

HONDA

Power

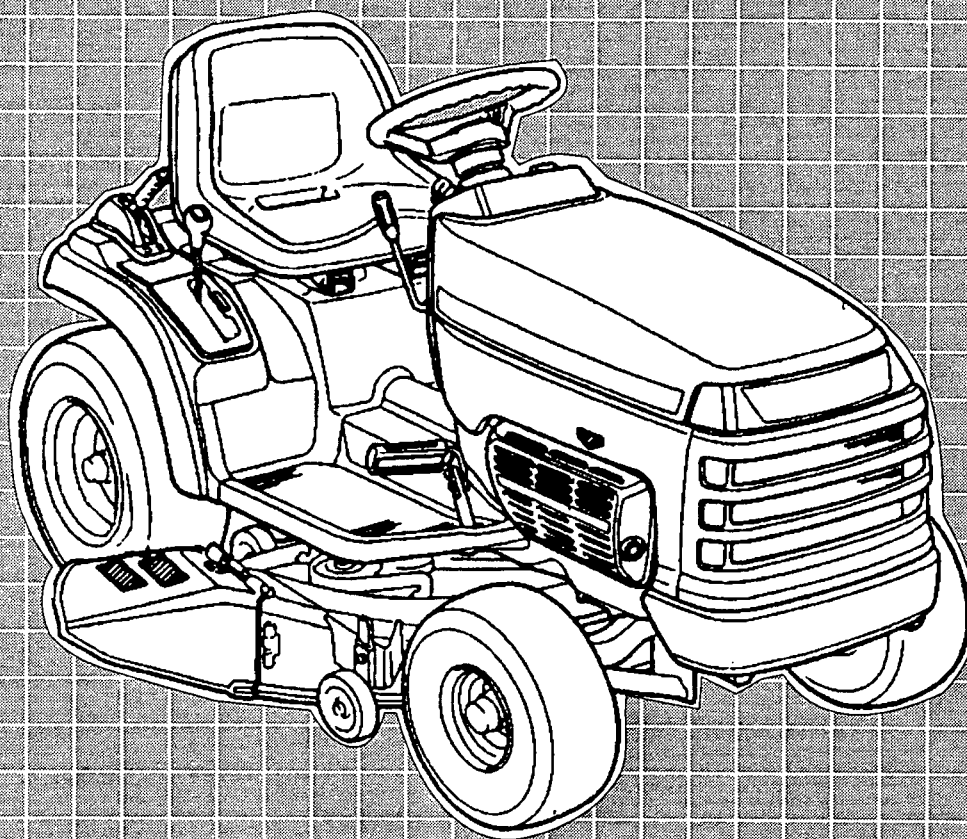
Equipment

OPERATOR'S MANUAL

Mulching Kit

42" & 46" Mower Decks

H4000-Series Lawn Tractors



The information in this operator's manual is limited in application to the Honda mulching kit for Honda H4000 Series lawn tractors with **42"** and **46"** mower decks. Before installing or operating this equipment, read this manual and the owner's manual supplied with the Honda lawn tractor.

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This manual is a permanent part of the mower deck and must stay with the mower deck if resold.

IMPORTANCE OF INSTALLATION

Proper installation is essential to operator safety and the reliability of the machine. Any error or oversight made by the technician assembling and servicing a unit can easily result in faulty operation, damage to the machine, or injury to the operator.

WARNING

Improper service can cause an unsafe condition that can lead to serious injury or death.

Follow the procedures and precautions in the installation instructions and shop manuals carefully.

Some of the most important safety precautions are given below. However, we cannot warn you of every conceivable hazard that can arise in performing this installation. Only you can decide whether or not you should perform a given task.

WARNING

Failure to properly follow installation instructions and precautions can cause you to be seriously hurt or killed.

Follow the procedures and precautions in the installation instructions carefully.

IMPORTANT SAFETY PRECAUTIONS

Make sure you have a clear understanding of all basic shop safety practices and that you are wearing appropriate clothing and safety equipment. When performing this installation, be especially careful of the following:

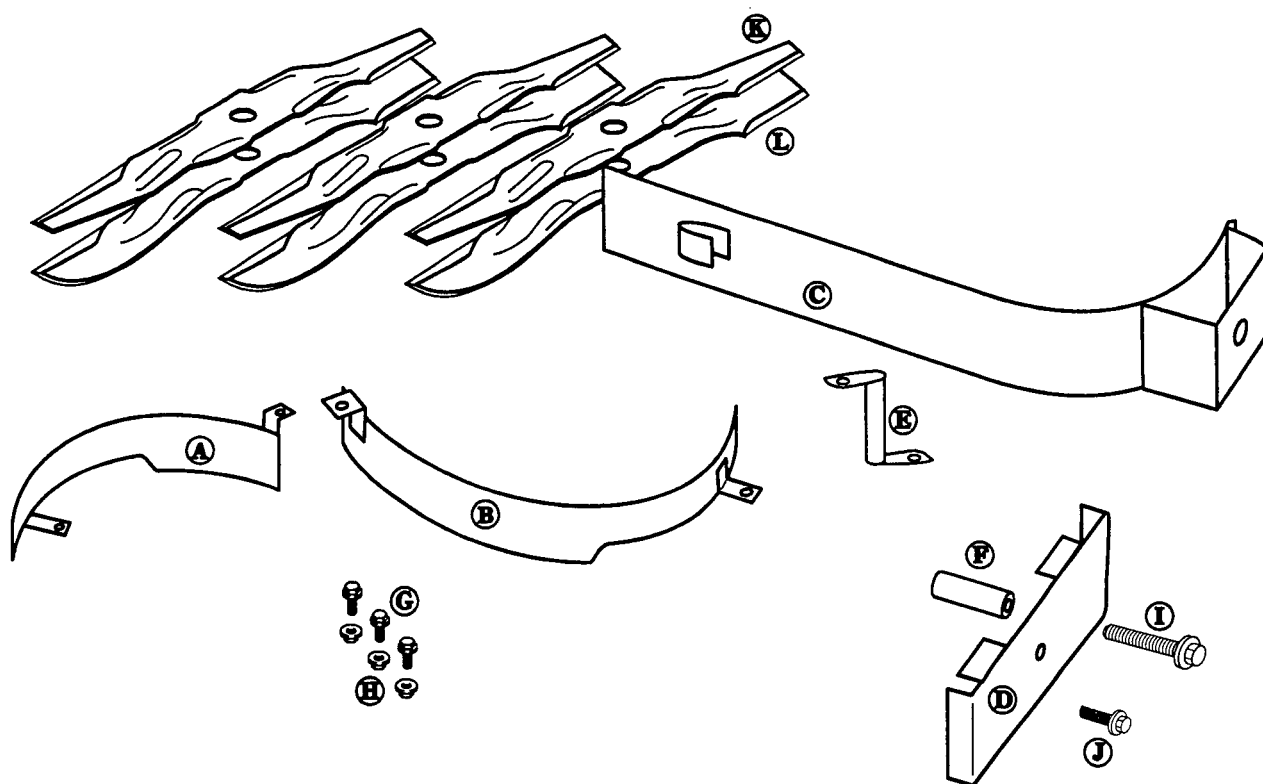
- Read the instructions before you begin, and make sure you have the tools and skills required to perform the tasks safely.

Make sure the engine is off before you begin any maintenance or repairs. This will help eliminate several potential hazards:

- Carbon monoxide poisoning from engine exhaust. Be sure there is adequate ventilation whenever you run the engine.
- Burns from hot parts. Let the engine and exhaust system cool before touching.
- Injury from moving parts. Do not run the engine unless the instruction tells you to do so. Even then, keep your hands, fingers, and clothing away. Do not run the engine when any protective guard or shield is removed.

To reduce the possibility of a fire or explosion, be careful when working around gasoline or batteries. Use only a nonflammable solvent, not gasoline, to clean parts. Keep all cigarettes, sparks, and flames away from the battery and all fuel-related parts.

CONTENTS



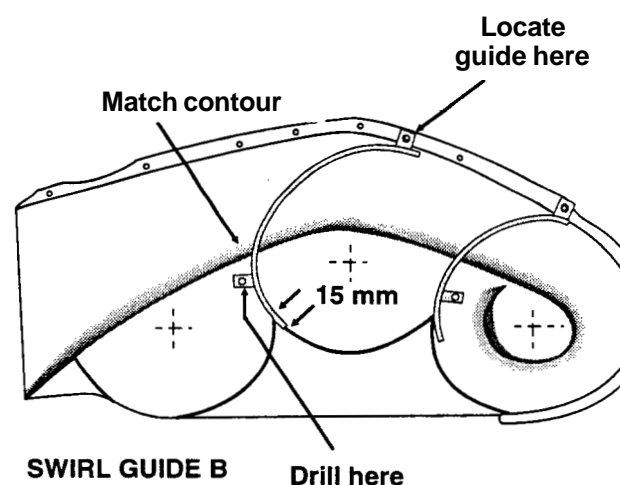
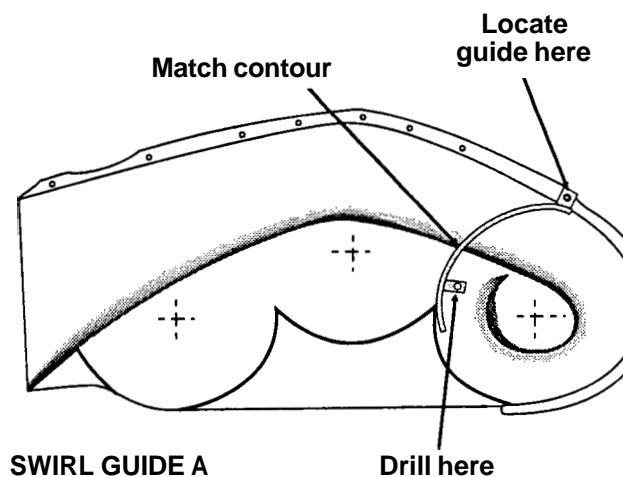
Item	Quantity	Description
A	1	Swirl guide A
B	1	Swirl guide B
C	1	Swirl guide C
D	1	Discharge plate
E	1	Swirl rod
F	1	Guide spacer (42" Kit Only)
G	5	8 x 15 mm Flange bolt (42" Kit Only)
	4	8 x 15 mm Flange bolt (46" Kit Only)
H	5	8 mm Nut (42" Kit Only)
	4	8 mm Nut (46" Kit Only)
I	1	10 x 60 mm Flange bolt (42" Kit Only)
J	1	10 x 15 mm Flange bolt (46" Kit Only)
K	3	Mulching blade
L	3	Low-lift blade

The installation of this kit must be performed by an authorized Honda lawn tractor dealer. These installation instructions are provided for dealer use.

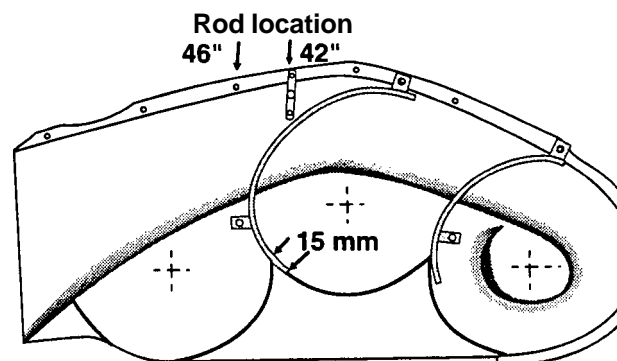
Follow these instructions carefully. Correct installation of this kit is essential for safe, reliable operation. Poor operation is a major cause of customer dissatisfaction. Your customer expects this kit to be correctly installed, adjusted, and ready to use.

DEALER INSTALLATION INSTRUCTIONS

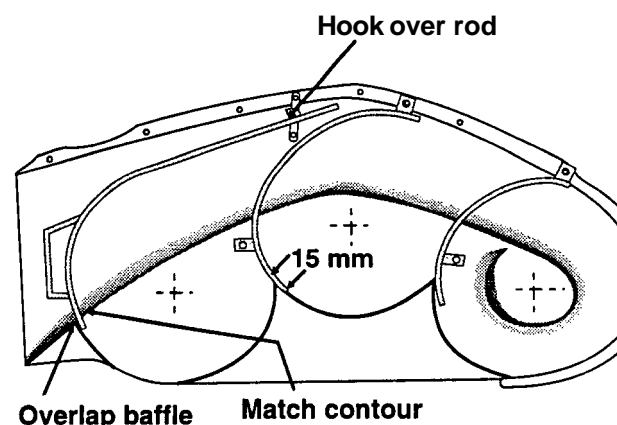
- 1 Follow the instructions in the shop manual to remove the mower deck from the lawn tractor. Thoroughly clean the underside of the deck. Remove the front protector plate from the front edge of the deck. Remove the existing blades and blade holders and store them for possible future use. They are not used with this kit.
- 2 Place Swirl Guide A around the spindle farthest from the discharge side. Temporarily attach the forward end of the guide with a finger-tight 8 mm nut and bolt through the bracket into the outer hole for the protector plate.
- 3 Pivot Swirl Guide A so that the guide matches the contour of the deck as indicated in the illustration. On 42" decks, the guide will fit inside the existing baffle as pictured; on 46" decks, the end of the guide should be close to the point of the baffle, but there will be a gap of about 7 mm.
- 4 Temporarily place one of the mulching blades from the kit on the spindle and rotate it by hand to ensure there is clearance between the blade and Swirl Guide A. Adjust the position of the swirl guide accordingly. Use the hole in the rear bracket as a guide to mark the location of the hole to be drilled.
- 5 Remove the swirl guide and drill a 3/8" hole in the deck at the location you marked.
- 6 Deburr the hole and install Swirl Guide A with a finger-tight 8 mm bolt and flange nut in the rear bracket of the swirl guide. The bolt head should be on the belt-side of the deck; the nut on the blade-side.
- 7 Place Swirl Guide B around the center spindle. Temporarily locate the forward end of the guide with a finger-tight 8 mm nut and bolt through the bracket into the hole shown.
- 8 Pivot Swirl Guide B so that the guide matches the contour of the deck as indicated in the illustration. The end of the guide should overlap the inside of the baffle by 15 mm.



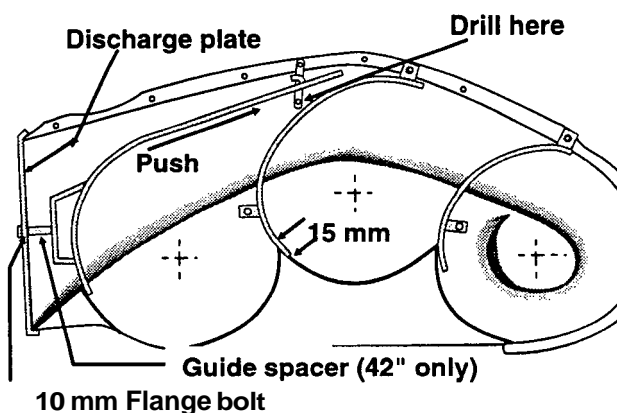
- 9 Temporarily place one of the mulching blades from the kit on the spindle and rotate it by hand to ensure there is clearance between the blade and Swirl Guide B. Adjust the position of the swirl guide accordingly. Use the hole in the rear bracket as a guide to mark the location of the hole to be drilled.
- 10 Remove the swirl guide and drill a 3/8 hole in the deck at the location you marked.
- 11 Deburr the hole and install Swirl Guide B with a finger-tight 8 mm bolt and flange nut in the rear bracket of the swirl guide. The bolt head should be on the belt-side of the deck; the nut on the blade-side.
- 12 Temporarily locate the Swirl Rod with a finger-tight 8 mm nut and bolt through the bracket into the hole shown. This hole is one position away from the hole in the front point of the deck on the 42" model and two hole positions away on the 46".
- 13 Place Swirl Guide C into position with the hook around the Swirl Rod. Place the Discharge Plate over the discharge opening (and around the front tab on 46" decks) and bolt it to Swirl Guide C. On 42' decks use the 10 x 60 mm bolt through the front hole of the plate and use the Guide Spacer. On 46" decks use only the 10 x 15 mm bolt through the rear hole of the plate. The guide should match the contour of the deck and the end of the guide should overlap the point of the baffle by about 38 mm (1.5 in.).
- 14 Push the rear of the Swirl Rod away from the discharge opening to hold the Discharge Plate tightly against the opening. Hold the Swirl Rod in this position.
- 15 Temporarily place one of the mulching blades from the kit on the spindle and rotate it by hand to ensure there is clearance between the blade and Swirl Guide C. Adjust the position of the swirl guide and Swirl Rod accordingly, but make sure the Discharge Plate remains tightly against the discharge opening. Use the hole in the Swirl Rod as a guide to mark the location of the drilled hole.
- 16 Remove the Swirl Guide Discharge Plate and Swirl Rod, and drill a 3/8" hole in the deck at the location you marked.



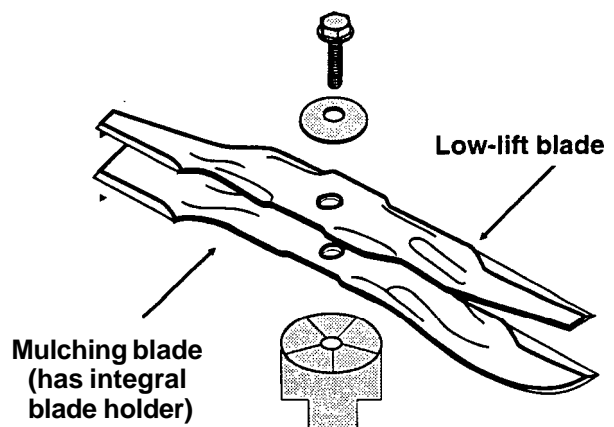
SWIRL ROD



SWIRL GUIDE C



- 17** Deburr the hole and install the Swirl Rod with a finger-tight 8 mm bolt and flange nut in the rear hole of the rod bracket. The bolt head should be on the belt-side of the deck; the nut on the blade-side.
- 18** With Swirl Guides A and B and the Swirl Rod loosely bolted in position by their rear holes, reinstall the front protector plate. On the 42" deck, a protector plate stud goes through the front bracket of Swirl Guide A and then through the deck. Loosely install 8 mm bolts and nuts through the front protector plate, the brackets of Swirl Guide B and the Swirl Rod, and through the deck. The bolts should be on the bottom for ground clearance. On the 46" deck, protector plate studs go through the front brackets of Swirl Guide A and the Swirl Rod and then through the deck. Loosely install an 8 mm bolt and nut through the protector plate, the front bracket of Swirl Guide B, and through the deck. The bolt should be on the bottom for ground clearance.
- 19** Install the Discharge Plate and Swirl Guide C as in Step 13.
- 20** Torque the 8 mm bolts and nuts to 22 N•m (16.2 ft-lb.) Torque the 10 mm bolt to 40 N•m (29.5 ft-lb.)
- 21** Install a mulching blade and a low-lift blade on each spindle with the existing bolt and washer. The blade lifts go toward the deck. The INSIDE's of the washers go toward the blades. Do not use the blade holders. The mulching blades have integral blade holders for the low-lift blades. Tighten the blade bolts to a torque of 60 N•m (44.3 ft-lb). **Use** wooden boards or wear heavy gloves to keep the blades from turning when torquing them.
- 22** Follow the instructions in the shop manual to install the mower deck onto the lawn tractor.



OPERATING INSTRUCTIONS

Grass Cutting Basics

Cutting Height

A cutting height setting of 1½ or 2 inches is appropriate for most lawns during cool weather. A higher cut may be needed to protect the lawn during hot summer months. Consult a local nursery or lawn and garden center for advice about specific types of grasses and growing conditions in your area. Most grasses should be cut when they have grown ½ to 1 inch above the recommended height. If your grass gets too tall, cut it back a little at a time, allowing a few days for the grass to recover between mowings. Avoid cutting more than one third of total grass height in any one mowing. For best mulching results, mow the lawn frequently enough that you will need to cut off less than one inch. Frequent mowing, with light cuts, makes it easier for your mulching mower to turn grass clippings into fine particles that will fall through the turf and decompose quickly.

Cutting Width

For an even lawn finish, overlap each mowing swath by a few inches. If the grass is very tall or thick, use more overlap and a narrower mowing swath. If clogging or clumping occurs, you may also need to mow more slowly or raise the cutting height setting.

Blade Speed

For best performance, the blades must spin very fast. Always use the fast throttle setting, and keep the engine running at or near maximum rpm. If you hear the engine speed decrease, mow more slowly, cut a narrower swath, or raise the cutting height setting.

Blade Sharpness

Keep the blades sharp. Sharp blades cut cleanly. Dull blades tear the grass, leaving shredded ends that turn brown.

Moisture

Always wait for wet grass to dry. Wet grass clippings will clog the mower deck and collect in clumps on the lawn. If the soil is very dry, mowing can stir up a lot of dust. Besides being unpleasant to work in, too much dust will clog the carburetor air filter. If dust is a problem, water your lawn the day

before mowing. Mow when the grass dries, and the soil is still moist.

Mulching

Mulching cuts grass clippings and fallen leaves into fine particles that fall through the turf and decompose quickly. This returns nutrients to the soil and reduces the need for raking, bagging, and disposal. For best mulching results, mow the lawn frequently, cutting off less than one inch of grass each time. In growing season, you will probably need to mow the lawn twice a week. Heavy layers of leaves may be difficult to mulch. This mulching kit closes the discharge port in the mower deck which recirculates grass clippings through the special mulching blades. Periodically cleaning the accumulated grass clippings from the mower deck and tractor before using will help promote clipping recirculation.

Side-discharge Mowing

Side-discharge mowing should be considered where grass has grown too tall to mulch easily. Side-discharge mowing will leave grass clippings on top of the mowed areas and may need to be removed by raking. Heavy clumps of clippings should always be removed; grass must remain uncovered to grow properly.

For side-discharge mowing, you must remove the Discharge Plate and Swirl Guide C. It is not necessary to remove the other swirl guides.

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