



Key Start Kit

Workman® MD/MDX Utility Vehicle

Model No. 121-6338

Installation Instructions

This kit is for a 2013 Workman MD with a serial number of 313000401 to 316999999.

This kit is for a 2013 Workman MDX with a serial number of 313000001 to 316999999.

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

Loose Parts

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

Procedure	Description	Qty.	Use
1	No parts required	–	Prepare the machine.
2	Key-start module Bolt (1/4 x 1-3/8 inch) Flange nut (1/4 inch) Front, key-start harness	1 1 1 1	Install the key-start module and the front, key-start harness.
3	Neutral switch Screws (#4 x 3/4 inch) Speed nut Jumper harness	1 2 1 1	Install the neutral switch.
4	Rear, key-start harness (MD and MDX) Idle screw (MDX only) Spring (MDX only)	1 1 1	Install the rear, key-start harness and throttle-body adjuster.
5	No parts required	–	Adjust the low idle.
6	Shim	2	Adjust the secondary clutch.



1

Preparing the Machine

No Parts Required

Procedure

1. Park the machine on a level surface, engage the parking brake, stop the engine, and remove the key.
2. Open the hood.

2

Installing the Key-Start Module and the Front, Key-Start Harness

Parts needed for this procedure:

1	Key-start module
1	Bolt (1/4 x 1-3/8 inch)
1	Flange nut (1/4 inch)
1	Front, key-start harness

Procedure

1. Secure the key-start module to the pedal-assembly frame using a bolt (1/4 x 1-3/8 inch) and a flange nut (1/4 inch) as shown in [Figure 1](#).

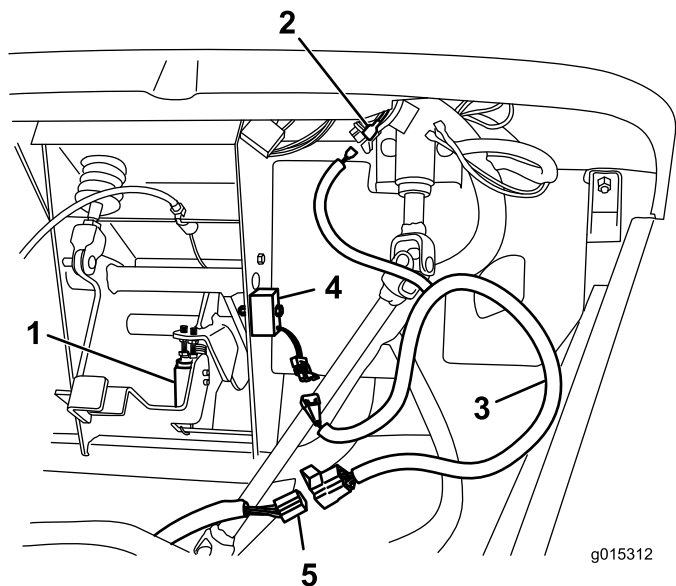


Figure 1

1. Pedal switch
 2. Open key-start-spade connector
 3. Front, key-start harness
 4. Key-start module
 5. Existing wire-harness connector
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2. Disconnect the existing wire-harness connector from the pedal switch ([Figure 1](#)).
 3. Locate the front, key-start harness ([Figure 1](#)) in the loose parts.
 4. Connect the front, key-start harness to the key-start module with the matching connector, and connect the opposite end to the existing wire-harness connector ([Figure 1](#)).
 5. Locate the lead from the existing wiring labeled Key Start ([Figure 1](#)).
 6. Connect the key-start lead on the front, key-start harness to the labeled lead on the vehicle ([Figure 1](#)).
- Note:** If the connector has a protective sleeve on it, cut the sleeve off before installing the connector.

3

Installing the Neutral Switch

Parts needed for this procedure:

1	Neutral switch
2	Screws (#4 x 3/4 inch)
1	Speed nut
1	Jumper harness

Procedure

1. Remove the 8 bolts and 8 nuts holding the seat base to the frame.
2. Remove the shift knob and the shift plate from the seat base.
3. Remove the seat base.
4. Assemble the switch to the right side of the shift assembly using 2 screws (#4 x 3/4 inch) and the speed nut ([Figure 2](#)).

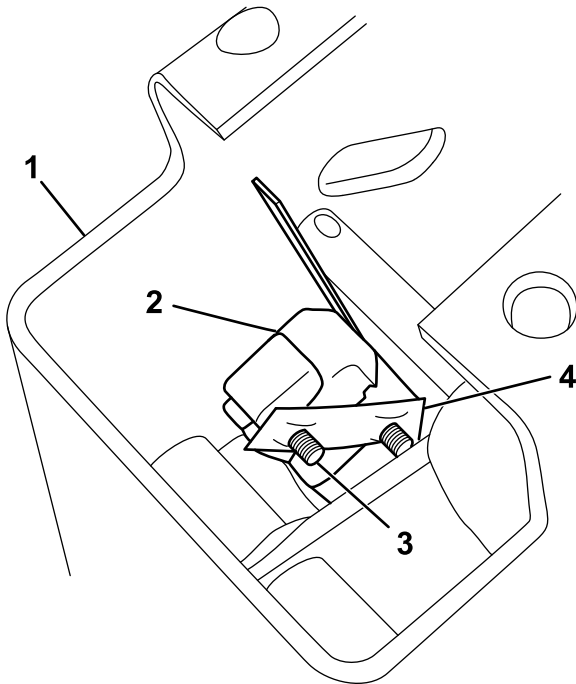


Figure 2

1. Shift-lever assembly
2. Switch
3. Screw
4. Speed nut

5. Connect the jumper harness to the switch and to the connector, with the blue and yellow wire, on

the vehicle harness near the shift lever ([Figure 3](#)).

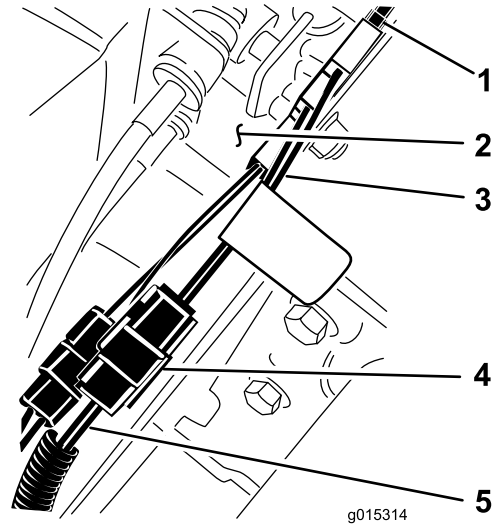


Figure 3

1. Switch
2. Shift-lever assembly
3. Jumper harness
4. Connector on the vehicle harness
5. Yellow and blue wires

6. Install the shift-lever assembly, the shift plate, and the knob to the seat base.
7. Install the seat base to the frame.

4

Installing the Rear, Key-Start Harness and the Idle Screw

Parts needed for this procedure:

1	Rear, key-start harness (MD and MDX)
1	Idle screw (MDX only)
1	Spring (MDX only)

Procedure

1. Lift the bed to access the engine compartment and secure it with the prop rod.
2. Remove the electrical cover located along the right side of the frame to gain access to the regulator and the wiring ([Figure 4](#)).

3. Disconnect the regulator from the vehicle harness and connect it to the rear, key-start harness (Figure 4).

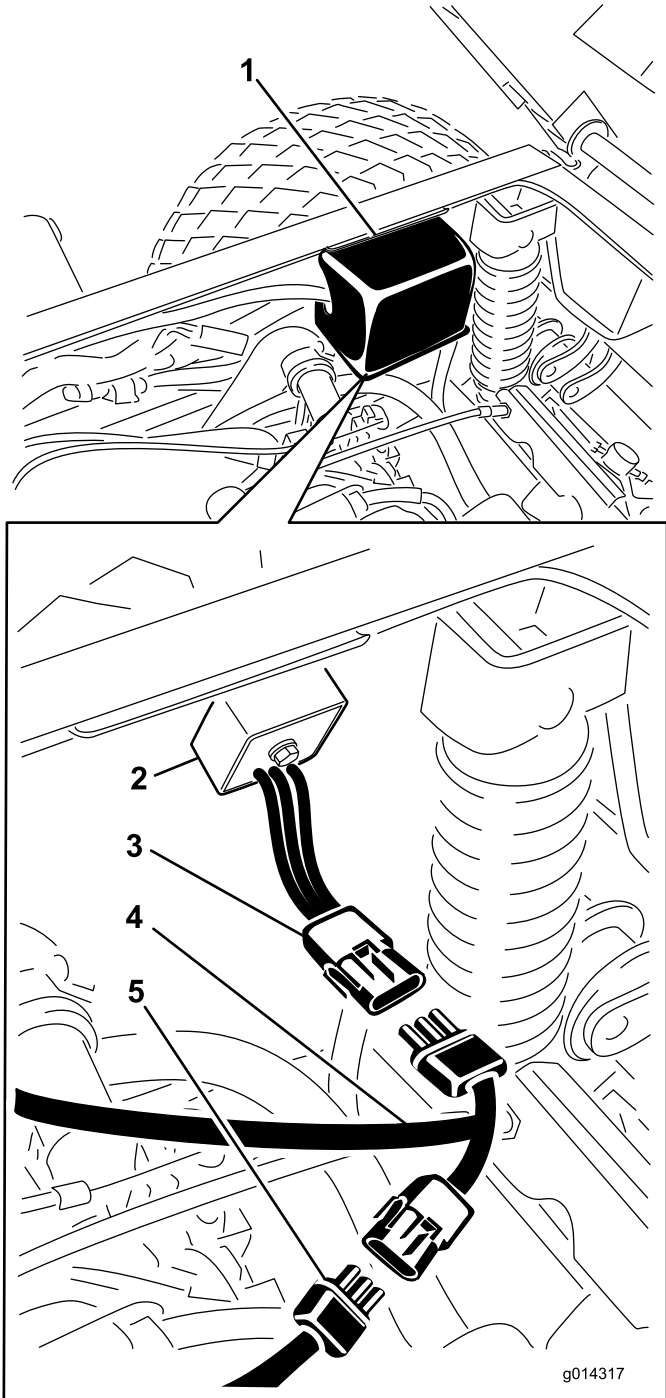


Figure 4

- | | |
|------------------------|----------------------------|
| 1. Electrical cover | 4. Rear, key-start harness |
| 2. Regulator | 5. Main wire harness |
| 3. Regulator connector | |

4. Connect the rear, key-start harness to the vehicle harness (Figure 4).
5. Route the rear, key-start harness along the frame with the existing wiring forward to the engine.

Note: Ensure that the harness travels between the air filter assembly and the right side of the vehicle frame.

6. Locate the engine-ignition module on the underside of the engine shroud (Figure 5).

Note: The module is on the forward end of the engine assembly.

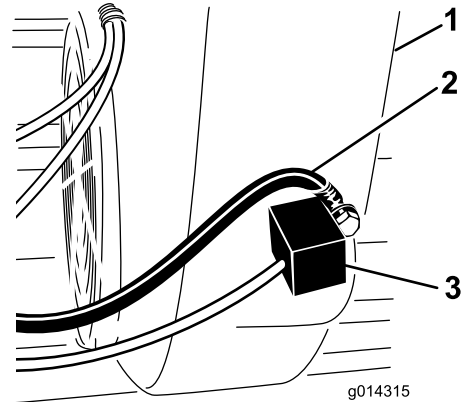


Figure 5
MDX Ignition Module

- | | |
|---|---------------------------|
| 1. Engine shroud | 3. Engine-ignition module |
| 2. Black ground wire with the ring terminal | |

7. Remove the bullet-style lead from the gray wire coming from the engine-ignition module and install the lead to the connector at the end of the rear, key-start harness that was routed forward (Figure 6).

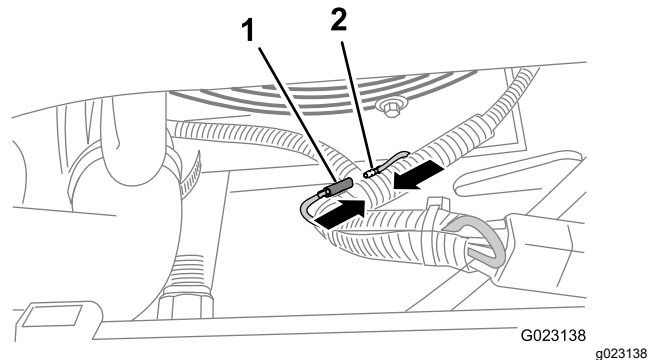


Figure 6
MD Ignition Wire

- | | |
|---|--|
| 1. Bullet connector, female (key-start-kit harness) | 2. Bullet connector, male (engine-ignition module) |
|---|--|

8. Tape the end of the gray wire.

Note: This wire will remain disconnected and the tape will prevent it from grounding.

9. **For MDX machines only:** Install the idle screw and the spring to the carburetor assembly at the throttle lever (Figure 7).

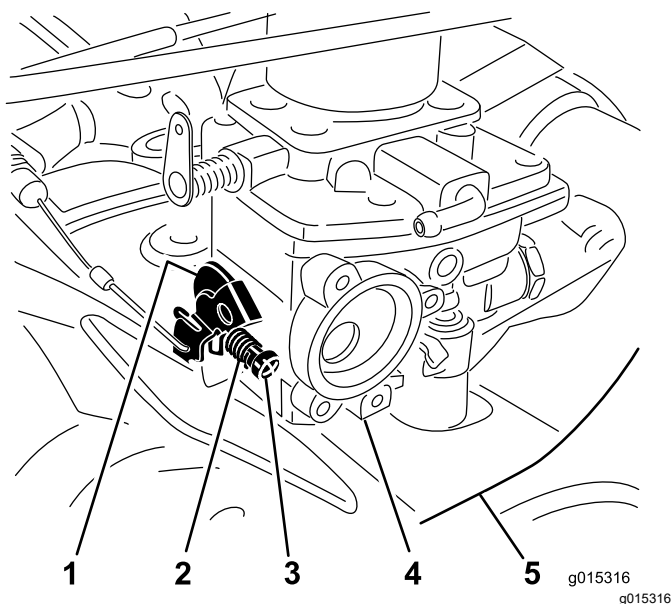


Figure 7
MDX Carburetor

- | | |
|-------------------|------------------------|
| 1. Throttle lever | 4. Carburetor assembly |
| 2. Spring | 5. Engine shroud |
| 3. Idle screw | |

-
10. Thread the screw into the throttle stop clockwise until it makes initial contact with the throttle lever, then turn the screw an additional revolution clockwise (Figure 7).

5

Adjusting the Low Idle

No Parts Required

Procedure

Adjust the idle speed of the engine after you have installed the throttle stop to ensure that the machine operates properly with the key switch.

1. Start the engine.
2. Adjust the idler screw to achieve a low idle of 1,050 to 1,150 rpm (Figure 7 and Figure 8).

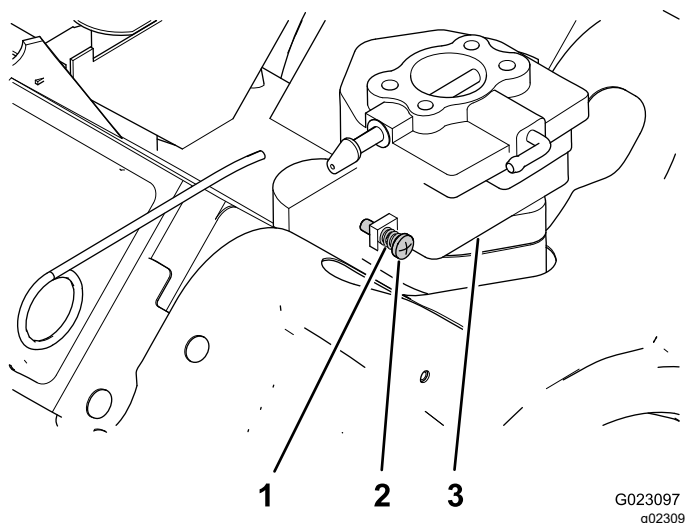


Figure 8
MD Carburetor

- | | |
|---------------|------------------------|
| 1. Spring | 3. Carburetor assembly |
| 2. Idle screw | |

-
3. Lower the bed and close the hood.

6

Adjusting the Secondary Clutch

Parts needed for this procedure:

2	Shim
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Procedure

If the unit still creeps in gear at low idle, add 1 or 2 shims to the secondary clutch to loosen the tension on the belt.

⚠ CAUTION

If the machine has been running, the muffler and exhaust system will be very hot and can cause serious burns if you touch them.

Allow the machine to cool completely before performing this procedure.

1. Park the machine on a level surface, engage the parking brake, stop the engine, and remove the key.
2. Lift the bed to access the engine compartment and secure it with the prop rod.
3. Disconnect the 2 springs securing the muffler to the exhaust system, remove the 2 fasteners securing the muffler to the frame, and remove the muffler (Figure 9).

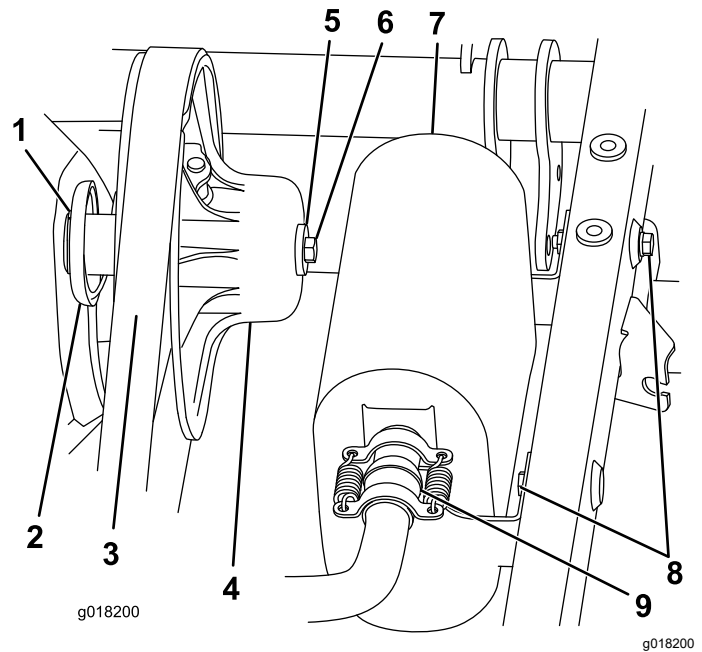


Figure 9

4. Remove the belt from the secondary clutch (Figure 9).
5. Remove the bolt and step washer securing the clutch and pull the clutch off the transaxle (Figure 9).
6. Turn the clutch around (Figure 10).

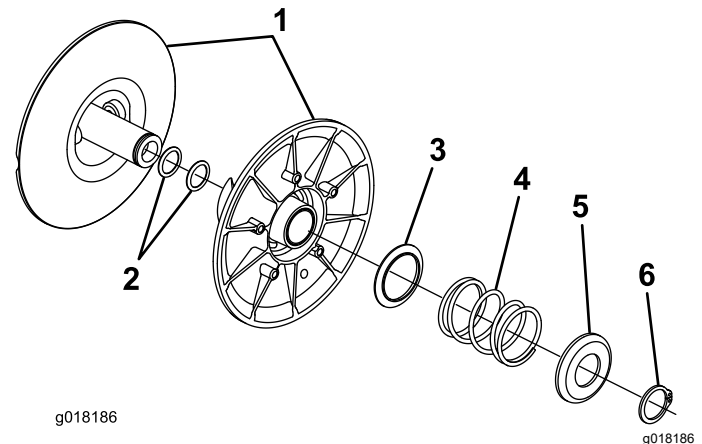


Figure 10

1. Secondary clutch
2. Shims
3. Inner-spring retainer
4. Spring
5. Outer-spring retainer
6. Retaining ring

7. Using the spring-compression tool (TOR-6027), compress the outer-spring retainer and spring inward relieving pressure on the retaining ring (Figure 10).
8. Remove the retaining ring and slowly release the spring pressure by removing the outer-spring retainer and the spring.

⚠ CAUTION

The spring is under considerable pressure and can spring outward if you remove the retaining ring without compressing the spring the first. This can throw parts at you or bystanders, causing injury.

Compress the spring before removing the retaining ring and release the spring pressure carefully and slowly.

9. Pull the 2 halves of the clutch apart (Figure 10).
10. Slide a shim onto the clutch shaft (Figure 10).
11. Assemble the clutch, using the spring compression tool (TOR-6027) to hold the spring, while securing it with the retaining ring.
12. Install the clutch onto the transaxle and secure it using the step washer and bolt removed previously.
13. Torque the bolt to 39 to 47 ft-lb (53 to 63 N-m).
14. Install the belt.
15. Install the muffler using the fasteners that you removed previously.
16. Lower the bed and test the machine.

Note: If the machine still creeps while in gear at low idle, repeat this procedure and install the second shim.



Count on it.