

Slope Sensor Kit

Zero-Turn-Radius Riding Mower

Model No. 79400

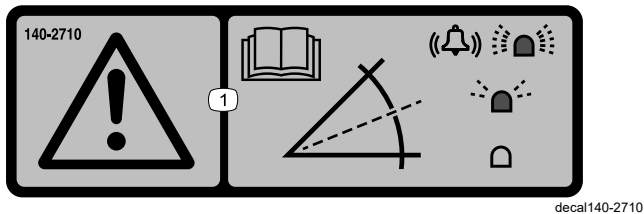
Installation Instructions

Safety

Safety and Instructional Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



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1. Warning—read the *Operator's Manual*; a fast flashing light and alarm sounding indicates a steep slope; a slow flashing light indicates a moderate slope; no light indicates normal operating conditions.



Installation

Loose Parts

Use the chart below to verify that all parts have been shipped.

Description	Qty.	Use
No parts required	–	Prepare the machine.
Sensor module	1	Install the kit.
Bolt	2	
Nut	2	
Wire harness	1	
Flat light bracket (machines without suspension system only)	1	
Bent light bracket (machines with suspension system only)	1	
Self-tapping screw	2	
Alarm	1	
LED light	1	
Magnet	4	
Decal	1	Install the decal.
No parts required	–	Calibrate the sensor.

Note: Determine the left and right sides of the machine from the normal operating position.

Refer to [Figure 1](#) to identify the connectors on the wire harness.

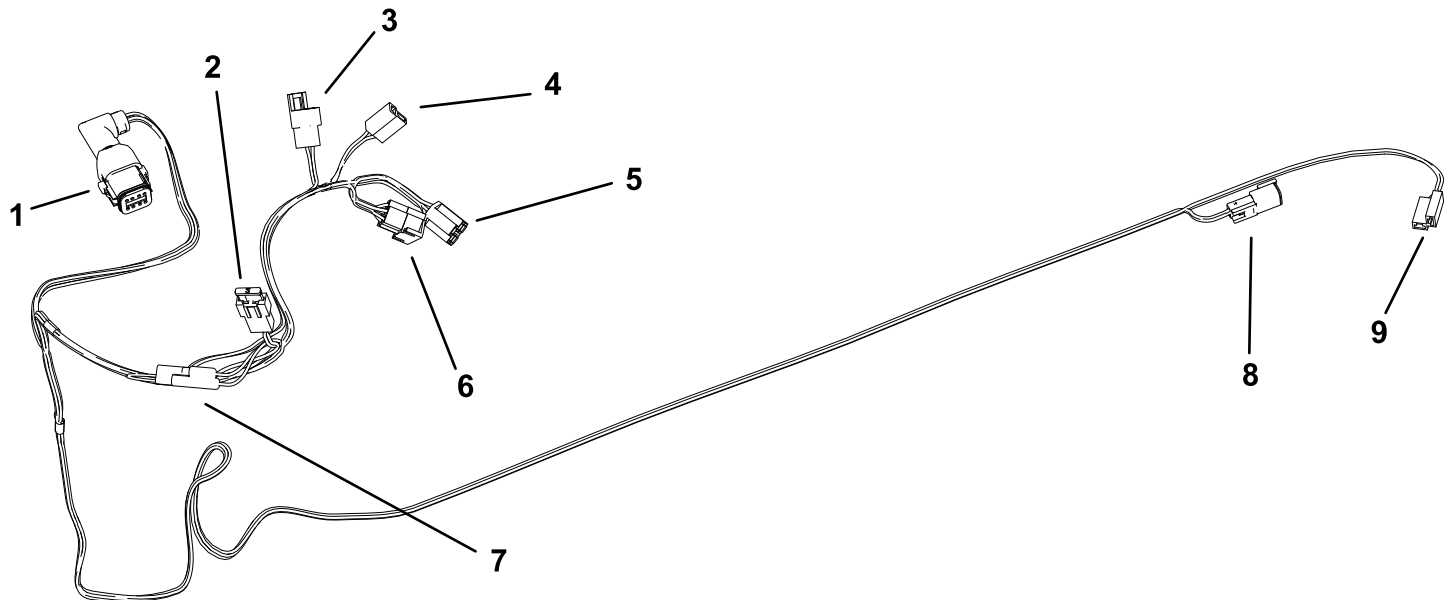


Figure 1

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- | | | |
|------------------------------|-------------------------------|---------------------------|
| 1. Slope sensor connector | 4. Hour meter “out” connector | 7. Calibration connectors |
| 2. Fuse (2A) | 5. Key switch “out” connector | 8. Light connector |
| 3. Hour meter “in” connector | 6. Key switch “in” connector | 9. Alarm connector |

Preparing the Machine

1. Park the machine on a level surface.
2. Disengage the blade-control switch.
3. Move the motion-control levers outward to the NEUTRAL-LOCK position.
4. Engage the parking brake (if applicable).
5. Shut off the engine and remove the key.
6. Raise the rear of the machine and support it using jack stands rated for your machine.

⚠ WARNING

Mechanical or hydraulic jacks may fail to support the machine and cause serious injury.

Use jack stands when supporting the machine.

7. Raise the seat.
8. Disconnect the battery. Disconnect the negative terminal first and the positive last.

Note: When connecting the battery after installing the kit, connect the positive terminal first and the negative last.

Installing the Kit

Installing the Sensor Module

1. Place the sensor module on a flat surface on the right side of the crossmember frame, toward the control pane (Figure 2). Mark the locations of the 2 holes.

Note: You may use existing holes in the frame and drill fewer holes.

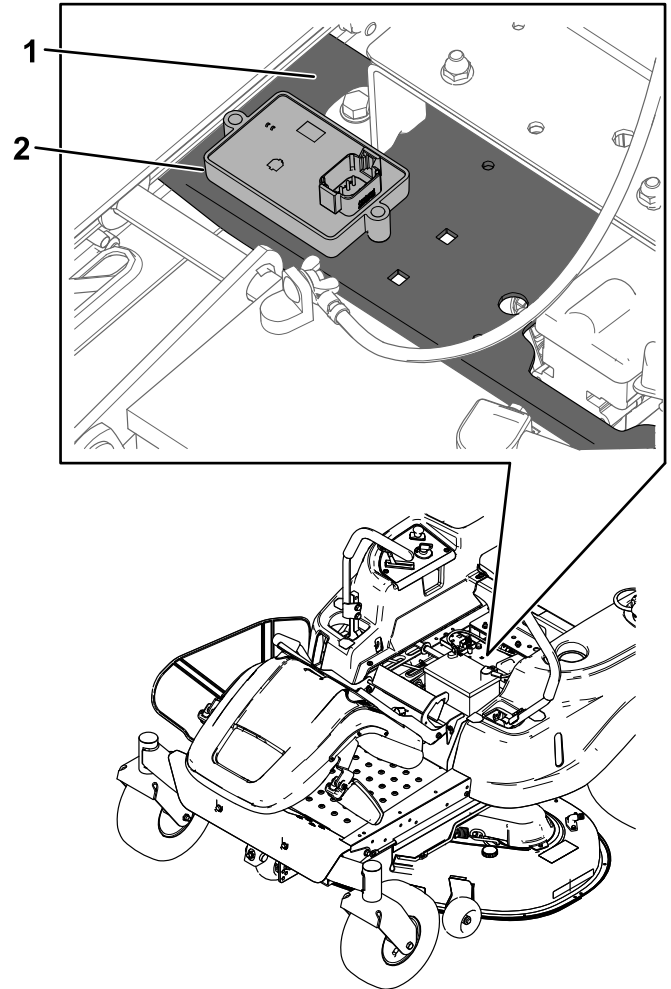


Figure 2

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1. Crossmember frame
2. Sensor module

2. Remove the sensor module and drill the 2 holes (7 mm or 9/32 inch).
3. Connect the slope sensor connector from the wire harness to the sensor module.

Important: Ensure that the tabs on the slope sensor connector align with the slots in the sensor module.

Connecting the Wire Harness in the Control Panel

1. Remove the 3 screws securing the control panel, then remove the lift the control panel to access the wire harness (Figure 5).

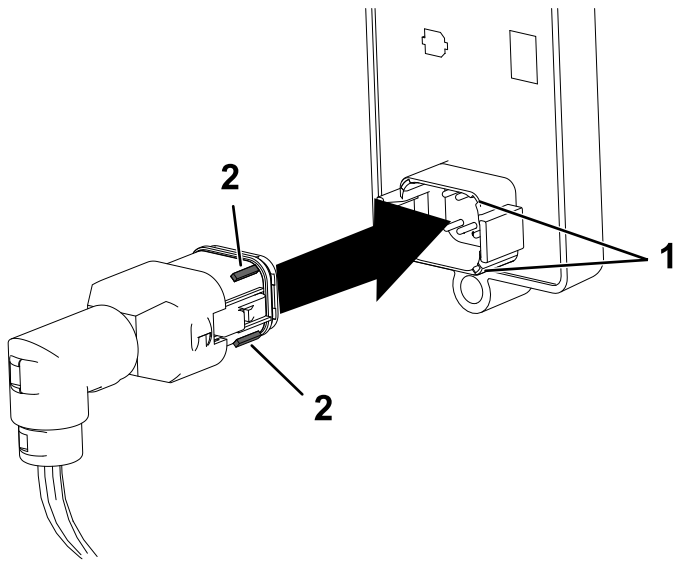


Figure 3

1. Slots in sensor module
2. Tabs on slope sensor connector

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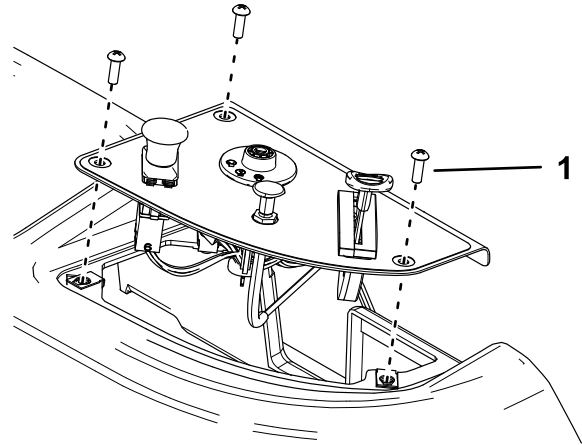


Figure 5

1. Screw

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4. Install the sensor module under the crossmember frame using 2 bolts and 2 nuts (Figure 4).

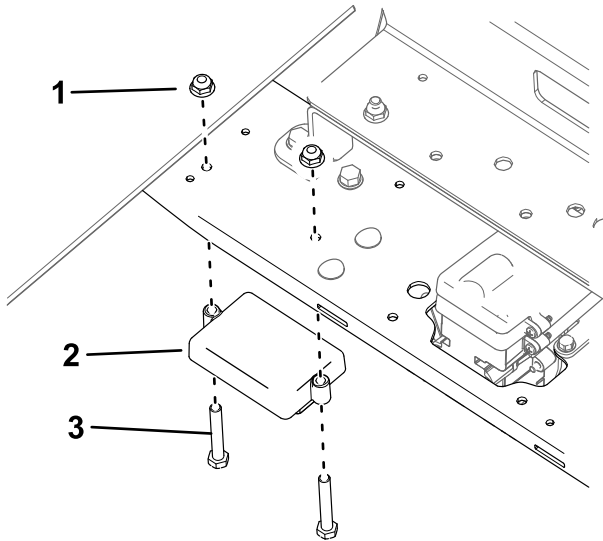


Figure 4

1. Nut
2. Module
3. Bolt

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2. Disconnect the wire harness from the key switch (Figure 6).

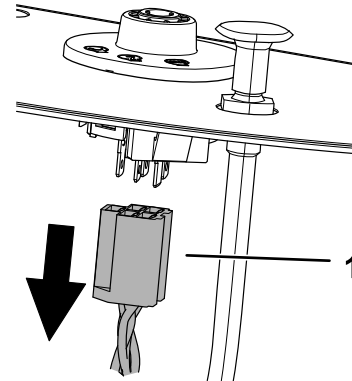


Figure 6

1. Key switch connector from machine wire harness

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3. Connect the key switch "in" connector from the kit wire harness to the key switch (Figure 7).

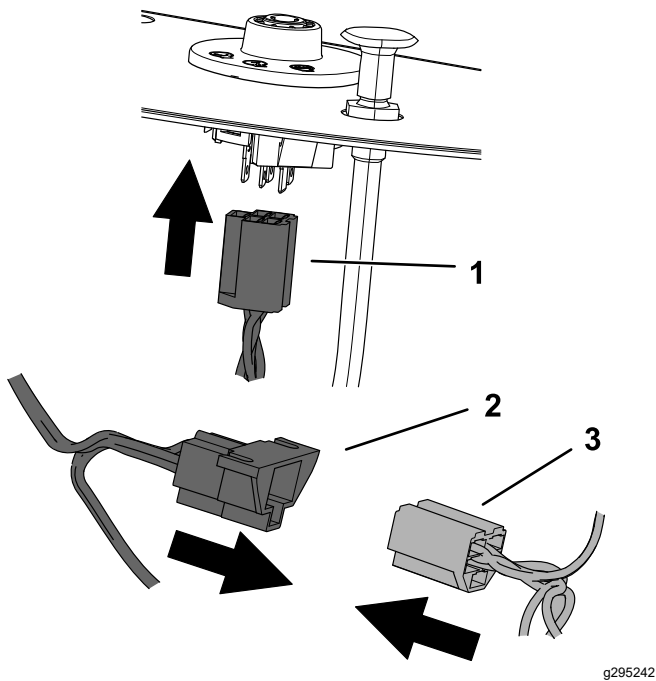


Figure 7

1. Key switch "in" connector
 2. Key switch "out" connector
 3. Key switch connector from machine wire harness
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4. Connect the key switch "out" connector to the key switch connector from the machine wire harness (Figure 7).

Connecting the Hour Meter Connectors

For machines without a hour meter, skip to step 3.

Note: Figures show machines with the hour meter located behind the seat. The hour meter for machines with a suspension system is located on the control panel.

1. Disconnect the machine hour meter connector from the hour meter (Figure 8).

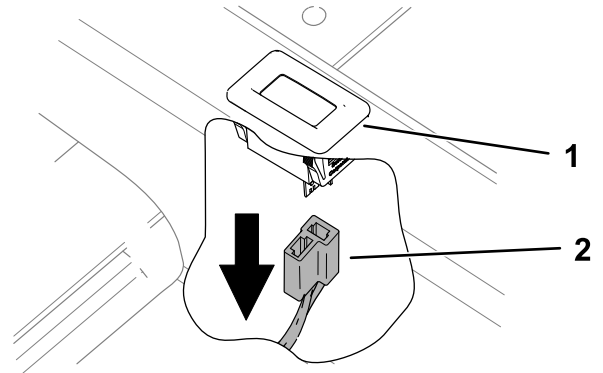


Figure 8

1. Hour meter
2. Hour meter connector from machine wire harness

2. Connect the hour meter "in" connector from the kit wire harness to the hour meter.

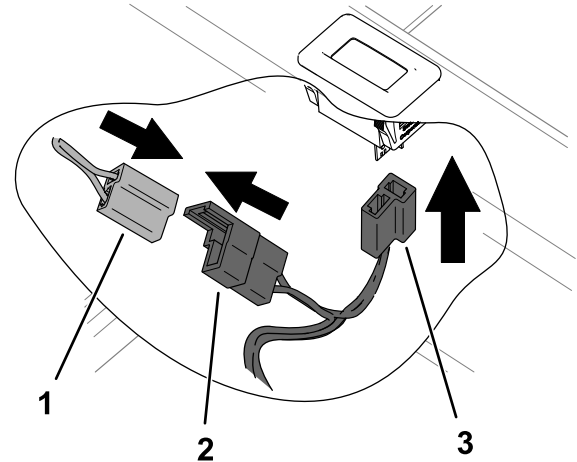


Figure 9

1. Hour meter connector from machine wire harness
2. Hour meter "out" connector from kit wire harness
3. Hour meter "in" connector from kit wire harness

3. Connect the hour meter "out" connector from the kit wire harness to the hour meter connector from the machine wire harness (Figure 9).

Note: For machines without a hour meter, the hour meter connector is taped to the main wire harness.

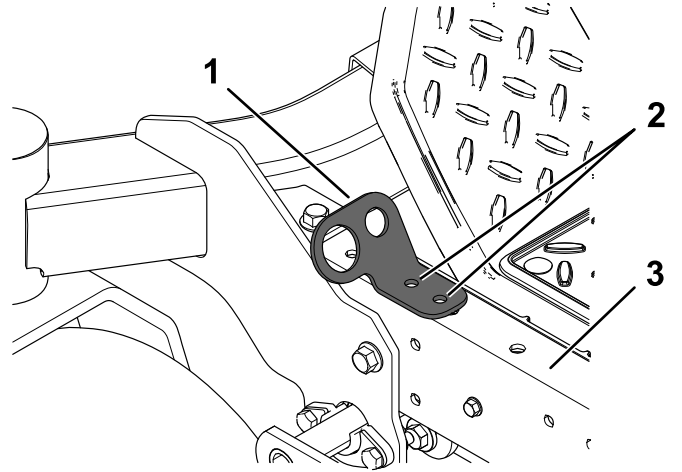
4. Install the control panel and secure it with the 3 screws previously removed (Figure 5).

Installing the LED Light and Alarm

For machines with a suspension system, use the bent light bracket. For machines without a suspension system, use the flat light bracket.

1. Use the light bracket as a template, and drill 2 holes (7 mm or 9/32 inch).

For machines with a suspension system, drill the holes into the frame rail, toward the front (Figure 10).



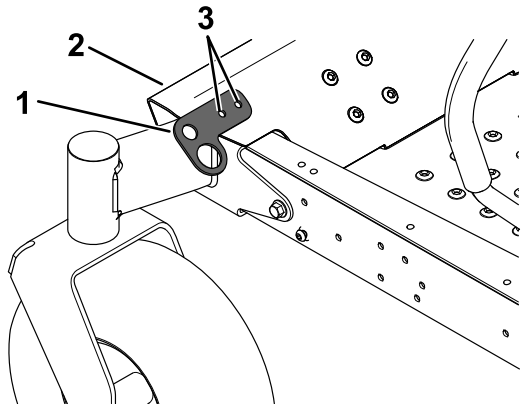
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Figure 10

Machines with a suspension system

1. Bent light bracket
2. Drill here.
3. Frame rail

For machines without a suspension system, drill the holes into the left side of the footrest (Figure 11).



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Figure 11

Machines without a suspension system

1. Flat light bracket
2. Footrest
3. Drill here.

2. Secure the bracket to the machine using 2 self-tapping screws.

- Remove the plastic nut from the alarm and use it to install the alarm to the bracket (Figure 12).

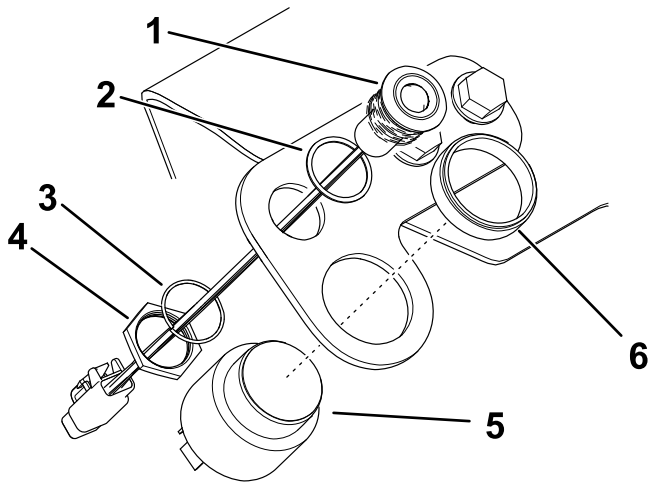


Figure 12

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- | | |
|----------------|----------------|
| 1. LED light | 4. Nut |
| 2. Gasket | 5. Alarm |
| 3. Lock washer | 6. Plastic nut |

- Remove the nut, lock washer, and gasket from the LED light and use them to install the light to the bracket (Figure 12).

Routing the Wire Harness to the Light and Alarm

- Route the wire harness under the crossmember, under the fuel tank, and along the left frame rail to the bracket (Figure 13). Use the magnets to secure the wire harness to the machine, away from moving parts.

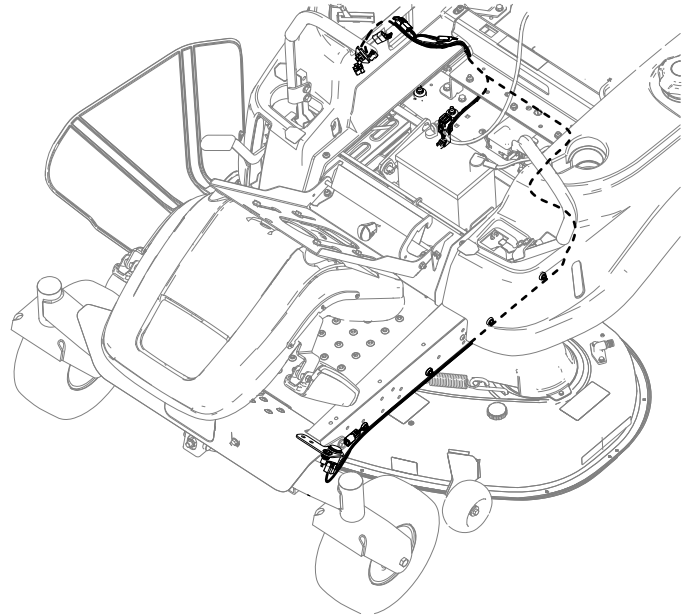


Figure 13

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- Connect the light connector to the light and the alarm connector to the alarm (Figure 14).

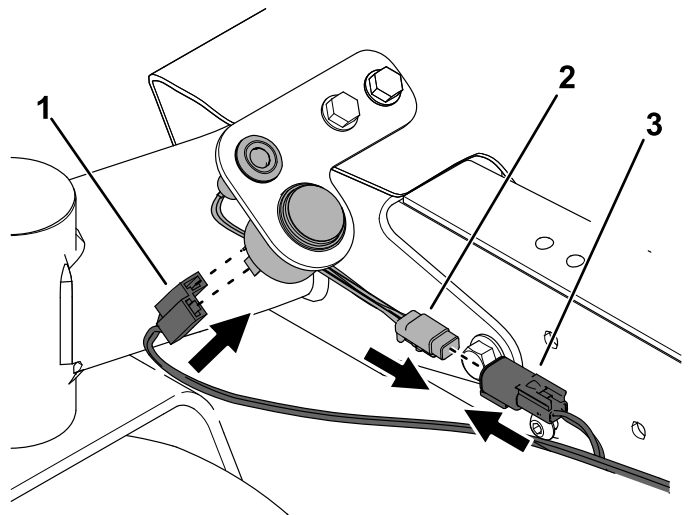


Figure 14

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- | | |
|--------------------|--------------------------------------|
| 1. Alarm connector | 3. Light connector from wire harness |
| 2. Light connector | |

Installing the Decal

Install the decal on the frame rail as shown in [Figure 15](#).

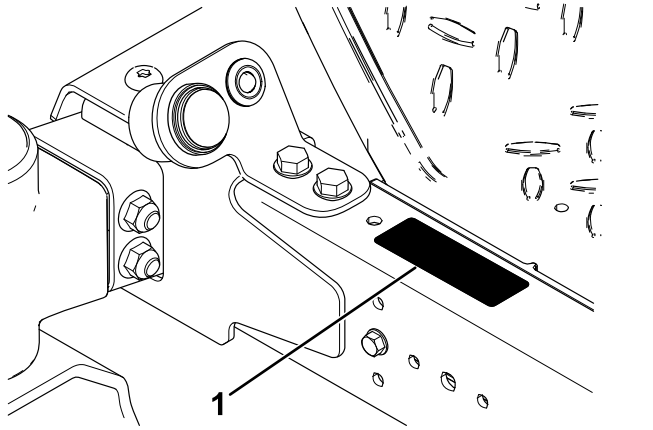


Figure 15

Machines with a suspension system shown

1. Decal

Calibrating the Sensor

1. While on a flat surface, remove the plug from calibration connectors.

Note: The plugs are located between the hour meter and key connectors.

2. Plug the connectors together.
3. Turn the ignition key to the ON position, but do not start the engine.

Note: The LED light blinks as the sensor calibrates.

4. When the light no longer blinks, turn the ignition key to the OFF position.
5. Disconnect the calibration connectors and install the plug onto the connectors.
6. Lower the seat.

Operation

Using the Slope Sensor

When you start the machine, the LED light illuminates for 5 seconds to indicate that the sensor is functioning properly.

The light and alarm indicates the severity of the slope:

- No light—normal operating conditions
- Slow, flashing light—moderate slope
- Fast, flashing light and audible alarm—steep slope; proceed to a more shallow slope.

⚠ WARNING

Slopes are a major factor related to loss-of-control and tip-over accidents, which can result in severe injury or death.

Use extreme caution when operating the machine on a slope.