tire. Alternatively, if you run 100 PSI and the alert has come on at 104 psi, continue to monitor that tire position to make sure the pressure does not continue to drop. Some leaking alerts occur when the tire pressure increases rapidly, then rapidly decreases. What can cause this? Road debris, pot hole, or several "bumps in the road".

If you receive a **low pressure alert**, just as with leaking, note how much air is left in your tire. If the tire is dangerously low, or at 0 psi, find a safe place to pull the vehicle over and check the offending tire.

If you receive a **high pressure alert**, cautiously bring the vehicle to a stop at a safe location and check the offending tire. If the high pressure is "within reason" you may need to adjust your baseline pressures. Not sure what to do, call us!

If you receive a **high temperature alert**, cautiously "get off the road" & determine the cause of the overheating. In most cases, this will be due to a brake caliper that is sticking or a bearing which has overheated.

The TireMinder Hard Wired Booster

In today's world, the TireMinder signal booster helps our 433MHz transmitters avoid signal interference from the ever more prevalent wireless devices. As we all know, you can't throw a stone anymore without hitting a wireless device. This creates a lot of electronic noise, which limits the potential range of other devices operating in the same vicinity. This is why **the booster is crucial** for operating a tire pressure monitoring system on a multi-wheel vehicle (RVs, 5th Wheels, MotorHomes, Motor Coaches, Boat Trailers, Travel Trailers, etc.).

Installing the TireMinder Booster

As the booster is fully weatherproof, the best location is on the undercarriage. For MotorHomes and Coaches, the booster must be located on the undercarriage behind the rear or tag axle. For trailers, place the booster near the front of the trailer, on the exterior, such as the king pin or undercarriage.

Once you have chosen a good location, connect the booster's red (positive: +) and black (negative: -) wires to a 12v or 24v power supply line. Please mount the booster as securely as possible to minimize vibration. You may use the provided wire ties to secure the booster and wires. **If you have any uncertainty, please contact your local RV dealer for help on the installation.**

Booster Installation Continued

For most vehicles, the easiest way to provide power to the booster is attaching the wires directly to a 12V or 24V battery. You may also wish to change out the alligator clips for a ring terminal connector for a more permanent connection. If you have a MotorHome or Coach that does not have a battery located towards the rear, the booster can be connected to the 12V terminal of the generator.

Baseline Pressures and Tire Safety

A baseline tire pressure is the recommended tire pressure, cold. In other words, it's the tire pressure before your tires start rolling down the road.

There are two places which will give you an idea of what your tire pressures should be. The first is the permanently mounted placard containing max tire pressures, max load information, etc. This placard is similar to the one located on the driver's side door jamb of most cars and trucks. The location of this placard will vary. The second is the max tire pressure located on the sidewall of your tire. It is very important that the cold tire pressure of your tire does not exceed the max tire pressure located on the side wall.

Another important factor in tire safety is weight. Tire pressures are greatly affected by weight! With the different load ratings, such as E, G, etc, tire pressure may increase at a faster rate, depending on the load rating of your tire. If you notice that your tire pressures are rapidly increasing, it is recommended that you weigh your RV and take into consideration the max load of your tires. It is also crucial to understand that even if your RV is under the max weight, it may not be loaded evenly. For example, if a double-axle travel trailer tire has a max load rating of 3,500 lbs., and the total weight of the travel trailer, loaded, is 12,00 lbs., it is still possible that one tire may be overloaded, depending on the disbursement of weight.

A great resource for tire inflation and load is the manufacturer of your tire. Each tire manufacturer provides load and inflation charts for ST (Special Trailer), LT (Light Truck), HD (Heavy Duty) or RV tires, located on their website.

The best way to know exactly what pressures to run is by having your vehicle professionally weighed. There are many excellent resources providing this service such as the RVSEF (www.RVSafety.com), as well as Escapees RV Club (www.escapees.com).

Multiple Wheel Layouts

The A1AS has the ability to display up to 22 tires, simultaneously. As it is unlikely you will use all 22 positions, below you will find some recommendations of where to add tire positions. Ultimately, it is up to you to decide how you would like the A1AS to look. So have fun with it!

MotorHome and Tow Car
10 Tires

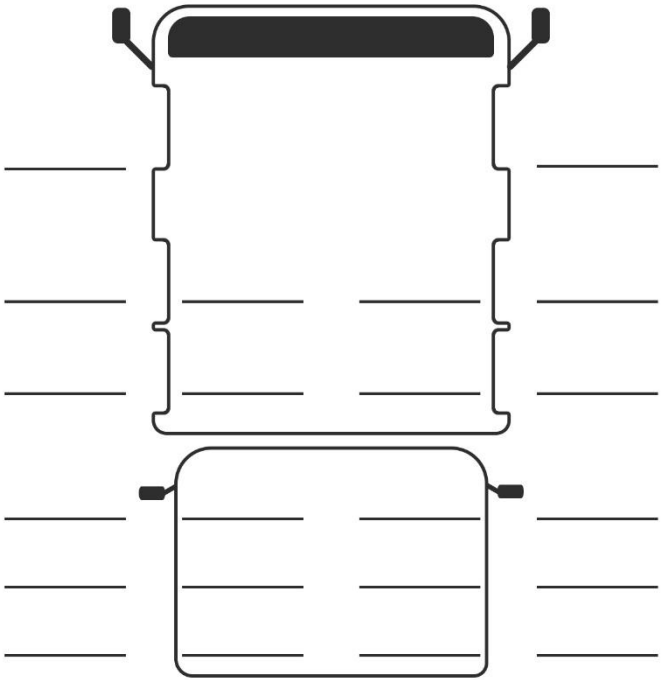
5TH Wheel
4 Tires

Motor Coach with Tag and Tow
12 Tires

Dually Truck and 5TH Wheel
10 Tires

Baseline Pressure Layout

Highlight where you want the transmitter (layout) for your tires. Write the baseline PSI required for each tire.



Disconnecting and Reconnecting Vehicles

The TireMinder A1AS monitor can disconnect or reconnect the top and bottom section of the monitor. For instance, if you have a Class A MotorHome and sometimes tow a car, you can quickly disconnect the car when it's not being towed. To do so, please use the following directions:

1. From **MONITORING** Mode, press and hold the left and center buttons for 5 seconds, until you hear a beep.
2. After the beep, you will see **DISCONNECT** in the center of the display. You will also see the top section of the monitor flashing, along with a number at the very top. The flashing section represents the currently selected section.
3. From here, pressing and releasing the right button will hide the top section, disconnecting that section.
4. To move to the bottom section, press and release the center button. If you wish to disconnect this section, press and release the right button. Once pressed, the bottom section will disappear, disconnecting that section.
5. Once the desired section is disconnected, exit **DISCONNECT** Mode by pressing and holding the left and center buttons for 5 seconds, until you hear a beep. You will then be back in **MONITORING** Mode.

If you ever need to reconnect a vehicle, go back into **DISCONNECT** Mode and choose the appropriate section and vehicle you desire using the center button. At the appropriate section, use the right button to reconnect the section. Once, complete return to **MONITORING** mode by pressing the left and center buttons for 5 seconds until you hear a beep and see **MONITORING** in the top center of the display.

Have a question about swapping and disconnecting vehicles? Please visit www.MinderResearch.com/A1AS for instructional videos. You may also give us a call and we can walk you through the process.

Auto-Search Mode

This mode is really cool! It all happens while in **MONITORING** mode and can only be used after all transmitters have been installed. When implemented, all current pressures will go to 0 PSI and the temperatures reset to 32°F.

The monitor will then automatically search for updated pressures and temperatures from all tires. All should be recovered within 20 minutes.

When to use this mode:

- After the rig has been in storage.
- If you see "Signal Loss" on the monitor.
- If you feel one or more positions are not updating.
- In the morning before getting back on the road as the monitor may still show yesterday's information.

Quick-Tip: The auto-search function will not work if the monitor is close to requiring a re-charge.

Here's how:

1. Press and hold the **center and Right buttons** for 3- 5 seconds.
2. You will hear a double "beep". All wheel position circles will reset with the pressures showing 0 PSI. The temperatures will all be reset at 32°F (*or 0°C*).

Updated pressures and temperatures will not all appear at the same time (be patient). If after 20 minutes, the monitor does not receive an update from one or more transmitters, the unit will beep several times and the missing position will flash and show "Signal Loss".

"Starting Over" Full Delete Mode

When implemented, this will delete transmitter codes from all transmitters that had been mounted. It is activated from the **LEARN** Mode. When complete, all 22 tire positions will be empty, displaying "- -".

When to delete:

- If you think you've screwed up the installation and want to start over.
- If someone has removed all the transmitters and you don't know which goes where.
- If you are making a major change in RVs and the wheel positions need to be moved (*5th wheel to coach or reverse*).
- You've got nothing better to do and just want to re-install the system!

Here's how:

1. From **MONITORING** Mode, press and hold the **Left and Right buttons** for 5 seconds (*until all 22 positions appear*). The screen will show **LEARN** in the top center of the display.
2. You will see that all your currently active tire positions display a tire pressure.
3. Press and hold the **Center and Right buttons.** After 5 seconds, the unit will beep twice, and each tire position will read "- -".
4. Since you are already in the **LEARN** mode, you may start the re-install process immediately (page 2).
5. If you are not ready, you should exit from this mode by pressing and holding the **Left and Right buttons** until all 22 positions disappear.
6. You will be back in **MONITORING** mode. From here, you may start over at any time.

Adding Transmitters

Your TireMinder A1AS can add up to 22 tires, per vehicle. To add transmitters, please following the instructions. Note, you do not need to delete any currently learned transmitters in order to add additional transmitters.

1. From **MONITORING** mode, press and hold the left and right buttons until you hear a beep and see **LEARN** near the top center of the screen.
2. Using the right or left buttons, move to the tire position you would like to add.
3. Once at the tire position you would like to add, screw a transmitter onto that corresponding tire position. Within 6 seconds you will hear a beep and see the current tire pressure.
4. Continue adding transmitters using steps 2 and 3. If you are done adding transmitters, return to monitoring mode by pressing and holding the left and right buttons for 5 seconds until you hear a beep and see **MONITORING** in the top center of the display.

Move a Single Transmitter

To move a single transmitter, please following the instructions:

1. Remove the transmitter you wish to move from the valve stem and set it aside.
2. From **MONITORING** mode, press and hold the left and right buttons until you hear a beep and see **LEARN** near the top center of the screen.
3. Using the right or left buttons, move to the tire position you would like to replace.
4. Once at the tire position you would like to move, press and hold the center button until you hear a beep and see "- -" instead of a tire pressure. The transmitter is now deleted.
5. Using the right or left buttons, move to the tire position you would like to add the transmitter and screw the transmitter onto the corresponding valve stem. Within 6 seconds, you should see "- -" change to the current tire pressure. If you are done moving transmitters, return to monitoring mode by pressing and holding the left and right buttons for 5 seconds until you hear a beep and see **MONITORING** in the top center of the display.

Delete a Single Transmitter

To delete a single transmitter, please following the instructions:

1. Remove the transmitter you wish to delete from the valve stem and set it aside.
2. From **MONITORING** mode, press and hold the left and right buttons until you hear a beep and see **LEARN** near the top center of the screen.
3. Using the right or left buttons, move to the tire position you would like to replace.
4. Once at the tire position you would like to delete, press and hold the center button until you hear a beep and see "- -" instead of a tire pressure. The transmitter is now deleted. If you are done deleting transmitters, return to monitoring mode by pressing and holding the left and right buttons for 5 seconds until you hear a beep and see **MONITORING** in the top center of the display.

Replace a Single Transmitter

To replace a single transmitter, please following the instructions:

1. Remove the transmitter you wish to replace from the valve stem and set it aside.
2. From **MONITORING** mode, press and hold the left and right buttons until you hear a beep and see **LEARN** near the top center of the screen.
3. Using the right or left buttons, move to the tire position you would like to replace.
4. Once at the tire position you would like to replace, press and hold the center button until you hear a beep and see "- -" instead of a tire pressure. The transmitter is now deleted.
5. With the original transmitter deleted, screw the new transmitter onto the same valve stem. Within 6 seconds, you should see "- -" change to the current tire pressure. If you are done replacing transmitters, return to monitoring mode by pressing and holding the left and right buttons for 5 seconds until you hear a beep and see **MONITORING** in the top center of the display.

Units of Measurement (PSI/BAR...)

The TireMinder A1AS is setup to default to PSI and °F (Fahrenheit). If you would like to change this to Bar (barometric pressure) or °C (Celsius), please use the instructions below.

1. From **MONITORING** mode, press and hold the center button for 5 seconds until you hear a beep and see **BASELINE** in the top center of the display.
2. Once in **BASELINE** mode, you will see PSI flashing. You may use the left or right buttons to toggle from PSI or Bar. With your desired pressure unit selected, press and release the center button.
3. °F will now be blinking. Using the left or right buttons, you will be able to toggle between °F (Fahrenheit) or °F (Celsius). With the correct temperature unit selected, you may now exit **BASELINE** mode by pressing and holding the center button for 5 seconds until you hear a beep and see **MONITORING** in the top center of the display.

Low Battery Indicator

The A1AS monitor has a built-in Lithium-Ion rechargeable battery which under normal use will function for over 2 weeks before requiring a re-charge. The level of charge is displayed in the top left portion of the screen. You may recharge the unit at any time if you feel it may be necessary. If the last bar disappears, the unit will beep several times and the battery icon will flash. If you don't plug it in soon, the monitor will shut down completely. To re-charge, simply use the supplied USB charger.

A full charge takes approximately 6 hours. When charging, you will see a lightning bolt to the left of the battery, along with a charging animation inside the battery. Once fully charged, the lightning bolt will disappear, and the animation will stop.

Transmitter Batteries & Proper Disposal

TireMinder External and Flow-Through transmitters use CR1632 style batteries. Please dispose of any used lithium batteries properly. Contact your local waste disposal company for drop off locations.

Powering on the Monitor

Press & Release the **TOP button** to turn on the monitor. Upon turning on the monitor will automatically be in the **MONITORING** mode.

Once turned on, the A1AS will automatically start to search for updated tire information. After a lengthy shutdown (either powered off or asleep), the readings will be in the memory of the monitor from when it was last turned off (*the night before, the week before or whenever it was last active*). It will take approximately 4 to 10 minutes to update the pressures and temperatures.

You may also initiate the Auto-search function (page 13). In this case, all readings will go to 0 PSI and 32°F. If all is well, updated pressures and temperatures will be back within 10 to 20 minutes.

Manually Turn Off the Monitor

From any mode, press & hold the **TOP button** until the screen goes completely blank. This will take about 3 seconds.

Signal Loss

If **SIGNAL LOSS** appears on the display, it means the monitor has lost the signal from one or more transmitters. Also, the top LED will blink red. This issue needs to be addressed when convenient (before leaving on a trip, at the next rest stop or campground, etc.).

Reasons for Signal Loss

a) **The booster** is not functioning. All TireMinder systems come with a booster included. If you have not installed it, then "shame on you." If it is installed, check that the booster is powered correctly. You should see a green LED glow when the unit is powered on. See "Signal Booster" (page 7).
b) The system is over 9 months old and the transmitter **batteries** need to be replaced.
c) One of the transmitters has been lost or damaged.
d) **Electronic Interference**: With the constant addition of new wireless products (many running at 433 MHz), it is possible that the TireMinder signal is being interrupted by electronic interference. If the signal comes back or is lost intermittently, you can rest assured the loss is due to such interference. 90% of this problem is cured by using the booster. Is yours installed with a green LED glowing? If YES, and all other possible signal loss reasons have been eliminated, consider moving the booster to a more central location.
e) **Distance:** Under normal operating conditions, distance is not an issue if you have installed the booster. At the same time, extreme cold and low transmitter battery (under 3 volts) power will shorten the operating distance even with a booster installed.
f) **Missing Vehicle – "Signal Loss"** The appearance of the "Signal Loss" is inevitable when a towed vehicle/trailer is separated from the towing unit unless you implement the unique "Disconnect Mode" of the A1AS.

If you do not use the "Disconnect Mode" but are aware you left the vehicle behind, you may simply ignore the warnings. If you are not aware of the missing vehicle, we suggest you turn around and go find it!!!

When the two systems are re-united, the monitor will pick up the missing tires automatically. This usually happens within the first 20 minutes. If you need them to re-connect immediately, simply loosen (depressurize) and tighten (re-pressurize) the transmitters on any missing wheels.

OUR Recommended Alternative is to put the unit in the full "Auto-Search Mode" (see page 13).

If you did use the "Disconnect Mode," upon reuniting the two units, you may simply engage the automatic "Reconnect Feature" and let the TireMinder do the work for you. See page 12 for "Disconnect" and "Reconnect Mode" directions.

Valve Extenders

These could be considered the "Necessary Evil" many RVers can't live without. If you are installing new valve extenders, we highly recommend the solid steel type (*rather than the flexible mesh or rubber type*). If you are mounting TireMinder transmitters to a valve extender, you must test for leakage using the latest high tech technique. It's commonly called the "Soapy Water Test".

- First attach the transmitter to the extender.
- Second, using a highly concentrated mix *(more soap than water)*, soak the transmitter end, as well the end attached to the original valve stem. If the extenders are the flexible type, soak them along their entire length (*not just the two ends*).
- Hopefully we do not need to tell you what you are looking for.

From experience, when users call or write complaining their TireMinder transmitter is leaking, it invariably turns out the problem is with their valve extenders. It should be understood that most valve extenders (*especially the flexible ones*) are not pressurized until a gauge is pressed against the open end of the valve. They are then only pressurized for a few seconds (*long enough to take a reading on the gauge*).

Non-Pressurized Vs Pressurized Braided Steel Valve Extenders

Non-pressurized braided steel valve extenders have a pin and a long actuator rod running from the outer end of the valve, which resembles a valve core. Pushing on the valve core pushes the rod down through the tube to open the valve core bolted to your tire rim. A good way of knowing that you're using a non-pressurized braided steel valve extender is if it is difficult to retrieve air out of the extender, while pushing on the extender's valve core. From the manufacturer, these are often called "Airless" valve extenders.

With a pressurized braided steel valve extender, the valve stem which is bolted to your tire rim is instantly opened once the extender is installed. Therefore, as soon as the valve extender is being screwed on, you should hear air escaping. The air flow should cease once the extender is properly tightened.

Please note, non-pressurized valve extenders will not work with your TireMinder A1AS and need to be replaced in order for the transmitters to function properly. Because non-pressurized valve extenders do not allow a consistent flow of air to the transmitters, the transmitters are unable to provide proper readings. This will result in incorrect readings or no signal alerts.

Accuracy of Pressure Gauges and TPMS

No reasonably priced tire pressure gauge is going to be 100% accurate. Likewise, **NO TPMS** is going to be 100% accurate. What's important is that they are reasonably close and relatively consistent. You engineers and pilots probably have steam coming out of your ears after that last sentence!!

Maybe this will help.....

- The TireMinder transmitters are accurate to ±3%.
- TireMinder brand pressure gauges (*mechanical or digital*) are among the most accurate on the market at ± two psi.

So, if you are running 100 psi in your tires, you could have a gauge reading 2 psi high and a TPMS transmitter reading 3 psi low leaving a difference of 5 psi. This is not uncommon and is considered totally acceptable. We have had calls from customers doing their initial installation saying all 8 or 10 TireMinder® transmitters are reading 9 to 11 pounds low!!! Can you guess what the problem is?? What is important to understand is that the TireMinder® A1AS (*and any other brand for that matter*) is designed to warn you of changes. For example, it really does not care whether it starts at 97 psi or 108 psi. It is the changes and deviations from the baselines you need to know about.

CR1632 Lithium Battery Installation

Look at the illustration to the right. Note that the battery slides **UNDER** the aluminum "bridge", "clip" or "bracket". Do **NOT** place it on top!! Be sure the plus (+) side is up. Incorrect insertion will burn out the circuit or break the solder connection.

The cover should only be finger tight (*snug*) so as to remain waterproof. Please, DO NOT use pliers and a pipe wrench! Over tightening will damage the "O" ring.

"O"hhhh! Rings

Transmitter "O" rings will also need to be replaced at some point. Their life varies greatly depending mostly on climate conditions. If you are not sure of their condition, consider changing them annually when you replace your batteries. Contact Minder (phone or web site to order). We can replace them at minimal expense. Please do not try to find them at Home Depot or Lowes. They will cost you more and will not be the right size. We know as we have tried!

Transmitter Caps

The TireMinder® caps are a crucial piece of the transmitter. The cap, along with the O-Rings, keeps the transmitter away from any weather and environmental damage. Like the O-Ring, their life depends mostly on climate conditions. The caps should be checked frequently. If one becomes broken or cracked, it should be replaced as soon as possible. Remember, caps are significantly cheaper than replacing a whole transmitter!

Monitor Location

Quite frankly, this is not something you should be watching constantly. If there is a problem, the unit will beep and the red light will flash. Therefore, place it somewhere within your peripheral vision.

- Try to keep the monitor away from other major electronics. We know this is not easy given how high-tech most of you RVers have become.
- Many of our Class A users have found the windshield is too far away to use the window mounting bracket.
- Most end up using Velcro and sticking it beside their left knee (*away from the dash and GPS!*).
- For 5th wheelers, we recommend mounting it in the bracket on the rear window (*assumes you have an extended cab type truck*). You will see it in the rear view mirror and if the red light flashes, your peripheral vision will pick it up instantly. This will get it away from the electronics in the dash and closer to the rear wheels at the same time.

Brass and Aluminum Transmitters. Which one do I need?
Minder makes two types of transmitters, the TM-2BRASS and the TM-2ALUM. The basic kits come with either 4, 6 or 10 of the brass style transmitters. RVs, MotorHomes, 5TH Wheels and Trailers will all have either rubber (brass) or metal (steel, chrome, or nickel) valve stems, all of which work with the TireMinder brass transmitters.

Aluminum Brass

All cars, SUVs and trucks will have either rubber (brass) or metal (aluminum) valve stems. If you have a rubber valve stem, you will need brass transmitters. If you have a metal valve stem, you will need aluminum transmitters.

What you are avoiding here is called "galvanic corrosion." This happens when dissimilar metals come into contact for a period of time. Moisture (especially if salty) will cause the two metals to become so corroded that they cannot be separated.

Transmitters and Friction (DO NOT Let the Transmitter Rub Against the Wheel!)

Once a transmitter is mounted on the valve stem, be sure it does not touch any solid portion of the wheel or hub cap. This can cause the friction from constantly rubbing up against the wheel, damaging the transmitter. This damage is not covered by the warranty.

Tire Rotation

Once a transmitter is learned to a specific wheel location, they are dedicated to that position. Mark and remove your transmitters before a tire rotation. That way, they can be easily put back on. If your A1AS seems to be acting strange after a tire rotation, start over. See ““Starting Over” Full Delete Mode” pages 14.

Technical Specifications A1AS

Sensor/Transmitter

Working Temperature	(-20°C--85°C) -4° F to 185° F
Working Humidity	0 – 100%
Dimensions	(23 x 21 x 21 mm) .8” x .8” x .9”
Weight	(14,1 g) 0.5 oz.
Battery Voltage	3V DC (CR1632)
Battery Life	1 year
Standby Current	500mA
Working Current	6mA
Pressure Range	(0 Bar – 10 Bar) 0 – 232 PSI
Pressure Precision	(±0.3 Bar) ± 2.7 % PSI
Temperature Precision	(± 3°C) ± 6° F Does not replace the Weather Channel.
Signal Transmitting Frequency	433.92 MHz
Operating Distance	Sorry, no hard number – varies with amount of electronic interference. Booster is mandatory! If these conditions are met, 100 to 120 ft may be possible. Without the booster, distance is extremely limited.

Monitor/Receiver

Working Voltage	3.7V DC
Working Temperature	(-20°C -- 60°C) -4°F to 140°F
Working Humidity	0 – 90%
Standby Current	0.1mA
Working Current	15mA
Battery Capacity	5000mAh
Dimensions	105 x 60 x 15 mm 4.25”x2.5”x0.6”
Signal Receiving Frequency	433.92 MHz
Color of Backlight	RGB (Red, Green, and Blue)

Charger

Input Voltage	12/24 VDC
Output Amperage	1.0 Amp
Internal Fuse	3.0 Amps

Booster

Input Voltage	12/24 VDC
Red & Black hard wire connect	3 ft. + length
Battery Draw	23.7 mA

TireMinder Limited Warranty

In order for Minder to extend its award winning customer service, it is extremely important that you complete and mail the enclosed warranty card along with a copy of your bill of sale.

This TireMinder TPMS is guaranteed against manufacturing defects for a period of **three years** from date of purchase. Should the unit not function as designed, TireMinder. will repair or replace the section at no charge to the owner.

Excluded are products that have been damaged through impact, water, fire, misuse or unauthorized service.

This warranty is limited to the replacement of the product only and does not extend to any incremental cost incurred. In no case shall TireMinder's liability exceed the purchase price. This warranty gives you specific legal rights which may vary from state to state or province to province.

If you have a question or a problem, please contact the TPMS specialist at TireMinder (772.463.6522) before returning the product. Many issues can be resolved over the phone.

If service is required return w/copy of bill of sale to:

TireMinder
3000 SE Waaler Street
Stuart, FL 34997
United States of America

(772) 463-6522
www.MinderResearch.com
info@MinderResearch.com

FCC Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.