



Radiator Support Kit

Groundsmaster® 4000-D/4100-D

Model No. 107-4316

Form No. 3350-929

Installation Instructions

Note: This radiator support kit supercedes the original, one-piece radiator support.

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

Loose Parts

Note: Use the chart below to identify parts for assembly.

Description	Qty.	Use
Radiator top support	1	Installing the radiator
Radiator left-hand support	1	
Radiator right-hand support	1	
Base support	1	
Bolt, 5/16 x 3/4 inch	2	
Nut, 5/16 inch	2	
Installation instructions	1	Read before installing kit
Parts catalog	1	Use to order new parts

Preparing the Unit

1. Lower the cutting decks, stop the engine, set the parking brake, and remove the ignition key.
2. Unlatch and raise the engine hood.



Warning



Do not open the radiator cap or drain the coolant if the radiator or engine is hot.

- Pressurized, hot coolant can escape and cause severe burns.

3. Drain the coolant from the unit into a suitable container using the radiator drain. Refer to the Radiator section of your *Service Manual*.
4. Block or support the engine hood from behind the unit to avoid damaging the hood when removing the hood support rod.
5. Remove the clevis and hair pin securing the hood support rod to the hood. Remove the hood support rod. Retain all fasteners and parts.



Warning



Ethylene-glycol anti-freeze is poisonous.

- Dispose of the coolant properly, or store it in a properly labeled container away from children and pets.

6. Disconnect the overflow bottle hose from the radiator (Fig. 1).
7. Detach the air cleaner hose from the radiator support (Fig. 1).

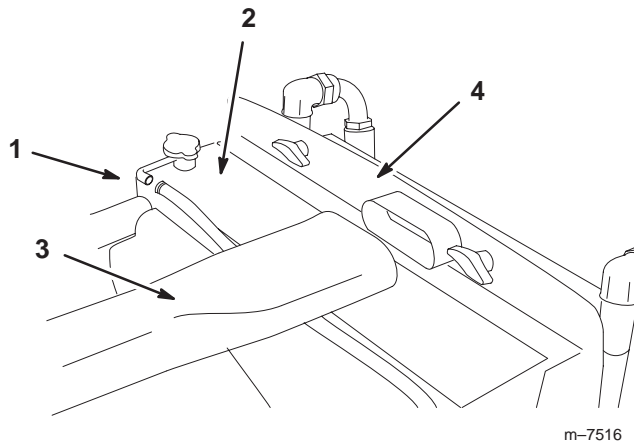


Figure 1

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| 1. Overflow hose | 3. Air cleaner hose |
| 2. Radiator | 4. Radiator support |

Removing the Radiator and Supports

1. Remove the knobs securing the oil cooler to the radiator support and pivot the oil cooler rearward (Fig. 2).

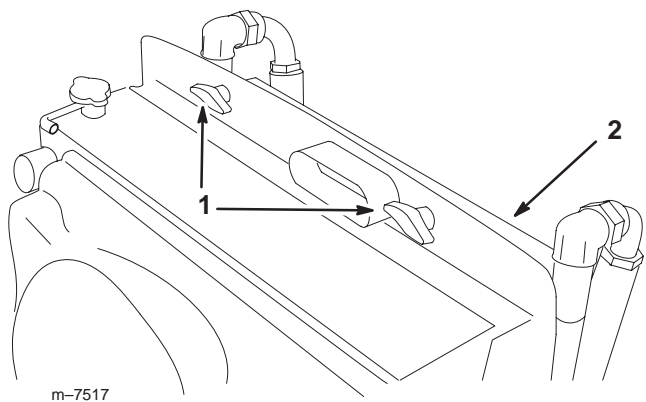


Figure 2

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| 1. Knobs | 2. Oil cooler |
|----------|---------------|

2. Disconnect the (2) coolant hoses from the radiator.
3. Remove the four bolts and four washers securing the shroud to the radiator. Retain all fasteners for later use.
4. Slide the shroud toward the engine, back over the fan, to gain access to the fan and clutch assembly.

5. Remove the bolts and lock washers securing the fan and clutch assembly to the engine. Remove the fan and clutch assembly. Save the fasteners and parts for later use.
6. Remove the shroud to make room for the removal of the radiator.
7. Remove the four bolts (5/16 x 5/8 inch) and lock nuts (5/16 inch) securing the radiator to the support (Fig. 3).

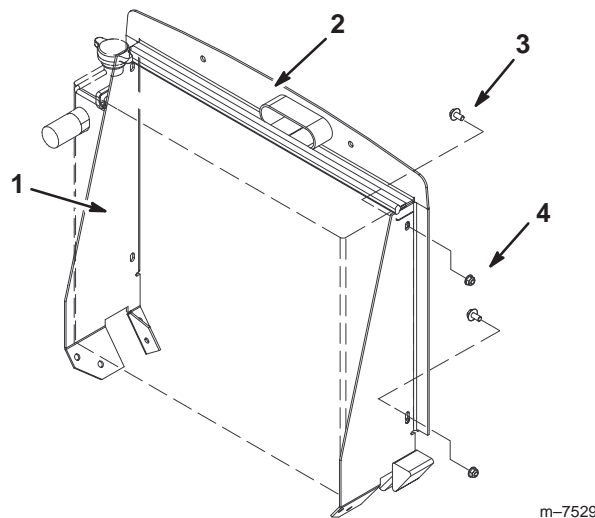


Figure 3

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| 1. Radiator | 3. Flange bolt, 5/16 x 5/8 inch |
| 2. Radiator support | 4. Locknut, 5/16 inch |

8. Remove the radiator (Fig. 3).
9. Remove the two flange bolts (5/16 x 5/8 inch) and the two lock nuts (5/16 inch) securing the upper radiator support to the base support (Fig. 4).
10. Remove the two flange bolts (3/8 x 1-1/4 inch) and the two lock nuts (3/8 inch) securing the upper radiator support to the frame. Remove the support and retain the fasteners for later use (Fig. 4).
11. Remove and retain the upper bulb seal and foam angles from the support. Discard the one piece support (Fig. 4).
12. Remove the flange bolts (1/4 x 5/8 inch) and the lock nuts (1/4 inch) securing the radiator base support to the vertical plates in the frame (Fig. 4).
13. Remove the radiator base support.
14. Remove and inspect the grommets, foam plugs and strips, and bulb seals from the radiator base support. Replace any items if necessary (Fig. 4).

Important Take care to remember the position and location of the plates, grommets and bulb seals as you remove the radiator assembly for proper installation of the radiator and new supports.

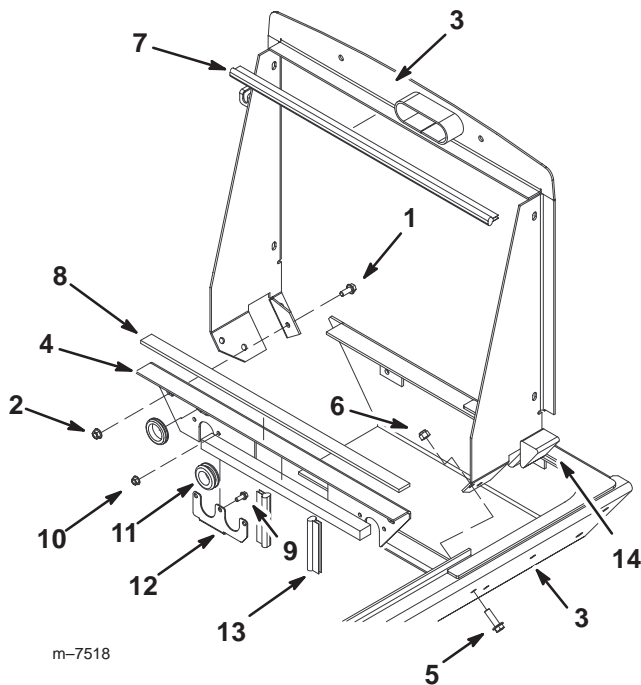


Figure 4

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| 1. Flange bolts, 5/16 x 5/8 inch | 7. Bulb seal, upper |
| 2. Lock nut, 5/16 inch | 8. Foam strip |
| 3. Radiator support, original | 9. Bolt, 1/4 x 5/8 inch |
| 4. Base support, radiator | 10. Lock nut, 1/4 inch |
| 5. Flange bolts, 3/8 x 1-1/4 inch | 11. Grommet |
| 6. Lock nut, 3/8 inch | 12. Base plate |
| | 13. Bulb seal, lower |
| | 14. Foam angle |

Installing the Radiator

1. Transfer the grommets, foam plugs and strips, and bulb seals from the radiator base support to the new lower support (Fig. 5).
2. Install the base bracket over the existing plate, grommets and lower bulb seals (Fig. 5). Ensure foam pieces are in place.

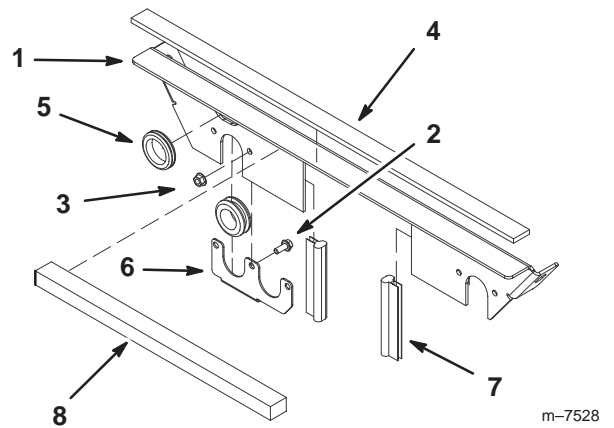
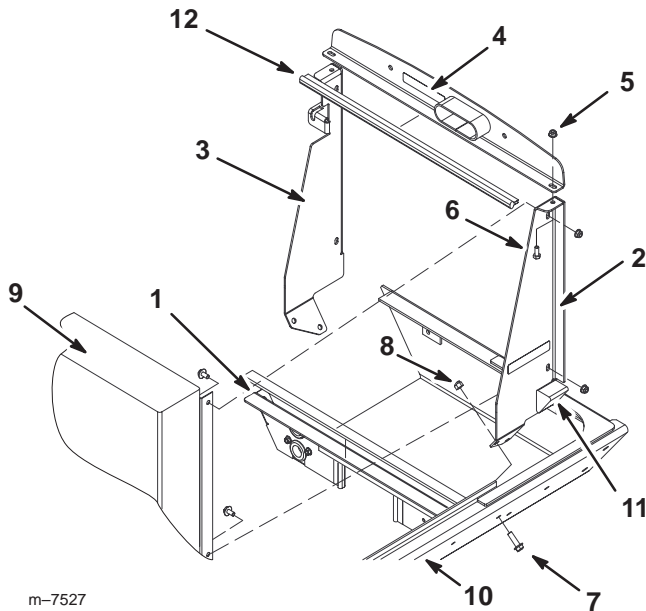


Figure 5

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| 1. Base support | 5. Grommet |
| 2. Bolt, 1/4 x 5/8 inch | 6. Plate |
| 3. Flange nut, 1/4 inch | 7. Bulb seal, lower |
| 4. Foam strip | 8. Foam block |

Important Ensure grommets, plate and bulb seals are in the correct position to create a positive seal to the frame, manifold, and hard lines.

3. Install the left and right supports to the frame and secure them using the fasteners removed previously. Do not tighten the fasteners at this time (Fig. 6).



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Figure 6

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|--------------------------|-------------------------|
| 1. Base bracket | 7. Bolt, 3/8 1-1/4 inch |
| 2. Left support | 8. Locknut, 1/4 inch |
| 3. Right support | 9. Radiator |
| 4. Top support | 10. Frame |
| 5. Flange nut, 5/16 inch | 11. Foam angle |
| 6. Bolt, 5/16 x 3/4 inch | 12. Bulb seal, upper |

4. Transfer the upper bulb seal to the top support (Fig. 6).
5. Install the top support to the left and right supports using two bolts (5/16 x 3/4 inch) and two locknuts (5/16 inch) supplied in loose parts. Do not tighten the fasteners at this time (Fig. 6).
6. Install the radiator into the supports using the four bolts (5/16 x 5/8 inch) and lock nuts (5/16 inch) removed previously (Fig. 6).
7. Tighten all support fasteners.

Important Avoid stressing the radiator frame. Do not over tighten fasteners.

8. Install the foam angles to seal the open cavity between the frame and support (Fig. 6).
9. Install the shroud into position and move the fan and clutch assembly through the shroud opening toward the engine.
10. Secure the fan and clutch assembly to the engine using the fasteners removed previously.
11. Move the shroud over the fan, toward the radiator. Secure the shroud to the radiator using the fasteners removed previously.

12. Connect the coolant hoses to the radiator. Secure the hoses using the existing clamps.

13. Connect the overflow hose from the overflow tank to the radiator.

Finishing the installation

1. Attach the air cleaner hose to the radiator support.
2. Flush the coolant system with water to remove any debris that may have entered the system during the installation.
3. Close the radiator drain.
4. Fill the coolant system with the proper mix of coolant. Refer to your *Operator's Manual* for a listing of the required coolant.
5. Test run the engine for any leaks.
6. Install the hood support rod using the clevis and hair pin removed previously.
7. Remove the blocks supporting the engine hood. Close and lock the hood.