

## ...on the move!

# www.lsmtechnologies.com.au 360M

**USER MANUAL** 



## READ THE ENTIRE MANUAL CAREFULLY BEFORE USING THIS PRODUCT.



BE SURE TO READ THE INSTALLATION INSTRUCTIONS ON PAGES
4 THRU 7 BEFORE INSTALLING THE VALVE SENSORS.

Please log serial numbers from sensors here!

- "F" (front) sensor's last three digits of serial number \_\_ \_ \_\_
- "R" (rear) sensor's last three digits of serial number \_\_ \_\_\_.



Last three digits

The DORAN 360M is designed solely to monitor tire pressure. It is not designed to provide warning of a potential or actual tire blowout.

The National Highway and Traffic Safety Administration considers a tire flat when the pressure is 25% below the tire manufacturers recommended operating pressure.

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The DORAN 360M is a full-time direct tire pressure monitoring system, which includes one monitor and two sensors. The system is a tire pressure monitoring system that displays tire pressure. It is not designed to provide warning of a potential or actual tire blowout.

The sensor is screwed on the valve stem either internally or externally to sense the pressure of the tire and transmit the data to the monitor through Radio Frequency ( "RF") technology. After the monitor receives the data it will be displayed on the screen. The monitor will issue different alarms based on the programmed pressures. When used properly, the DORAN 360M will inform the driver of the tire pressures on the vehicle to provide the operator an opportunity to make any necessary adjustments to the air pressure before a serious problem occurs. Because the system uses RF technology and interference could occur with the RF transmission, no guarantee of signal reception can be made. However, when a signal is received, the system will provide an alert of low pressure.



## The DORAN 360M comes with the following components:

- (1) Monitor w/ attached power cord
- (1) Handlebar attachment bracket w/ screws
- (3) Sizing straps for handlebar sizing
- (2) Straight replacement valve stems
- (10) Nylon wire ties
- (2) Wrenches for sensor Locks
- (1) 3M adhesion Promoter Pad

- (1) External warning lamp
- (2) Sensors
- (1) Velcro attachment pads
- (2) 90-degree replacement valve stems
- (2) Sensor locks
- (2) Alcohol Prep Pads

If you are missing <u>any</u> of these components, DO NOT proceed with installation. Contact the manufacturer for any missing or replacement parts.





## READ ALL OF THESE INSTRUCTIONS BEFORE INSTALLATION



<u>IMPORTANT</u>: BEFORE GOING ANY FURTHER, PLEASE WRITE DOWN THE LAST THREE DIGITS OF THE SERIAL NUMBERS OF <u>EACH</u> SENSOR ON THE FRONT PAGE OF THIS MANUAL FOR YOUR FUTURE REFERENCE.

## Installation



## When you receive your new system:

Sensor IDs are already preprogrammed to your monitor Baseline pressures are already set to 35 psi Attach monitor and sensors per instructions.

Read all instructions carefully for complete system operations.

## A. Monitor



We recommend that the monitor be placed in front of and in clear view of the driver at all times.

The installation of the DORAN 360M is quite easy!

- Locate a mounting position of your choice and attach the monitor to the vehicle. Included in your kit is a handle bar mounting bracket and double-sided adhesive pads that you can use to attach the monitor.
  - **Option:** If you prefer your monitor to be less noticeable, you may want to use the remote LED warning light, which will also provide a low-pressure warning. This can be attached to the mirror, fairing, or other part of the motorcycle. When a warning is received, the light will blink and you can retrieve the pressures by looking at the monitor when you stop to check the tires.
- 2. Connect the (red), positive wire to a 12-volt positive connection, and the (black) negative wire to a good ground connection. The monitor is fused internally so you will not need to install a fuse in-line. You may want to connect the positive wire to a switched connection so the unit is only operational when the vehicle is running. This will save battery power when the vehicle is not being used, but with this method, alerts that are transmitted while the monitor is turned off will not be updated until the ignition switch is turned on. It could take up to six minutes for the sensors to report in to the monitor for present updates.

## Installation



When the monitor is connected to a non-switched circuit the monitor will draw a very small amount of current all the time. Leaving the monitor turned on a month at a time without charging the battery should not cause a complete discharge of the battery. However, <u>periodic checks</u> should still occur to make sure the battery continues to maintain a charge.

Conduct a regular visual inspection of the motorcycle's tires. The sensors are not a substitute for proper tire maintenance and it is the user's responsibility to maintain proper amounts of tire pressure and respond accordingly to warnings and alerts. Low tire pressure is not the only problem associated with tires. Therefore, symptoms such as bulges, uneven tread, abnormal noise, etc. should immediately be brought to the attention of a professional.

## **B. Sensors**

REPLACING RUBBER VALVE STEMS WITH METAL VALVE STEMS IS HIGHLY RECOMMENDED FOR EITHER INSTALLATION METHOD.

#### 1. Outside the Wheel Installation

This is the only method that can be used for wheels using an inner tube.

a. Screw the sensor labeled "F" onto the Front tire valve-stem. Screw the sensor labeled "R" to the Rear tire valve stem.



b. Check for clearance between the sensor and components around the wheel location for any interference with the sensor.



- c. If the baseline pressures that you want to monitor are 35 psi then the installation is complete (you can then proceed to Section III to learn how the system functions).
- d. To Change the baseline air pressures please see "Baseline Air Pressure Programming" on page 12 of this manual. We recommend that you set the baseline pressure at the same pressure as your recommended Manufacturers Operating Tire Pressures.

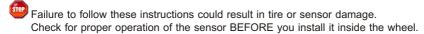
The National Highway and Traffic Safety Administration considers a tire flat when the pressure is 25% below the tire manufacturers' recommended operating pressure.

e. Check the connection between the valve stem and the sensor for leaks. To check the connection, use a soapy solution and watch for bubbles to appear around the sensor connection

#### 2. In The Wheel Installation

If you are running tubeless tires and want your sensors on the inside of your tires you should have a service center install the system, including the appropriate valve stems included in your TPMS kit for your application.

NOTE: Before you take your system to a service center for installation, follow the instructions for the Outside the Wheel installation to ensure functionality of the system. You can then take the sensors off the outside of the tire and schedule your visit to the service center for inside-the-wheel installation.



- a. Remove the first wheel from the motorcycle.
- b. Remove the tire and the original valve stem from the wheel.
- c. Two straight valve stems and two 90-degree valve stems are included for the proper application to your motorcycle. Use the appropriate stem for your needs.
- d. Be sure to use the proper seal on the inside of the wheel. Install the metal washer to the Outside of the wheel along with a nut to hold the valve stem in place. Refer to Figure 2-1.





Step-Seal

stem

used for hole

that is larger

than the Valve

Thread locking material



Seal and stem centered in the hole for Valve stem



Metal washer inverted to allow the washer to keep the valve stem centered



Nut tightened to secure valve stem to wheel

Figure 2-1

e. Install the bottom tire bead over on the rim (see Figure 2-2 and 2-3).



Figure 2-2



Figure 2-3

- f. Install the sensor to the valve stem. The sensor should be tightened only by hand, <a href="not">not</a> with a tool. Use a firm grip and tighten the sensor. It should stop when the threads are fully engaged. A thread locking material has been added to the internal threaded portion of the stem that will be on the inside of the wheel (see Figure 2-1). Install the correct sensor into the appropriate wheel (front or rear). The sensor will bind to the added Thread Locking material and as a result, the vibration of driving will not allow the sensor to become loose in the tire.
- g. Carefully pull the bottom bead over the sensor so that the sensor isn't damaged. (See Figure 2-4)



h. Start the top tire bead ahead of the sensor in a clockwise position (e.g., sensor at the 12 o'clock position and the start of the tire bead at the 9 o'clock position) so when you have finished mounting the tire you will not be in the area of the sensor which could damage it if it gets caught up in the tire mounting tool. (See Figure 2-5)



Valve stem at 12 o'clock position



Bead started at 9 o'clock position

Figure 2-4

Figure 2-5

- i. Fill the tire with the proper baseline air pressure and then have your tire properly balanced and re-installed on the motorcycle.
- j. Repeat steps a. through i. for tire # 2.

After completion of the above steps for each sensor, you will be able to monitor your tire pressure. If the baseline pressure needs to be adjusted from the pre-programmed 35-psi setting see **page** 12 of this manual for the proper method of adjustment.

## 3. Removal of tire from rim when sensors are already installed



Figure 3-2

- A. Remove wheel assembly from motorcycle and deflate the air from the wheel.
- B. Start with the valve stem at 12 o'clock and the tool to remove the top bead of the tire at 3 o'clock.
- C. Start to remove the top bead, but you must stop the tool before it reaches the 12 o'clock position. The tool could break the sensor if it comes in contact with it. The top bead should now be free of the wheel.
- D. Physically take the bottom bead of the tire and move it to the topside of the sensor. This will allow the bead to be removed without binding on the sensor (see Figure 3-2).

Insert the tire tool at the 3 o'clock position to remove the bottom bead of the tire. Care should be taken to insure that the bead is free of the sensor during removal.



## A. Normal Operation



Figure 4-1

When the monitor is turned on, it will display three dashes (---) (see Figure 4-1) for both wheel locations, if you have installed the optional exterior stick-on warning light, you will see the red light flash three times and then pause. This will repeat until the sensor has checked in and is recognized by the monitor. until the monitor has received a signal from each wheel sensor.

It could take up to six (6) minutes for the monitor to receive the updated signal from the sensors once the monitor has been activated.

- 1. <u>Display</u> The monitor will display "on" (see Figure 4-2) when:
  - The sensors have checked in with the monitor and the signals are received and the air pressures are within the programmed range, which is within the 12.5% range of the baseline air pressure (set at 35 psi for Front and Rear at the factory).

If the air pressure is not within the 12.5% range of the baseline pressure a warning will occur (See Alert mode this Section B).



Figure 4-2



Figure 4-3

- 2. <u>Buttons</u> "on" is the normal display when the tires are within the proper air pressure range. The monitor will display "on" until either the SorP buttons have been pressed.
  - Pressing the P button will cause the backlight to come on and the monitor to display the
    present Air pressure in turn for each tire position for 3 seconds during a 30 second
    interval
  - Pressing the S button will cause the backlight to come on and will display the pressure for the front tire position. Pressing the button again will display the rear tire position (see Figure 4-3)
  - A third press of the substantial button will cause the monitor to display the "on" as it displays in the normal operation mode (Figure 4-2).

## **Function and Operation**



#### **B. Alert Mode**

NOTE: An alert indicates that you are operating your motorcycle in a dangerous condition.

When the low pressure light illuminates, STOP and check your tire(s) as soon as safely possible, and inflate them to the proper pressure.

NOTE:

The DORAN 360M will illuminate a flashing low tire pressure warning light and an audible alarm for three minutes when the inflation pressure in one or both tires is equal to or less than 12.5 % below the programmed baseline air pressure. The warning will continue to illuminate as long as the malfunction exists, whenever the monitor is switched on.

## FIRST STAGE ALARM FOR 12.5% LOW AIR PRESSURE:

The DORAN **360M** shows you an alarm when one of your tire's pressure drops below 12.5% of the baseline tire pressure. For a base line pressure of 35 psi, the First Stage Alarm would occur at 30 psi.

- The tire icon on the left side of the screen will indicate the low tire.
- The pressure of the low tire will be displayed with the "L" icon.
- A red warning light with a low tire icon will flash once per second (Figure 4-4)
- An audible beep will be heard.
- If the auxiliary red warning light is also attached to the monitor, it will also flash one time per second.
- This warning will continue until one of the buttons is pressed and at this time the beeper will be turned OFF, but the warning light(s) will continue to glow until the low-pressure fault is corrected.



Figure 4-4



#### 2. SECOND STAGE ALARM for 25% LOWAIR PRESSURE:

The DORAN **360M** shows you a different alarm when one of your tire's pressure drops below 25% of the baseline tire pressure. For a base line pressure of 35 psi, the Second Stage alarm would occur at 26 psi.

A Second Stage alarm is displayed as:

- The tire icon on the left side of the screen will indicate which tire is low.
- The pressure of the low tire will be displayed with the "L" icon.
- A red warning light with a low tire icon will flash twice per second (Figure 4-4).
- An audible beep will be heard.
- If the auxiliary red warning light is also attached to the monitor, it will also flash twice per second.
- This warning will continue until one of the buttons is pressed and at this time the beeper will
  be turned OFF, but the warning light(s) will continue to glow until the low-pressure fault is
  corrected.

NOTE: If both tires are low in either of the alert modes, the monitor will do the same as stated above except that it will cycle between the front and rear tires to display current low pressures of both tires.

When the low pressure light illuminates, STOP and check your tire(s) as soon as safely possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the motorcycle's handling and stopping ability.



## C. Programming Modes

Your DORAN **360M** comes already programmed and the baseline pressures for both Front and Rear tires are both set at 35 psi. We recommend that you set the baseline pressure at the same pressure as your recommended Manufacturers Operating Tire Pressures (see Baseline Air Pressure Programming on page 12).

The National Highway and Traffic Safety Administration considers a tire flat when the pressure is 25% below the tire manufacturers recommended operating pressure.

The DORAN 360M allows you to:

Program a Sensor

Delete a Sensor

Set a Baseline Pressure

Change unit of Measure from psi to Bar or kPA

(Note: the programming mode requires that the operator move sequentially through the following steps.)

Note: The  $\overline{P}$  and  $\overline{S}$  used to identify the buttons are only identifiers. They do not hold a significant value or meaning.

1. <u>Programming a Sensor</u> (If sensors are already programmed to the monitor this section will be bypassed and you will go into "Baseline Air Pressure Programming" when P is pressed for 5 seconds to enter into the Programming Modes.)

If you need to install a new sensor to a wheel that already has a sensor programmed to it, you will need to delete the existing sensor before a new sensor can be programmed (See item 3. in this Section "Sensor Deletion"). When the monitor has been turned ON and the monitor has not yet received the new sensor signals or they have been DELETED from the monitor it will display "nsP" (see Figure 5-1 and 5-2) for "No Sensor Programmed".



Figure 5-1



Figure 5-2



Look at the sensor and write down the last three digits of the sensor ID code as shown in **Figure 5-3**. If you are replacing a sensor, please write down this new sensor ID code on the front page of the manual to replace the ID code of the sensor being replaced.



Figure 5-3

Last three digits



Figure 5-4



Figure 5-5



Figure 5-6



Figure 5-7

- a. In Normal Operation mode, press putton for 5 seconds to enter the programming mode, as shown in Figure 5-4.
- b. Press Pto start to program the first digit. The left digit of the LCD display will begin to flash.
- c. Press the sutton to adjust the digit to the desired number and press the button again to confirm it, as shown in **Figure 5-5**.
- d. At this time, the second digit will flash, press the S button to adjust the digit and press P again to confirm it, as shown in Figure 5-6.
- e. The third digit will flash next. Press S to adjust the digit, as shown in **Figure 5-6**.
- f. When the third digit of the Sensor ID Code for the front wheel has been adjusted in **Figure 5-7**, press the P button to return to the first digit. The system will repeat the above steps. The user can re-set/adjust the ID code again if needed.
- g. Press the putton for 5 seconds. All of the 3 adjusted digits will be saved as entered and the screen will shift to the sensor ID programming mode for the other wheel. The process can be repeated if both sensors need to be entered.
- h. You will now move into the Baseline Air Pressure Programming mode.



## 2. Baseline Air Pressure Programming

NOTE: This section will be entered automatically when the P button is pressed for 5 seconds to enter the program mode when sensors are already programmed to the monitor.

NOTE: To skip this section you will need to press the Pbutton until the pressure for the front tire flashes twice and moves to the rear tire position. Press the Pbutton until the pressure for the rear tire flashes twice and moves to the Delete Sensor section. "F-d" will be displayed.

The baseline pressure has been set in the factory at 35-psi. We recommend that you set the baseline pressure at the same pressure as your recommended Manufacturers

Operating Tire Pressures. If you want to change the baseline pressure, or a new sensor is programmed, then follow the procedure below.

\*\*\*The same process is used to program both the baseline air pressure and the ID Code.\*\*\*



Figure 6-1



Figure 6-2



Figure 6-3

- a. Press P for **5 seconds** to enter the Baseline Air Pressure Programming mode as shown in the **Figure 6-1**.
- b. Press Pto start to program the first digit. The first digit of the LCD display will begin to flash.
- c. Press the S button to adjust the digit to the desired number and press the P button again to confirm it, as shown in Figure 6-2. At this time, the second digit will flash.
- d. At this time, Press the S button to adjust the digit and press P again to confirm it, as shown in Figure 6-3.
- e. In the KPa and Bar unit of measure, there are 3 digits. When the third digit of the Baseline Air Pressure for the front wheel has been adjusted in KPa or Bar, press the P button to confirm it.
- f. When finished with that wheel, press the P button for 5 seconds. All of the 3 adjusted digits will be saved as entered, and the screen will shift to the Baseline Air Pressure programming mode for the other wheel.
- g. Follow steps b. through f. above to change the baseline pressure for the second wheel.
- h. After the baseline pressure for both of the wheels are set, press the P button for 5 seconds to save all the information and enter the programming mode for Sensor Deletion.



#### 3. Sensor Deletion

NOTE: To enter directly into this section you must press the P button for 5 seconds then press the P button again until the pressure flashes twice for the front tire. Then press the P button again until the pressure for the rear tire flashes twice and a F-d is displayed. You will now be in the sensor delete mode.

NOTE: (To skip this section and go to Pressure Unit Programming, press the P button momentarily, a pressure unit that has previously been selected will be displayed.)



Figure 7-1



Figure 7-2

- (a). The mode for DELETING the sensor on the front wheel will be displayed first (see Figure 7-1).
- (b). The user can Press the S button to shift the mode to the rear Wheel to DELETE the sensor (see Figure 7-2).
- (c). Choose the wheel position that you want to DELETE the sensor. Press the P button for 5 seconds to DELETE the sensor and the screen will shift to the Sensor ID Programming interface of This sensor automatically.

## 4. Pressure Unit Programming (Preset from the factory for PSI)

NOTE: To enter directly into this section you must press the P button for 5 seconds then press the P button again until the pressure flashes twice for the front tire. Then press the P button again until the pressure for the rear tire flashes twice and a F-d is displayed. Press the P button once more to enter the Pressure Unit Programming mode. A pressure unit of measure will be displayed.

NOTE: If you do not want to change the Pressure Unit Programming, press the P button briefly. The screen will then show "END". Press the P button again briefly and you will exit the Programming mode and return to the Normal Operation Mode.

## **Function and Operation**



The DORAN 360M has 3 kinds of pressure units (PSI, KPa and Bar), as shown in the Figures below:







Above pictures show the display in Baseline programming mode.







Above pictures show the display as it appears when programming the pressure unit.

- a. Press the S button to switch the pressure unit between PSI, KPa and Bar.
- b. When the unit of measure you need appears on the display, press the P button for **5 seconds** to confirm the unit of measure. The system will move to the "END" mode.

## 5. END Mode



Under END mode, pressing the putton will allow the system to exit the programming modes and return to the Normal Operation mode. If no buttons are pressed the monitor will automatically return to normal operation mode.

## Frequently Asked Questions and Answers!



- Q. Why is it that when I start my motorcycle I get dash lines in the monitor for a while and then the pressures show up?
- A. You have wired your monitor to a switched 12-volt power supply and the monitor comes on with the motorcycle. When this happens the monitor will have to receive a new reading from the sensors in order to display the proper information. The sensors only send a signal every 6 minutes. Thus, it will depend on when the last radio frequency ( "RF") signal was sent compared to when the power was turned on as to how long it will take to have a new reading. It should not take more than 7 minutes to receive the proper update.
- Q. When riding my motorcycle I occasionally see the 3 dashes (---) appear. Do I have a problem with my system?
- A. No. The signal that is transmitted is a RF signal and is much like a cell-phone signal. The FCC requires us to allow all other RF signals to interfere with our signals and this can cause the monitor to occasionally miss a transmission from the sensors. If this persists then you could have a damaged sensor or the batteries could be weak.
- Q. Do I have to install the remote LED warning light for the system to operate properly?
- A. No. The LED warning light is an optional method of warning the driver of an alert. The user can hide the monitor and still be notified by the Red LED light. It can be used together with the monitor for additional visual warnings for the driver.
- Q. Do I have to install the sensors on the inside of my wheels?
- A. No. You can install the sensors on the exterior of the factory valve stem. Be sure to test that the sensors will clear all of the components around the wheel before riding the motorcycle. A lot of people start out with the sensors on the outside of the wheels and then when they purchase new tires they have the sensors installed on the inside of the wheels. It is your choice.
- Q. I have too much wire left over after I have routed my LED warning light to where I wanted it. Can I cut the wire and re-attach the ends?
- A. Yes. The wire has a tracer on one side so you can be sure to re-attach the wires properly. We suggest that you solder the wires back together when you have figured the proper length that you need and use shrink-tube to re-seal the wire from the moisture and the elements that you may encounter on the road.



- $\checkmark$  Always fill your tires at ambient temperature. Ambient temperature is between 0  $^{\circ}$ C (32°F) and 40  $^{\circ}$ C (104°F).
- √ Filling of tires should occur while the tires are cold (e.g., in the morning). Filling the tires after they have sat in the hot sun will cause the system to give false alerts.
  - For example: Tires that are set at a 35-psi pressure on a 70+ degree afternoon can show a loss of 8 to 12% air pressure on a cold 40 degree morning. This could be just enough to cause the monitor to send out an alert of low pressure. The pressure for that temperature is actually low and the tires could be filled to the desired pressure. However, in extreme heat the tire's pressure will increase and could be higher than what your tire needs.
- Look at the motorcycle manufacturer's suggested pressures in your owner's manual or contact your motorcycle dealer for more information.
- When riding your motorcycle you will notice that your air pressure increases a bit as you drive. It is not uncommon to see an 8 to 12% increase in tire pressure with normal driving.
- √ Leaning into a lot of excessive turns could cause the air pressure to increase even more.



#### **SENSOR**

Sensor Transmit Range Approx. 40' (line of sight)

Operating Frequency
Operating Temperature Range
Storage Temperature Range
Sensor Weight
Sensor Dimensions
434.1 MHz FM
-40F to +185F
-40F to +185F
Approx .68 oz
-40F to +185F
-40F to +

Sensor Batteries Internal, non-rechargeable Sensor Pressure Range 10 to 87-psi +/- 1.5 psi

Sensor Low Voltage Shutdown 2.2 Volts

#### MONITOR

Monitor Power Requirements 12 VDC;

Typically draws 30 mA in standby.

Less than 55 mA when LEDs are on.

Operating Temperature -22 F to +167 F Storage Temperature -31 F to +176 F

Monitor Dimensions 1.7" w x 1.95" h x 1.4" d

Monitor Weight 2.2 oz

Monitor Tire Positions 2 positions

Sensor Alarm Trigger Settings 12.5% and 25% below the Baseline tire inflation level

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 THAT MAY CAUSE UNDESIRED OPERATION

## LIMITED WARRANTY



**ONE YEAR LIMITED WARRANTY:** Subject to the limitations and exclusions set forth in this Limited Warranty, the DORAN 360M is warranted against defects in material or workmanship that result in a product failure under normal use during the one-year period following the date of purchase by the original end-user. This Limited Warranty applies only to claims made by the original end-user and cannot be assigned, transferred or conveyed to any subsequent users. The exclusive remedy for any product determined by DORAN Mfg. LLC to be defective within such period shall, at the sole option of DORAN Mfg. LLC, be the repair or replacement of such defective product, or the refund of the purchase price therefor. No other remedy shall be available.

**EXCLUSIONS FROM COVERAGE:** This Limited Warranty does not apply to any claims arising from misuse, abuse, unauthorized repair or alteration, circumstances where the DORAN 360M is improperly installed or improperly wired contrary to the DORAN 360M product instructions; or damage or defect attributable to fire or other casualty, including, without limitation, acts of God or exposure to abrasive or corrosive materials or pollutants, or attributable to collision or other accidents involving motorcycles upon which the DORAN 360M is installed.

LIMITATIONS: THIS LIMITED WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ALL OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF DORAN MFG. LLC. THIS LIMITED WARRANTY SPECIFICALLY EXCLUDES ALL INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES. IN NO EVENT, AND FOR NO CAUSE WHATSOEVER, SHALL DORAN MFG. LLC HAVE ANY LIABILITY TO ANY PARTY IN EXCESS OF THE ORIGINAL PURCHASE PRICE OF THE PRODUCT IN QUESTION.

**EXCLUSIVE AGREEMENT:** This Limited Warranty is a complete and exclusive statement of the warranties which apply to the DORAN 360M. There are no express or implied warranties beyond those expressly stated above. No employee, agent, dealer or other person is authorized to give any warranties on behalf of DORAN Mfg. LLC, except as authorized in writing.

STATUTE OF LIMITATIONS. In purchasing the DORAN 360M you agree that any action for breach of contract or warranty must be commenced within one year after the cause of action has accrued.

## LIMITED WARRANTY



PROCEDURE: Products determined to be defective within the terms of this Limited Warranty should be returned to Doran Mfg. LLC, transportation prepaid. Call DORAN Mfg. LLC for return authorization. No unauthorized returns shall be accepted. Sender is responsible for all costs incurred in the removal or reinstallation and shipping of the returned product. A copy of the sales slip from the point of purchase must accompany the returned product.

**APPLICABLE LAW:** The internal laws of the State of Ohio, U.S.A. shall govern this Limited Warranty, and the exclusive venue for any dispute in connection with the purchase or use of the product shall be the state and federal courts of general jurisdiction located in Hamilton County, Ohio U.S.A.

#### SPECIAL NOTICE TO CONSUMERS:

If you have purchased this product for person, family or household use:

- (1) Some states do not permit disclaimers or term limitations of implied warranties so that the disclaimers and limitations in this Limited Warranty may not apply to you:
- (2) Some states do not permit the exclusion or limitation of incidental or consequential damages so that the exclusions and limitations in this Limited Warranty may not apply to you: and
- (3) This Limited Warranty gives you specific legal rights and you may have other rights that vary from state to state

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