

# LSM TyreGuard® MTR360™

## INTEGRATION WITH ADVANCED TYRE MONITORING SYSTEMS

Reports tyre temperature and pressure data for:

- Primary vehicle
- Up to 8 tow vehicles
- Up to 180 tyres
- Quick “Drop and Hook” function

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## SIMPLE AND PRECISE

Your maintenance crew and drivers can now know with certainty that tyre temperatures and pressures are right before and during a journey.

LSM TyreGuard® integrates into the Doran MTR360™ TMSystem and monitors every one of up to 180 tyres on eight connected trailers / dollies or groups of 20 x tyre sensors for each transceiver, e.g. low loaders.

Information from each tyre sensor is relayed to a cab-mounted display/monitor from RF sensors mounted on the air valve stem.

By hooking each tow vehicle (or tyre group - low loaders) up to the system in sequential order, the driver is able to view a display of the truck / tow vehicle's tyres in position and navigate to each one to check the data.

Easy to install, with full instructional documentation and detailed engineering drawings available.



LOW PRESSURE ALARM

## ALERTS

When pressure or temperature limits are incorrect, the system will signal an alarm alerting the driver to the problem and its location on the rig or tyre group (low loaders).

### Level I Low Pressure warning:

Issued when a 12.5% drop from the programmed baseline tyre pressure occurs.

### Level II Low Pressure warning:

Occurs when a 25% drop from the programmed baseline tyre pressure takes place.

### FastLeak™ warning:

Triggered when the pressure drops by 19.3 Kpa in less than 12 seconds, regardless of the baseline tyre pressure.

### High Pressure alarm (optional):

This can be set to provide warnings with a 25% increase over the programmed baseline tyre pressure

### High Temperature warning:

Triggers a "HOT" wheel over temperature alert >80°C .



FASTLEAK™ ALARM



HIGH PRESSURE ALARM



HIGH TEMPERATURE ALARM

## PREVENT ACCIDENTS - REDUCE COSTS

- **Tyre Service Life / Fuel Economy:** Maintaining optimum set- point pressures mean tyres and tread last longer and reduce fuel consumption.
- **Increased Safety:** Avoid tyre fires (locked brakes / bearing failures, tyre under-inflation) and potential accidents.
- **Braking / Traction / Control:** Correct tyre inflation maximises control in both dry and wet conditions.
- **Cost downs / Productivity / Tyre Checks:** Targeting tyres that require re-pressurisation saves on labour and associated productivity loss.
- **Equipment Damage Control:** Catastrophic tyre failure, roll-overs and tyre explosions (pyrolysis).

LSM Technologies: safety for both your human and equipment assets.

## FIT FOR PURPOSE

The LSM TyreGuard® MTR360™ system was designed for the extremes of the road and changing weather conditions.

- The sensor electronics are secured with a potting material to provide component stability, extreme temperature resistance and airtight construction.
- Proven and robust technology that is purpose-built to survive and function efficiently in operational / environmental extremes.
- Provides the highest level of accuracy, durability, reliability and protection for your pneumatic tyres.
- The long life Lithium-ion battery in the sensors provides an estimated life of up to five years.
- Tested and certified to SAE 2848 Standard Tyre Pressure Systems Management (CTIS) type for Medium and Heavy Duty Highway Vehicles, and SAE J1455 Standard Recommended Environmental Practices for Electronic Equipment Design in Heavy-Duty Vehicle Applications.
- Sensors have been tested and certified for use in ex-proof environments.

## TYPICAL APPLICATIONS

- On-road transport rigs, prime-movers, trailers / dollies
- Off-road heavy haulage rigs of the same
- Quarry truck rigs
- Dangerous goods transport
- Low loader rigs up to 180 tyres



## MORE FEATURES

- Integrated into the [LSM FSM® Fleet Safety \(Tracking\) Manager](#) it provides normal fleet tracking but also integration of our TMSystems to provide a remote, web-based management tool for data collection, automatic reporting, analysis and proof of safety compliance.
- The LSM TyreGuard® MTR360™ is easily programmed using our [LSM SmartLink Tablet](#). Tyre sensor data can be transferred to the SmartLink™ tablet from individual sensors, truck walk around and trailer walk around. Data can be stored offline with images of tyres and tread depth data.
- The LSM TyreGuard® MTR360™ provides “drop and hook” operations. Each vehicle / tow has its ID registered into the TMSystem. As each tow vehicle is “dropped” or disconnected, the TMSystem recognises this and no longer monitors the tyre sensors for the respective tow(s).
- When each Tow Vehicle is “hooked” / reconnected, the TMSystem reinstates the tow(s) tyre sensors for in-cabin monitoring again.

Detailed LSM TyreGuard® MTR360™ specifications are on our website:

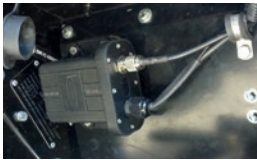


## COMPONENTS



### MONITOR/DISPLAY

- Power Requirement: 12 / 24 Vdc
- Current Draw at (eg at 12 Vdc): Normal Mode: <77 mA
- Alarm and Backlight: <115 mA
- Sleep Mode: <70 mA
- Tyre Positions: 20 x tyre positions mapped for the truck and each vehicle or group (low loaders) up to 180 tyres
- Dimensions: W 144 mm x L 55 mm x D 29 mm
- Weight: 153 g



### HUB-DATA COLLECTION UNIT

- Power Requirement: 12 / 24 Vdc
- Current Draw: <100 mA
- Operating Temperature range : -40° C to 125° C
- Working Temperature range: -40° C to 125° C
- Dimensions: L 110.22 x W 93.16 x H 72.1 mm
- Weight: 450 g
- Data Input: RS232



### WIRELESS TYRE PRESSURE SENSORS

- Pressure Range: 69 to 1300 kpa (10 to 188 psi)
- Accuracy: +/- 13.8 kpa (2 psi) over the pressure range
- Operating Frequency: 434.10 Mhz
- Operating Temperature Range: -40° C to +125° C
- Battery: Lithium-ion, internal, non-rechargeable & non-replaceable
- Low Voltage Shutdown: 2.2 V
- Dimensions: W 29.53 x H 33.1 mm
- Weight: 23.5 g

**SPECIAL NOTE:** Both Internal and External Mounted Sensors are available.



### REMOTE ANTENNA KIT

- Cable: coaxial
- Length: 3 m or 10.5 m



### ONE-CLICK TRANSCEIVER

- Dimensions: W 124 mm x H 178 mm
- Modulations Mode: FSK
- Operating Frequency: 434.10 Mhz
- Input Voltage Range: 12/ 24 Vdc
- Current Draw: 75mA at 12/ 24 Vdc
- Operating Temperature Range: -40° C to +85° C
- Weight: 454 g with cord

## ALSO AVAILABLE



### SMARTLINK™ TABLET

- Dimensions: W 286 mm x H 191 mm x D 38 mm
- Screen Size: 203 mm
- Weight: 1.25 kg
- Operating System: Android
- Storage Capacity: 3.5 GB
- USB Cable Included

# LSM FSM<sup>®</sup> TELEMATICS AND / OR LSM SENTINEL<sup>®</sup> (pat.pend.) VSS INTEGRATION



## LSM FSM<sup>®</sup> FLEET SAFETY (TRACKING) MANAGER

LSM TyreGuard<sup>®</sup> Tyre Monitoring Systems works hand in hand with the LSM FSM<sup>®</sup> Fleet Safety (Tracking) Manager Telematics System to provide real time data and alerts back to base, ensuring a proactive approach to enhance workplace (and public) OH&S, equipment damage control, maintenance cost-downs and productivity.

LSM FSM<sup>®</sup> is an in-house world first Australian designed and developed SaaS software that allows users to be provided with more than just fleet tracking, but also integration of LSM product technologies, that can be accessed via any internet connected PC or mobile device. LSM FSM<sup>®</sup> Fleet Safety (Tracking) Manager is an intuitive web browser interface with single-click access to fleet dashboards, customise reports, compliance tools as well as real-time, user-defined alerts.

It is scalable from a single vehicle or asset up to thousands, providing immediate alerts as required via SMS and email, anywhere in the world, 24/7.

Australian designed and made for Australian industry.



FSM<sup>®</sup> Fleet Safety  
Tracking Manager

## LSM SENTINEL<sup>®</sup> (pat. pend.) VSS (VEHICLE SAFETY SYSTEM INTEGRATION)

LSM TyreGuard<sup>®</sup> Tyre Monitoring Systems also integrate into the LSM Sentinel<sup>®</sup> (pat. pend.) VSS Vehicle Safety System.

This is especially advantageous where most vehicle cabins have limited "real estate," avoiding a clutter of monitors or displays. The LSM Sentinel<sup>®</sup> in-cabin display provides driver / operator alerts for *all* LSM connected OH&S mitigation technologies, all on a single monitor.

Australian designed and made for Australian industry.



LSM Sentinel<sup>®</sup> (pat. pend.)  
VSS Vehicle Safety System

### HOW TO ENQUIRE

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