

Cub Cadet®

Operator's Manual



21" Rear & Side Discharge Mulching Mower

Model PR-521

IMPORTANT: READ SAFETY RULES AND INSTRUCTIONS CAREFULLY

Warning: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator. In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 368023 Cleveland, Ohio 44136-9722.

CUB CADET CORP. P.O. BOX 368023 CLEVELAND, OHIO 44136-9722

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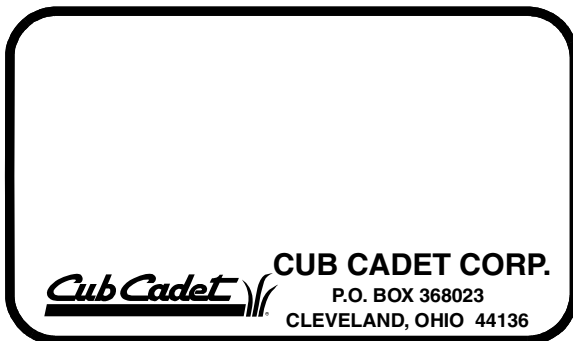
FINDING MODEL NUMBER

This Operator's Manual is an important part of your new Lawn Mower. It will help you assemble, prepare and maintain the unit for best performance. Please read and understand what it says.



Before you start assembling your new equipment, please locate the model plate on the equipment and copy the information from it in the space provided below. The information on the model plate is very important if you need help from our Customer Support Department or an authorized dealer.

- You can locate the model number by standing in the operating position and looking down at the rear of the deck. A sample model plate is explained below. For future reference, please copy the model number and the serial number of the equipment in the space below.



Copy the model number here: _____

Copy the serial number here: _____

CALLING CUSTOMER SUPPORT

If you have difficulty assembling this product or have any questions regarding the controls, operation or maintenance of this unit, please call the Customer Support Department.



Call **1-(800)-528-1009** to reach the Customer Dealer Referral Line. Please have your unit's model number and serial number ready when you call. See previous section to locate this information. You will be asked to enter the serial number in order to process your call.

For more details about your unit, visit our website at www.cubcadet.com

SECTION 1: IMPORTANT SAFE OPERATION PRACTICES



WARNING: This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate this machine. Failure to comply with these instructions may result in personal injury. When you see this symbol—HEED ITS WARNING.



WARNING: The Engine Exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



DANGER: This machine was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

General Operation

1. Read this operator's manual carefully in its entirety before attempting to assemble this machine. Read, understand, and follow all instructions on the machine and in the manual(s) before operation. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. This machine is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times. Your unit has been designed to perform one job: to mow grass. Do not use it for any other purpose.
3. Never allow children under 14 years old to operate this machine. Children 14 years old and over should read and understand the operation instructions and safety rules in this manual and should be trained and supervised by a parent. Only responsible individuals who are familiar with these rules of safe operation should be allowed to use this machine.
4. Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones, toys and other foreign objects which could be tripped over or picked up and thrown by the blade. Thrown objects can cause serious personal injury. Plan your mowing pattern to avoid discharge of material toward roads, sidewalks, bystanders and the like. Also, avoid discharging material against a wall or obstruction which may cause discharged material to ricochet back toward the operator.
5. To help avoid blade contact or a thrown object injury, stay in the operator zone behind the handles and keep children, bystanders, helpers and pets at least 75 feet from the mower while it is in operation. Stop machine if anyone enters the area.
6. Always wear safety glasses or safety goggles during operation and while performing an adjustment or repair to protect your eyes. Thrown objects which ricochet can cause serious injury to the eyes.
7. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Shirts and pants that cover the arms and legs and steel-toed shoes are recommended. Never operate this machine in bare feet, sandals, slippery or light weight (e.g. canvas) shoes.
8. Do not put hands or feet near rotating parts or under the cutting deck. Contact with the blade can amputate hands and feet.
9. A missing or damaged discharge cover can cause blade contact or thrown object injuries.
10. Many injuries occur as a result of the mower being pulled over the foot during a fall caused by slipping or tripping. Do not hold on to the mower if you are falling; release the handle immediately.
11. Never pull the mower back toward you while you are walking. If you must back the mower away from a wall or obstruction first look down and behind to avoid tripping and then follow these steps:
 - a. Step back from the mower to fully extend your arms.
 - b. Be sure you are well balanced with sure footing.
 - c. Pull the mower back slowly, no more than half way toward you.
 - d. Repeat these steps as needed.
12. Do not operate the mower while under the influence of alcohol or drugs.
13. Do not engage the self-propelled mechanism on units so equipped while starting engine.
14. The blade control handle is a safety device. Never attempt to bypass its operation. Doing so makes the safety device inoperative and may result in personal injury through contact with the rotating blade. The blade control handle must operate easily in both directions and automatically return to the disengaged position when released.
15. Never operate the mower in wet grass. Always be sure of your footing. A slip and fall can cause serious personal injury. If you feel you are losing your footing, release the blade control handle immediately and the blade will stop rotating within three seconds.
16. Mow only in daylight or in good artificial light. Walk, never run.
17. Stop the blade when crossing gravel drives, walks or roads.
18. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
19. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher or unclogging the chute. The cutting blade continues to rotate for a few seconds after the engine is shut off. Never place any part of the body in the blade area until you are sure the blade has stopped rotating.

20. Never operate mower without proper trail shield, discharge cover, grass catcher, blade control handle or other safety protective devices in place and working. Never operate mower with damaged safety devices. Failure to do so, can result in personal injury.
21. Muffler and engine become hot and can cause a burn. Do not touch.
22. Only use parts and accessories made for this machine by the manufacturer. Failure to do so, can result in personal injury.
23. If situations occur which are not covered in this manual, use care and good judgment. Contact your dealer for assistance. Telephone 1-800-800-7310 for the name of your nearest dealer.

Slope Operation

Slopes are a major factor related to slip and fall accidents which can result in severe injury. Operation on slopes requires extra caution. If you feel uneasy on a slope, do not mow it. For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15 degrees, do not mow it.

Do:

1. Mow across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes.
2. Watch for holes, ruts, rocks, hidden objects, or bumps which can cause you to slip or trip. Tall grass can hide obstacles.
3. Always be sure of your footing. A slip and fall can cause serious personal injury. If you feel you are losing your balance, release the blade control handle immediately, and the blade will stop rotating within 3 seconds.

Do Not:

1. Do not mow near drop-offs, ditches or embankments, you could lose your footing or balance.
2. Do not mow slopes greater than 15 degrees as shown on the slope gauge.
3. Do not mow on wet grass. Unstable footing could cause slipping.

Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the mower and the mowing activity. They do not understand the dangers. Never assume that children will remain where you last saw them.

1. Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
2. Be alert and turn mower off if a child enters the area.
3. Before and while moving backwards, look behind and down for small children.
4. Use extreme care when approaching blind corners, doorways, shrubs, trees, or other objects that may obscure your vision of a child who may run into the mower.

5. Keep children away from hot or running engines. They can suffer burns from a hot muffler.
6. Never allow children under 14 years old to operate a power mower. Children 14 years old and over should read and understand the operation instructions and safety rules in this manual and should be trained and supervised by a parent.

Service

Safe Handling Of Gasoline:

1. To avoid personal injury or property damage use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Serious personal injury can occur when gasoline is spilled on yourself or your clothes which can ignite.
2. Wash your skin and change clothes immediately.
3. Use only an approved gasoline container.
4. Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
5. When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
6. Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
7. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
8. Never fuel machine indoors because flammable vapors will accumulate in the area.
9. Never remove gas cap or add fuel while the engine is hot or running. Allow engine to cool at least two minutes before refueling.
10. Never over fill fuel tank. Fill tank to no more than ½ inch below bottom of filler neck to provide space for fuel expansion.
11. Replace gasoline cap and tighten securely.
12. If gasoline is spilled, wipe it off the engine and equipment. Move unit to another area. Wait 5 minutes before starting the engine.
13. Never store the machine or fuel container inside where there is an open flame, spark or pilot light as on a water heater, space heater, furnace, clothes dryer or other gas appliances.
14. To reduce fire hazard, keep mower free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage and remove any fuel soaked debris.
15. Allow a mower to cool at least 5 minutes before storing.

General Service:

1. Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
2. Before cleaning, repairing, or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire and ground against the engine to prevent unintended starting.

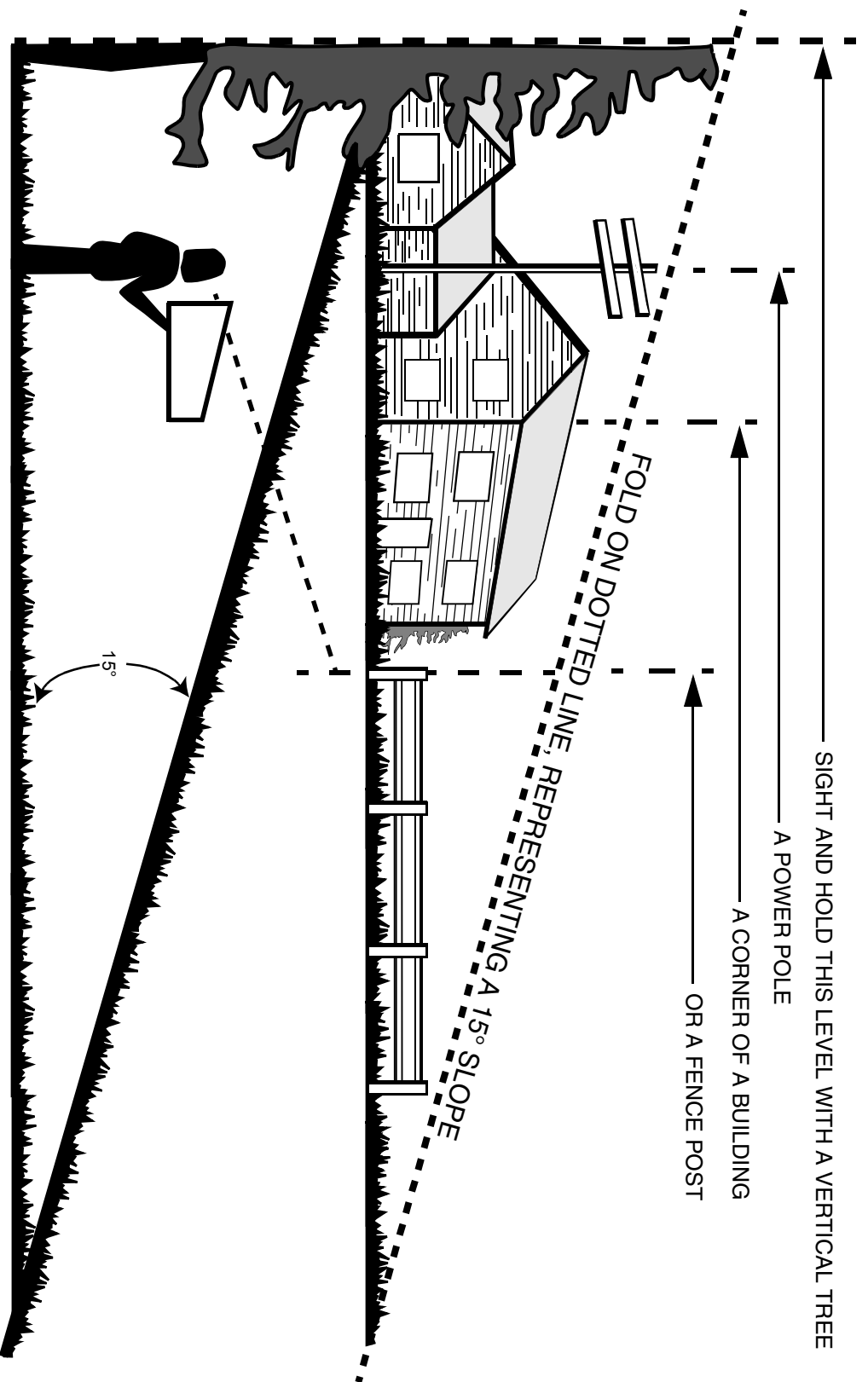
3. Check the blade and engine mounting bolts at frequent intervals for proper tightness. Also, visually inspect blade for damage (e.g., bent, cracked, worn) Replace blade with the original equipment manufacture's (O.E.M.) blade only, listed in this manual. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"
4. Mower blades are sharp and can cut. Wrap the blade or wear gloves, and use extra caution when servicing them.
5. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
6. Never tamper with safety devices. Check their proper operation regularly.
7. After striking a foreign object, stop the engine, disconnect the spark plug wire and ground against the engine. Thoroughly inspect the mower for any damage. Repair the damage before starting and operating the mower.
8. Never attempt to make a wheel or cutting height adjustment while the engine is running.
9. Grass catcher components, discharge cover, and trail shield are subject to wear and damage which could expose moving parts or allow objects to be thrown. For safety protection, frequently check components and replace immediately with original equipment manufacturer's (O.E.M.) parts only, listed in this manual. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"
10. Do not change the engine governor setting or overspeed the engine. The governor controls the maximum safe operating speed of the engine.
11. Maintain or replace safety and instruction labels, as necessary.
12. Observe proper disposal laws and regulations. Improper disposal of fluids and materials can harm the environment.

Your Responsibility

- Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.



USE THIS PAGE AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.



Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2-1/2 feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

Operate RIDING mowers up and down slopes, never across the face of slopes.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

SECTION 2: SLOPE GAUGE

SECTION 3: ASSEMBLING YOUR LAWN MOWER

To Remove Unit From Carton

- Remove staples, break glue on top flaps, or cut tape at carton end and peel along top flap to open carton.
- Remove loose parts if included with unit (i.e., operator's manual, etc.).
- Cut along corners and lay carton down flat. Remove packing material. Roll or slide unit out of carton. Check carton thoroughly for loose parts.

NOTE: Parts included for assembly of grass catcher are listed on page 8.

Tools Required

- Pair of Pliers
- Funnel

Disconnect Spark Plug Wire

- Before setting up your lawn mower, disconnect the spark plug wire from the spark plug. See Figure 1.
- Attach rubber boot to a bolt on the engine to ground as shown in the figure.

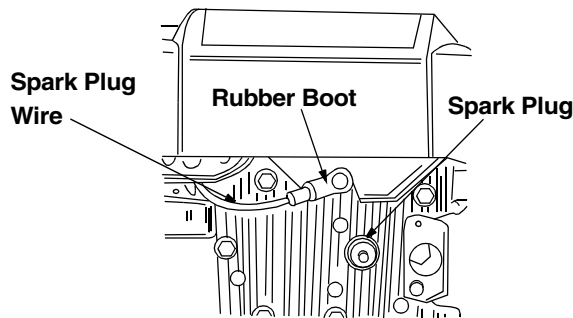


Figure 1

IMPORTANT: This unit is shipped without gasoline or oil in the engine. Be certain to service engine with gasoline and oil before operating your mower.

NOTE: Reference to right or left hand side of the mower is observed from the operating position.

Setting Up Your Lawn Mower

- Remove any packing material which may be between the upper and lower handles for shipping purposes.
- Pull up and back on the upper handle to raise the handle into the operating position. Make certain the lower handle is seated securely into the handle mounting brackets. Tighten the hand knobs on each side of the handle (carriage bolts must be seated properly into the handle). See Figure 2.

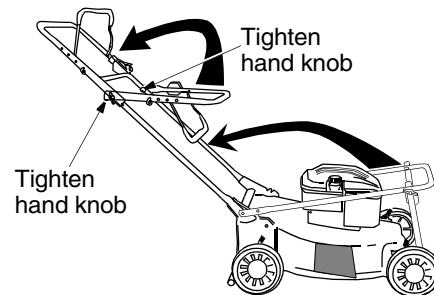


Figure 2

NOTE: Your mower is shipped with the handle in the higher height position. If you wish to lower the height of the handle, refer to the Adjustment Section at this time.

- Remove the hairpin clips from the outer hole in the weld pins on the handle mounting brackets. Using a pair of pliers, squeeze one leg of the lower handle against the handle mounting bracket. Insert the hairpin clip into the inner hole on the weld pin. Repeat on the other side. See Figure 3.

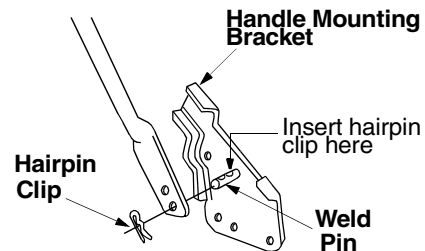


Figure 3

- Insert post on cable ties into holes provided on the lower handle. Pull the cable tie tight and trim the excess. See Figure 4.

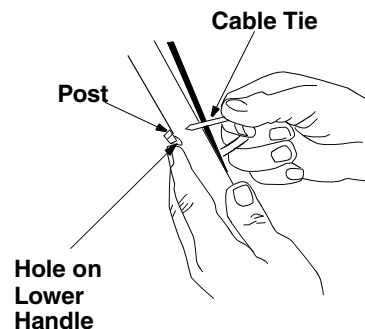


Figure 4

- The rope guide is attached to the right side of upper handle. Loosen the wing nut which secures the rope guide. See Figure 5.

- With spark plug wire disconnected and grounded, hold the blade control handle against the upper handle, and pull the starter rope out of the engine. Release blade control handle. Slip the rope into the rope guide. Tighten the wing nut. See Figure 5.
- Tighten **all** nuts and bolts securely.

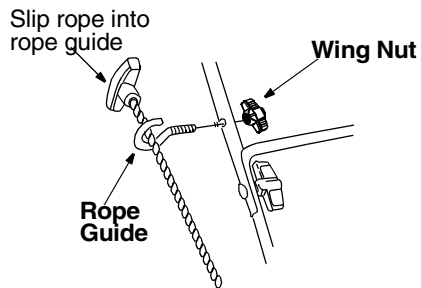


Figure 5

Assembling Grass Catcher

NOTE: Make certain bag is turned right side out before assembling (warning label will be on the outside).

Parts for Soft Grass Bag:

1. Front Frame & Rear Frame
2. Grass Bag

Assemble grass bag as follows:

- Join the rear frame and front frame assembly as shown in Figure 6A.
- Place bag over frame (black plastic side is the bottom of bag). Slip the openings in the side of the plastic channel on bag over the hooks on the grass catcher frame.
- Secure bag to frame by working the plastic channels on bag over frame as shown in Figure 6B. All of the plastic channels except center top of bag attach from the outside of bag. Center top of bag attaches from the inside of bag.

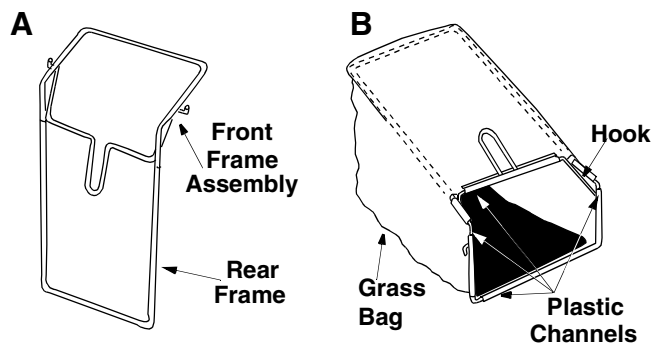


Figure 6

Attaching Grass Catcher To Mower

NOTE: The mulching baffle is already in place on the mower for shipping purposes. Your lawn mower is equipped with both a mulching baffle and a mulching plug. While the mulching baffle is located at the rear of the mower, the mulching plug is located on the right side of the cutting deck. Do not remove the mulching plug from the mower even when you are not mulching.

- To remove the mulching baffle, lift the rear discharge door on the mower. Remove the mulching baffle. See Figure 7.

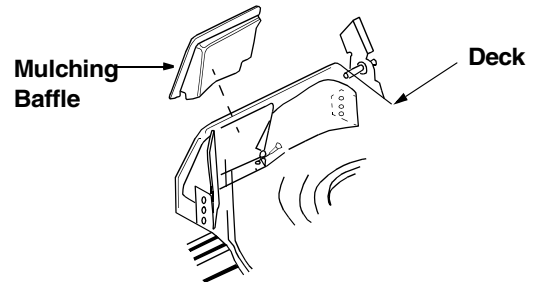


Figure 7

IMPORTANT: Make sure cable is routed to the outside of the handle so they are not in the way when attaching the grass catcher.

- Lift the rear discharge door on the mower.
- Place the hooks on the grass catcher into the slots in the handle bracket assemblies. See Figure 8. Release the rear discharge door.
- **To remove the grass catcher,** lift the rear discharge door on the mower. Lift the grass catcher up, out of the slots in the handle bracket assemblies. Release the rear discharge door.



WARNING: Never operate the mower unless the hooks on the grass catcher are firmly seated in the slots on the handle bracket assemblies, and the rear discharge door rests firmly against the top of the grass catcher.

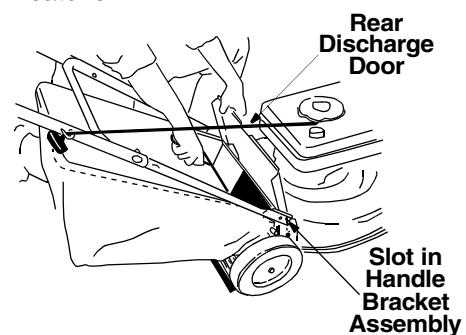


Figure 8

Converting To Side Discharge

If your unit is equipped with a side discharge chute, you can convert to a side discharge mower as follows:

- Lift the rear discharge door and install the mulching baffle. See Figure 8.
- On the right side of the mower, lift the mulching plug. See Figure 9.
- Slide the two hooks of the side discharge chute under the hinge pin on the mulching plug assembly as shown below. Lower the side mulching plug.

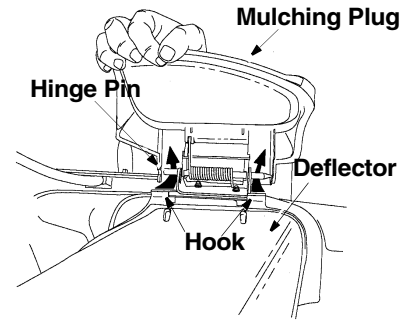


Figure 9

SECTION 4: KNOW YOUR LAWN MOWER



WARNING: Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.



Figure 10

Recoil Starter

The recoil starter handle is attached to the handle and is used to start the engine.

- Do not remove the side mulching plug at any time, even when you are not mulching.

Grass Catcher

The grass catcher, located at the rear of the mower, is used to bag grass clippings for disposal at another site.

Mulching Plug

Both the mulching baffle and the mulching plug are used only for mulching purposes. Instead of collecting the grass clippings in a grass catcher, some mower models have the option of recirculating the clippings back to the lawn. This is called mulching.

Blade Control Handle

The blade control handle is located on the upper handle of the mower. The blade control handle must be depressed in order to operate the unit. Release the blade control handle to stop the engine and the blade.



WARNING: The blade control handle is a safety device. Never attempt to bypass its operations. Doing so, may result in personal injury through contact with the rotating blade. The blade rotates whenever the engine is running.

Cutting Height Adjustment Lever

This lever, located at each wheel, lets you adjust cutting height of the grass. Remember to put all four levers at the same height to avoid uneven cut.

Throttle Control

Your engine is equipped with a constant speed throttle, which is set at full throttle for best performance.

SECTION 5: OPERATING YOUR LAWN MOWER

NOTE: For shipping purposes, your mower wheels are set in low cutting height position. Refer to instructions for cutting height adjustment on page 11.

Gas and Oil Fill-Up

- Service engine with gasoline and oil as instructed in the engine manual. Follow instructions carefully.



WARNING: Use extreme care when handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Never fuel machine indoors or while the engine is hot or running. Extinguish cigarettes, cigars, pipes, and other sources of ignition.

Before Starting

- Attach spark plug wire to spark plug. Ensure that the metal cap on the end of the spark plug wire (inside the rubber boot) is fastened securely over the metal tip on the spark plug.



WARNING: Read, understand, and follow all instructions and warnings on the machine and in this manual before operating.

To Start Engine and Engage Blade



WARNING: Never run engine indoors or in enclosed, poorly ventilated areas. Engine exhaust contains carbon monoxide, an odorless and deadly gas. Keep hands, feet, hair and loose clothing away from any moving parts on engine and lawn mower.

- Prime engine as instructed in the separate engine manual packed with your unit.
- Standing behind the unit, depress the blade control handle and hold it against the upper handle.
- Grasp starter handle and pull rope out slowly until engine reaches start of compression cycle (rope will pull slightly harder at this point). Let the rope rewind slowly.
- Pull rope with a rapid, continuous, full arm stroke. Keep a firm grip on starter handle. Return it slowly to the rope guide.

To Stop Engine and Blade

- Release the blade control handle to stop the engine and blade.



WARNING: The blade will continue to rotate for three seconds after the blade control lever is released.

- Disconnect the spark plug wire and ground it against the engine to prevent accidental starting while equipment is unattended.

Using Your Rotary Mower



WARNING: Never operate your unit without either the rear deflector or entire grass catcher assembly in place.

- Be sure that lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. Such objects could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.
- For best results, do not cut wet grass because it tends to stick to the underside of the mower, and could cause you to slip and fall. New grass, thick grass or wet grass may require a narrower cut.
- For a healthy lawn, never cut more than one-third of the total length of the grass at any one cutting. Lawn should be cut in the fall season as long as there is growth.



WARNING: Extensive vibration of the mower during operation is an indication of damage. If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting the mower.

Using the Mulcher

- For effective mulching, do not cut wet grass because it tends to stick to the underside of the deck, preventing proper mulching of grass clippings. New or thick grass may require a narrower cut. The ground speed should be adjusted to the condition of the lawn. If mowing has been delayed and the grass has been allowed to grow in excess of 4", mulching is not recommended. Mow using the grass bag (if so equipped) to reduce the grass height to 3-1/4" maximum before mulching.

SECTION 6: MAKING ADJUSTMENTS



WARNING: Never attempt to make any adjustments while the engine is running, except where specified in the operator's manual.

Carburetor



WARNING: If any adjustments need to be made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts. Be careful of muffler, engine and other surrounding heated surfaces.

Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load. To adjust carburetor, refer to the engine manual packed with your mower.

NOTE: A dirty air cleaner will cause an engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor.

Cutting Height

An adjusting plate and thumb lever at each wheel position provides cutting height adjustment. Each adjusting plate has nine height positions.

- Simply depress the lever towards wheel and move wheel and lever assembly to desired position. All wheels must be placed in the same relative position. See Figure 11.

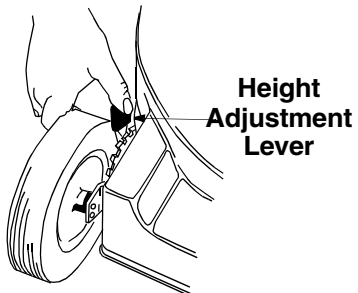


Figure 11

Handle Height

Your mower is shipped with the handle in the higher height position. To lower the handle height for your convenience, proceed as follows.

- Remove the starter rope from the rope guide.
- Remove the upper handle by removing the hand knobs and carriage bolts. Lay upper handle out of the way, being careful not to kink the cables.
- Remove the hairpin clips from the weld pins on the handle brackets. Press outward on the legs of the lower handle, and remove it from the mower.
- Turn the lower handle around so the notches on the bottom of the lower handle are facing forward as shown in Figure 12. Reassemble, placing the bottom holes in the handle over the weld pins in the handle mounting bracket.
- Reassemble the upper handle.
- Place the hairpin clips in the inner holes in the weld pins and attach the starter rope as instructed in the assembly instructions on page 7 and 8.

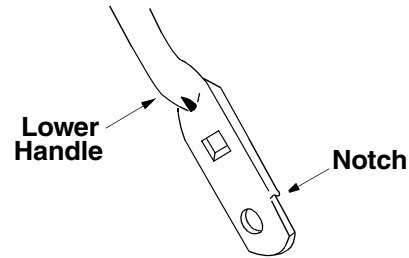


Figure 12

SECTION 7: MAINTAINING YOUR LAWN MOWER



WARNING: Before servicing, repairing, or inspecting, release the blade control handle and wait until the engine comes to a complete stop. Disconnect the spark plug wire and ground it against the engine to prevent unintended starting.

Replacing Rear Flap

- To remove rear flap, cut off the flat end of the wire rod which secures it to the deck. See Figure 13.

- Attach the new flap and new rod to deck, bending the ends of the new rod over to secure to deck.

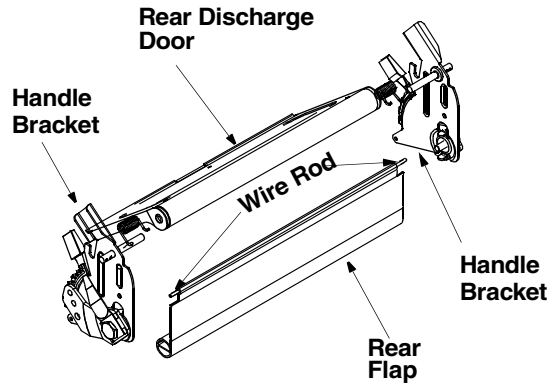


Figure 13

Blade Care

- Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary.



WARNING: When removing the cutting blade for sharpening or replacement, protect hands by using heavy gloves or a rag to grasp the cutting blade.



WARNING: Periodically inspect the blade adapter for cracks or damage, especially if you strike a foreign object. Replace immediately if damaged.

- Remove the bolt and blade support or bell washer which hold the blade and adapter to the engine crankshaft. See Figure 14. Remove the blade and adapter from the crankshaft.
- When sharpening the blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade.

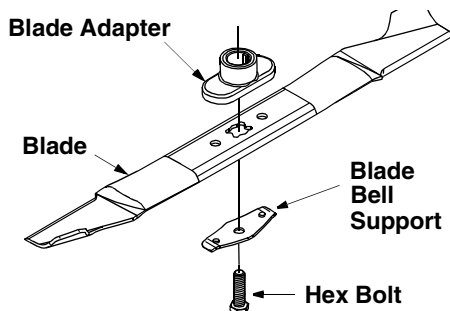
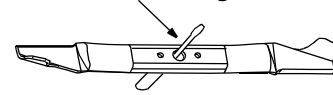


Figure 14

NOTE: An unbalanced blade will cause excessive vibration when rotating at high speeds and may cause damage to the mower and/or personal injury.

- The blade can be tested by balancing it on a round shaft screwdriver. See Figure 15. Remove metal from the heavy side until it balances evenly. It is recommended that the blade always be removed from the adapter for the best test of balance.

1. Insert screw driver through hole



2. Blade should be parallel to ground

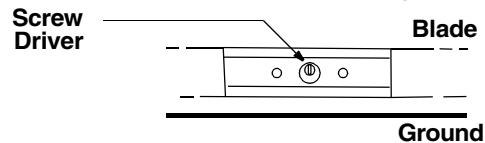


Figure 15

- Before reassembling the blade and the blade adapter to the unit, lubricate the engine crankshaft and the inner surface of the blade adapter with light oil (or engine oil). Also lubricate the bolt holes, bolts and inner surface of the nuts.
- Install the blade adapter on the crankshaft with the “star” away from the engine. Refer to Figure 14. Place the blade with the side marked bottom (or with part number) facing away from the adapter.
- Align the blade bell support over the blade with the tabs in the holes of the blade and insert the hex bolt. Tighten the hex bolt to the torque listed in the “Blade Mounting Torque” section below.

Blade Mounting Torque

Center Bolt: 450 in. lbs. min., 600 in. lbs. max.

IMPORTANT: To ensure safe operation, **all** nuts and bolts must be checked periodically for correct tightness.

Deck Care

NOTE: We do not recommend the use of pressure washers or garden hose to clean your unit. These may cause damage to electric components, spindles, pulleys, bearings or the engine. The use of water will shorten life of the mower and reduce its serviceability.

- The underside of the mower deck should be cleaned after each use to prevent a buildup of grass clippings, leaves, dirt or other matter. If this debris is allowed to accumulate, it will invite rust and corrosion, and may cause an uneven discharge of grass clippings at the next cutting.
- The deck may be cleaned by tilting the mower and scraping clean with a suitable tool (make certain the spark plug wire is disconnected).

Engine

- Refer to the separate engine manual.

Lubrication

(Refer to Lubrication Chart in Figure 16.)



WARNING: Before lubricating, repairing, or inspecting, release the blade control handle and wait until the engine comes to a complete stop. Disconnect the spark plug wire and ground it against the engine to prevent unintended starting.

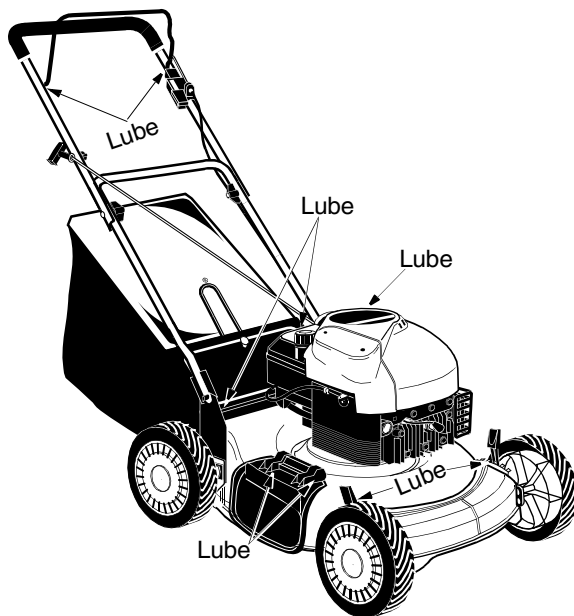


Figure 16: Lubrication Chart

Blade Control

- Lubricate the pivot points on the blade control handle and the brake cable at least once a season with light oil. The blade control must operate freely in both directions.

Rear & Side Discharge Doors

- The torsion springs and pivot points should be lubricated periodically with light oil to prevent any rust or binding. Door must work freely.

Wheels

- The wheels require no lubrication. However, if the wheels are removed for any reason, lubricate the surface of the axle bolt and the inner surface of the wheel with light oil. Engine oil may also be used.

Engine

- Follow engine manual for instruction and schedule of lubrication.

NOTE: When tipping the unit, empty the fuel tank and keep engine spark plug side up.

SECTION 8: OFF-SEASON STORAGE

The following steps should be taken to prepare lawn mower for storage.



WARNING: Never store the machine or fuel container indoors where there is an open flame, spark, or pilot light such as on water heater, furnace, clothes dryer or other gas appliance.

- Clean and lubricate mower thoroughly as described in the lubrication instructions.

- Refer to engine manual for correct engine storage instructions.
- Coat mower's cutting blade with chassis grease to prevent rusting.
- Store mower in a dry, clean area. Do not store next to corrosive materials, such as fertilizer.

NOTE: When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rust-proof the equipment. Using a light oil or silicone, coat the equipment, especially cables and all moving parts.

SECTION 9: TROUBLE SHOOTING GUIDE

Trouble	Possible Cause(s)	Corrective Actions
Engine fails to start	1. Control handle disengaged. 2. Spark plug wire disconnected. 3. Dirty air cleaner. 4. Primer button not depressed. 5. Fuel tank empty or stale fuel. 6. Blocked fuel line. 7. Faulty spark plug. 8. Engine flooded.	1. Engage blade control handle. 2. Connect wire to spark plug. 3. Refer to the engine manual packed with your unit. 4. Refer to the engine manual. 5. Clean fuel line. 6. Clean, adjust gap or replace. 7. Refer to the engine manual. 8. Wait for a while and crank the engine.
Engine runs erratic	1. Spark plug wire loose. 2. Blocked fuel line or stale fuel. 3. Carburetor out of adjustment.	1. Connect and tighten spark plug wire. Check spark plug for fouling. 2. Clean fuel line; fill tank with clean, fresh gasoline. 3. Refer to the engine manual packed with your unit.
Engine overheats	1. Engine oil level low. 2. Dirty aircleaner. 3. Air flow restricted. 4. Carburetor not adjusted.	1. Fill crankcase with proper oil. 2. Refer to the engine manual. 3. Stop engine and disconnect spark plug wire. Remove blower housing and clean. 4. Refer to the engine manual.
Occasional skip (hesitates) at high speed	1. Spark plug gap too close. 2. Carburetor idle mixture adjustment improperly set.	1. Adjust gap to .030". 2. Refer to the engine manual.
Idles poorly	1. Spark plug fouled, faulty or gap too wide. 2. Carburetor not adjusted.	1. Reset gap to .030" or replace spark plug. 2. Refer to the engine manual.
Excessive vibration	1. Cutting blade loose or unbalanced. 2. Bent cutting blade.	1. Tighten blade and adapter. Balance blade. 2. Replace blade.
Mower will not mulch grass	1. Wet grass. 2. Excessively high grass.	1. Wait until later to cut. 2. Mow once at a high cutting height, then mow again at desired height.
Uneven cut	1. Wheels positioned incorrectly. 2. Dull blade.	1. Place all four wheels in same height position. 2. Sharpen or replace blade.

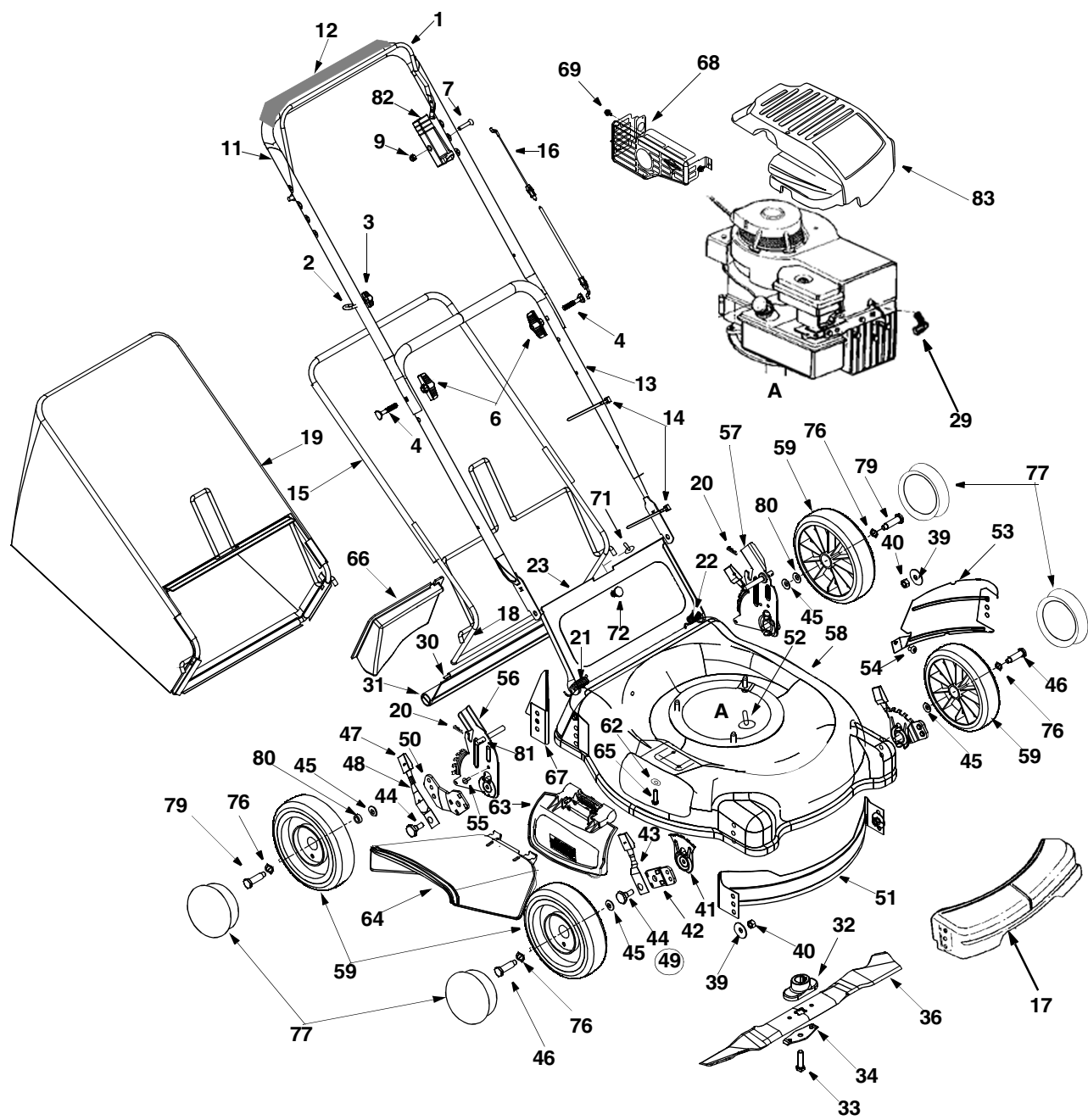
NOTE: For repairs beyond the minor adjustments above, contact your local Cub Cadet dealer or call the Customer Dealer Referral Line at 1(800)-528-1009.

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SECTION 10: PARTS LIST FOR MODEL PR-521



Model PR-521

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	647-0004	Control Handle Assembly	46	738-0102	Front Axle Bolt
2	710-1205	Rope Guide	47	720-0190	Spring Lever Knob
3	720-0279	Handle Knob 1/4-20 Thd.	48	732-0417A	Rear Spring Lever
4	710-1174	Carriage Bolt 5/16-18 x 2" Lg.	49	14578	Height Adj. Assy. Comp. - RH
6	720-0314	Hand Knob	N/I	14579	Height Adj. Assy. Comp. - LH
7	710-1270	Oval C-Sunk Mach. Scr.	50	14765	Pivot Bar R.H.
9	712-0324	Hex L-Nut 1/4-20 Thd.	N/I	14766	Pivot Bar L.H.
11	749-0705	Upper Handle	51	782-5002	Front Baffle
12	720-0295	Foam Grip	52	710-0654A	Hex L-Wash.Scr. 3/8-16 x 1" Lg.
13	749-0928	Lower Handle	53	782-5003	Rear Baffle
14	726-0240	Cable Tie	54	710-1017	Torx Mach AB-Tap Scr. 1/4 x.62"
15	764-0310	Rear Catcher Frame	55	710-0896	HexIndWash. Scr. 1/4-14:.625
16	746-0551	Control Cable - 43"	56	682-0516A	Handle Brkt. Ass'y.—RH
17	731-1523	Front Cover: Black	57	682-0515A	Handle Brkt. Ass'y.—LH
18	764-0311	Front Catcher Frame	58	782-0047A	Cutting Deck
19	764-0635	Grass Bag	59	734-2008	Wheel Black Link
20	714-0104	Int. Cotter Pin 5/16" Dia.	62	736-0270	Bell-Washer 1/4" I.D.
21	732-0678	Door Spring - R.H.	63	682-7000	Hinged Mulching Plug
22	732-0677	Door Spring - L.H.	64	731-1409	Chute Deflector: Side Discharge
23	782-7000	Rear Discharge Door	65	710-0599	Hex Hd Self-Tp Scr. 1/4-20 x .5" L.
29	735-0639	Spark Plug Boot	66	782-5007A	Mulching Baffle Plug
30	732-0700	Wire Rod	67	782-5004	Mulching Baffle - R.R.
31	731-1236	Rear Flap	68	751B224437	Muffler Guard
32	753-0588	Blade Adapter (Kit includes 32-34)	69	710-1268	Hex Washer Head Screw
33	710-1044	Hex Bolt 3/8-24 x 1.5" Lg.	71	710-0192	Truss Scr. #10-24 x .38" Lg.
34	736-0524A	Blade Bell Support	72	720-0275	Knob
36	742-0741	21" Mulching Blade	76	736-0504	Wave Washer
39	736-0356	Bell-Wash. .39" I.D. x 1.38"	77	731-0982A	Hub Cap - Rad. Spoke - Beige
40	712-0798	Hex Nut 3/8-16 Thd.	79	738-0213	Rear Axle Bolt
41	15261A	Height Adj. Plate	80	750-0535	Spacer
42	15262B	Pivot Bar	81	710-1248	Weld Pin
43	14832	Front Spring Lever Ass'y. w/Knob	82	746-0883	Control Housing w/o Lever
44	738-0507B	Shld. Bolt .5" Dia. x .357"	83	751B281440	Engine Shroud
45	736-0105	Bell-Wash. .38" I.D. x .88" O.D.			

NOTE: For **painted parts**, please refer to the list of color codes below. Please add the applicable color code, wherever needed, to the part number to order a replacement part. For instance, if a part, numbered 700-xxxx, is painted Cub Yellow, the part number to order would be 700-xxxx-0716.

Cub Yellow: 0716
Cub Beige: 0499
Powder Black: 0637

MANUFACTURER'S LIMITED WARRANTY FOR:



TWO-YEAR RESIDENTIAL ONE-YEAR COMMERCIAL

Proper maintenance of your Cub Cadet equipment is the owner's responsibility. Follow the instructions in your operator's manual for correct lubricants and maintenance schedule. Your Cub Cadet dealer carries a complete line of quality lubricants and filters for your equipment's engine, transmission, chassis and attachments.

Riding mowers, lawn tractors, garden tractors, Cub Cadet attachments and home maintenance products

This limited warranty for residential users, covers any defect in materials or workmanship in your Cub Cadet equipment for two years from the date of purchase for the first user purchaser. We will replace or repair any part or parts without charge through your authorized Cub Cadet dealer.

Batteries have a one-year prorated limited warranty with 100% replacement during the first three months.

V-belts for either the traction drive or any attachments are covered for one year only.

Cub Cadet equipment used commercially is warranted for one year only.

(Commercial use is defined as either having hired operators or used for income producing purposes.)

Items not covered

The warranty does not cover routine maintenance items such as lubricants, filters (oil, fuel, air and hydraulic), cleaning, tune-ups, brake and/or clutch inspection, adjustments made as part of normal maintenance, blade sharpening, set-up, abuse, accidents and normal wear. It does not cover incidental costs such as transporting your equipment to and from the dealer, telephone charges or renting a product temporarily to replace a warranted product.

There is no other express warranty.

How to obtain service

Contact your authorized Cub Cadet servicing dealer who sold you your Cub Cadet equipment. If this dealer is not available, see the Consumer Yellow Pages under "lawn mowers" for the name of a dealer near you.

If you need further assistance in finding an authorized Cub Cadet servicing dealer, contact:

**Cub Cadet Corporation
Post Office Box 368023
Cleveland, Ohio 44136**

How does state law apply?

This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.