



SmarTire LF Initiator Tool

PN: 710.0026

Revision 1.2

Instruction Manual

© Copyright 2006
SmarTire Systems Inc.

Duplication of this document in whole or in part for any purposes other than those for which it was originally intended, without the written approval of SmarTire Systems Inc. is strictly prohibited.

This manual may be changed by SmarTire Systems Inc. at any time and without notice.

TABLE OF CONTENTS

INTRODUCTION3
OVERVIEW.....3
LED FUNCTIONS.....4
GETTING STARTED4
USING THE LF INITIATOR4
PROGRAMMING SENSOR ID NUMBERS.....5
VERIFYING CORRECT INSTALLATION6
SMARTIRE PRODUCT & SERVICE PART WARRANTY:EFFECTIVE NOVEMBER 15, 2005.....7

INTRODUCTION

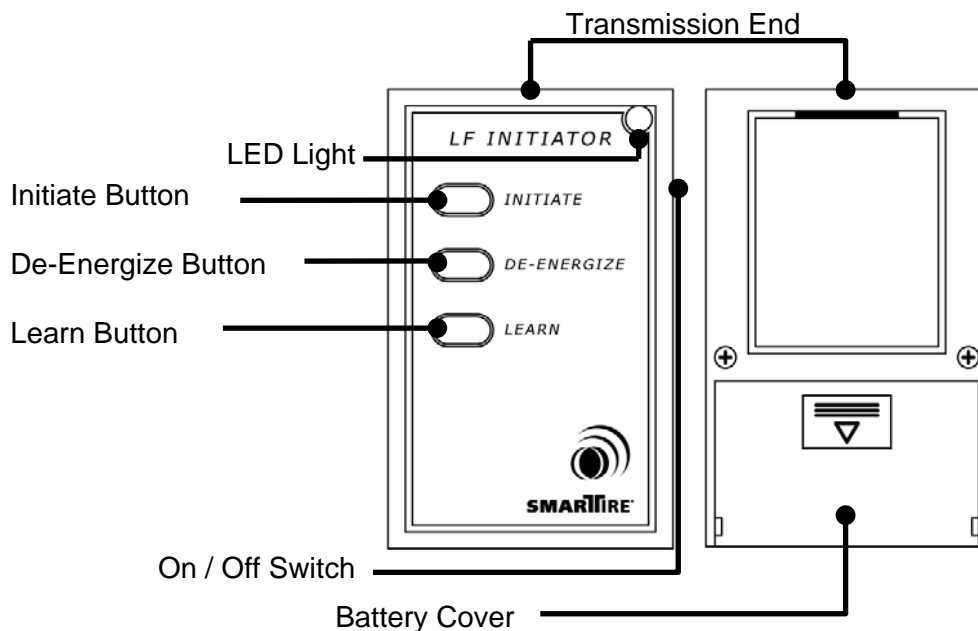
The SmarTire LF Initiator is a handheld tool designed to provoke data transmissions from SmarTire High Pressure Sensors. The tool can be used to assist the installer during:

- **New Installations** – programming sensor ID numbers & vehicle configuration into the receiver
- **Sensor Replacement** - programming new sensor ID numbers into the receiver
- **Installation Verification** (without moving vehicle)
- **Transmitter De-Activation** (after removal)

NOTE: The SmarTire LF Initiator is compatible with SmarTire's low and high pressure commercial sensors ONLY. It is not compatible with the low pressure sensors used in SmarTire products for passenger vehicles, motorcycles, trailers and tow-behinds.



OVERVIEW



Initiate: Press this button to make a sensor transmit its ID number, tire pressure data and tire temperature data. This function is used when confirming that sensors are installed in the correct wheel locations on a vehicle after system installation.

De-energize: Press this button to de-activate a sensor. This function should only be used when sensors are removed from a vehicle.

Learn: Press this button to make a sensor transmit a 'Learn' transmission. Learn transmissions are used when reprogramming sensor ID numbers into the SmarTire receiver.

LED FUNCTIONS

Whenever a button is pressed, the LF Initiator Tool indicates its status by the color of its LED light.

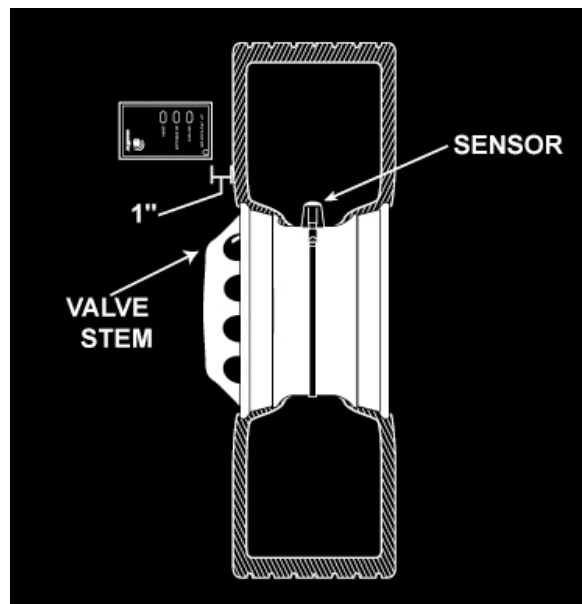
- GREEN = Working properly (approx 5 second illumination duration)
- RED = Not working properly (contact SmarTire distributor for replacement)
- ORANGE = Low battery voltage

GETTING STARTED

The SmarTire LF Initiator is powered by a standard 9 Volt battery. To install the battery, open the battery access panel on the back of the tool and connect the supplied battery to the 9 Volt battery connector. Insert the battery into the slot and close the battery access panel. Push the ON / OFF switch up to power the tool on and down to power it off.

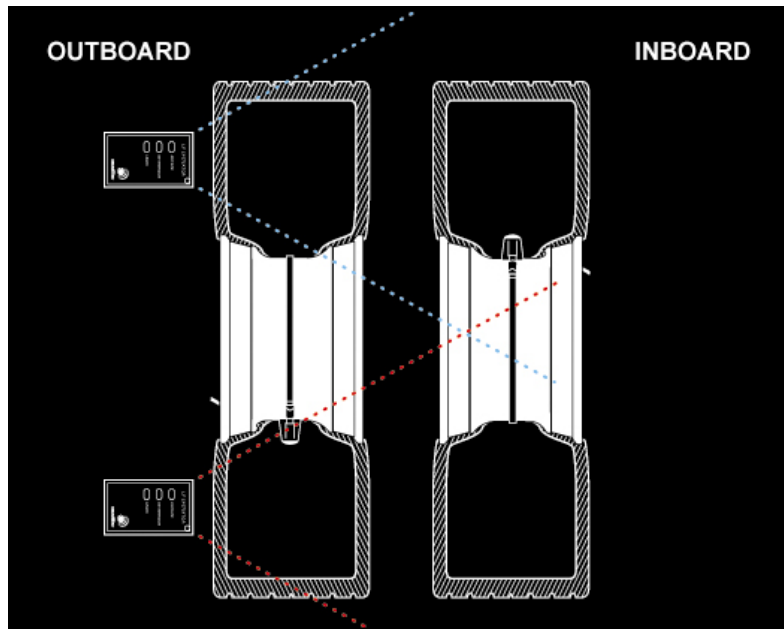
USING THE LF INITIATOR

The SmarTire LF Initiator Tool is very easy to use. Simply hold it approximately 1 inch (2.5 cm) away from the tire's surface positioned at the center of the tire's sidewall at the location of the valve (SmarTire sensors should be installed at the valve and their location should also be indicated by a rim mounted label). Press (but do not hold down) the button and hold the tool in place for approximately 5 seconds to ensure the wireless signals emitted from the tool reach the sensor.



For dual-wheel assemblies, position the LF Initiator Tool approximately 1 inch (2.5 cm) away from the tire's surface positioned at the center of the outboard tire's sidewall opposite the valve stem. The transmission from the tool will pass through the outboard tire and provoke a data transmission from the sensor mounted on the inboard tire.

NOTE: Do not contact the tire or wheel surface when initiating data transmission from a sensor. Dual-wheel assemblies should always be mounted with valve stems 180° opposite each other.



PROGRAMMING SENSOR ID NUMBERS

Sensor ID numbers should be programmed by authorized SmarTire installation facilities using a Dealer Programming Tool (DPT). When programming a new sensor ID number, the installer must first configure the receiver so that it is ready to receive a new ID number, and then make the sensor transmit its ID number. The steps below describe how to program sensor ID numbers using the LF Initiator.

1. After connecting the DPT and installing all sensors, power on the system. Press and hold the 'SET' button on the DPT for more than two (2) seconds and less than five (5) seconds to enter the Full Programming Mode.
2. Press the 'MODE' button on the DPT to toggle between the different programming screens until the learn icon (a profile of a head containing a question mark) and a computer icon appear on the display. The DPT is now displaying the Sensor ID Number Programming screen.
3. Press the 'TIRE' button on the DPT to select Sensor ID Number Programming and the ten possible wheel positions for the primary vehicle will be displayed (windshield appearing on screen). The pre-programmed sensor positions are indicated by darkened tire icons.
4. Press the 'TIRE' button on the DPT to toggle to the desired wheel position. The flashing tire outline indicates the selected wheel position. When toggled past the primary vehicle, the display will show possible wheel positions for a tow-behind vehicle. Continue toggling past the axles of the two-behind vehicle to once again access the primary vehicle.

5. If a sensor ID number is already programmed in the selected wheel position (indicated by a filled in tire icon and an 'X' on the screen), the ID number must be erased before a new ID number can be programmed. Press the 'MODE' button to erase the pre-programmed ID number (the 'X' will disappear) and then press the 'MODE' button again to select the wheel position for programming (check mark will be displayed). If a sensor ID number does not exist at the selected location, simply press the 'MODE' button once to select the highlighted wheel position for programming.
6. The receiver is now ready to receive the new sensor ID number. Turn on the LF Initiator Tool and go to the tire that contains the new sensor to be programmed into the receiver. Position the transmission end of the LF Initiator Tool approximately 1 inch (2.5 cm) away from the tire's surface positioned at the center of the tire's sidewall at the location of the valve stem (sensor should be installed near the valve stem). Press the 'LEARN' button on the LF Initiator Tool and the sensor will transmit its ID number to the receiver. Be sure to hold the tool in place until the light turns off to ensure the signal has reached the sensor. The tire icon on the display will turn black and the screen will display an 'X' when the sensor's transmission has been received.
7. Press the 'TIRE' button to toggle to the next wheel position to be programmed (if required) and repeat steps 4 - 6 until all sensor ID numbers that need to be programmed are programmed into their respective locations in the receiver.
8. Press the 'SET' button to save all of the sensor ID numbers and their locations into the receiver's memory.
9. When complete, press the 'SET' button to exit and then turn off the system. Disconnect the DPT and reconnect the standard display.

NOTE: If 'ERR' appears on the screen and two or more tire icons are flashing, two wheel locations have been programmed with the same sensor ID. If two identical sensor ID numbers are programmed, press the 'TIRE' button to select one of the flashing locations for reprogramming and then repeat steps 4 - 6 at the flashing locations. Repeat for the second location to ensure that the correct sensor ID numbers are programmed. Press the 'SET' button to save the revised sensor ID numbers into the receiver.

VERIFYING CORRECT INSTALLATION

To ensure that the system is properly configured after new sensor ID numbers have been programmed in the receiver, verify the programming by following the steps below:

1. Power up the receiver by switching the ignition on.
2. Place the SmarTire LF Initiator next to each sensor position and press the 'INITIATE' button to cause each sensor to transmit ID number and tire data.
3. Check the display to confirm that the signal was received by the receiver (wheel position should have turned dark).
4. If a sensor's transmission was not received, repeat step 2. If the problem persists, power down the system and repeat the "Programming Sensor ID Number" process.

SMARTIRE PRODUCT & SERVICE PART WARRANTY:

EFFECTIVE NOVEMBER 15, 2005

This warranty is effective as of November 15, 2005 and supersedes all past warranties expressed by SmarTire Systems Ltd. Warranty subject to change by SmarTire Systems Ltd. at any time without notice. Warranty claims must be processed with the Authorized SmarTire Dealer of purchase and not SmarTire Systems Ltd.

Warranty Policy

Subject to the conditions stated herein, SmarTire Systems Ltd. ("SmarTire") warrants that its Products and service parts, when properly installed in approved applications, will conform to Product specifications and will be free from defects in material and workmanship under normal use and service. The term of SmarTire's warranty for its Products is 24 months and unlimited mileage commencing on the date of retail sale. Dated proof of purchase and claimed parts for return are required. The term of SmarTire's warranty for its service parts is 12 months and unlimited mileage commencing on the date of retail sale. Dated proof of purchase and claimed parts for return are required. The SmarTire warranty will be honored by the authorized SmarTire dealer from which the Product or service part was purchased.

Subject to warranty approval, SmarTire shall, at its discretion, cover the following:

- Products: replacement parts and cost of labor;
- Service Parts: replacement parts only.

SmarTire's obligation to satisfy a warranty claim is subject to, yet not limited to the following conditions:

- a. dated proof of purchase is provided;
- b. all Product involved must, unless otherwise indicated by SmarTire, be returned to the Authorized SmarTire Dealer of purchase; and
- c. SmarTire's examination of the Product must disclose to SmarTire's satisfaction that none of the Warranty Exclusions described herein apply. In all cases, SmarTire shall make the final determination as to the warrantability of the Product.

Products replaced under warranty are covered hereunder by whichever is greater, the remaining portion of the original warranty period or 12 months.

General Limits and Exclusions

Coverage is not provided for the following failures or expenses:

- a. Towing;
- b. Downtime, lodging, meals, and travel time or transportation;
- c. Troubleshooting / Diagnostics - except where allowed as indicated in the SmarTire approved guidelines;
- d. Freight for expedited or rush parts shipments (Parts will be shipped by the most economical means possible);
- e. Non-genuine replacement parts void the component warranty when used to make a repair;
- f. Component damage due to failure of other chassis or vehicle components;
- g. Undefined or unidentifiable miscellaneous changes;
- h. Failures due to product mis-application or SmarTire unapproved application;
- i. Failures due to unapproved alterations or modifications to the vehicle or the SmarTire component;

- j. Failures caused by improper installation or improper prior repair including damage to Product by tire (tyre) removal or installation;
- k. Corrosion and rust;
- l. Tires (tyres)
- m. Failures due to dirt, snow, or ice build-up;
- n. Accident, damage, negligence, abuse or misuse.

All returned Products become the property of SmarTire and will not be returned. SmarTire's determination of warranty coverage shall be final in all cases.

SmarTire reserves the right to reject warranty claims for any or all of (but not limited to) the following reasons:

- a. Proof of purchase was not provided;
- b. Failure occurred beyond applicable warranty period;
- c. Claim information is insufficient;
- d. Product was not returned for inspection as requested;
- e. Product inspection does not substantiate claim or indicate a failure.

Warranty Disclaimer

SMARTIRE'S EXPRESS WARRANTY AND PURCHASER'S REMEDIES THEREUNDER ARE EXCLUSIVE AND GIVEN IN PLACE OF (a) ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, WHETHER WRITTEN OR ORAL, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR IMPLIED WARRANTY ARISING FROM PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE, AND (b) ALL OTHER OBLIGATIONS, LIABILITIES, RIGHTS, CLAIMS OR REMEDIES, INCLUDING ANY RIGHT IN CONTRACT, TORT, EXTRA-CONTRACTUALLY, STRICT LIABILITY OR ANY RIGHT ARISING FROM SMARTIRE'S NEGLIGENCE, ACTUAL OR IMPUTED. YOUR STATUTORY RIGHTS ARE NOT AFFECTED.

Limitation of Liability

SMARTIRE'S OBLIGATIONS AND PURCHASER'S REMEDIES UNDER SMARTIRE'S EXPRESS WARRANTY ARE LIMITED TO SMARTIRE'S CHOICE OF REPAIR, CREDIT OR REPLACEMENT AND EXCLUDE LIABILITY FOR INCIDENTAL, SPECIAL, CONSEQUENTIAL OR ANY OTHER DAMAGES, INCLUDING, WITHOUT LIMITATION, REPLACEMENT COSTS, ECONOMIC LOSS, LOST REVENUE, LOST PROFITS, OR LOSS OF USE OR DAMAGE TO OTHER PROPERTY. PRODUCTS ARE CONSIDERED TO BE MONITORING DEVICES, AND ARE NOT TO BE CONSIDERED AS SAFETY DEVICES.

FCC NOTICE

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 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.

Changes or modifications to this device without the express approval of SmarTire Systems Inc. may void the user's authority to use this device.

EUROPEAN REGULATIONS

This device complies with R&TTE 1999/5/EC through harmonized standards (EN301 489-1 and EN330 330-1). The equipment has been tested and found to comply with the above directive and in addition it meets the requirements for low powered transmitters/receivers as defined by the relevant radio approval authority and complies with low voltage directive 73/23/EEC. The directive is designed to provide reasonable protection against harmful interference or susceptibility. Changes made to this device without the express approval of SmarTire Europe Ltd. may void the user's authority to use this device

SmarTire Systems Inc.
Suite 150, 13151 Vanier Place
Richmond, British Columbia
Canada, V6V 2J1
Tel: 1.888.982.3001
Fax: 1.604.276.0864
Email: info@smartire.com
www.smartire.com

SmarTire Europe Limited
Park 34
Didcot, Oxfordshire
United Kingdom, OX11 7WB
Tel: +44.1235.511010
Fax: +44.1235.514640
Email: info@smartire.co.uk
www.smartire.com