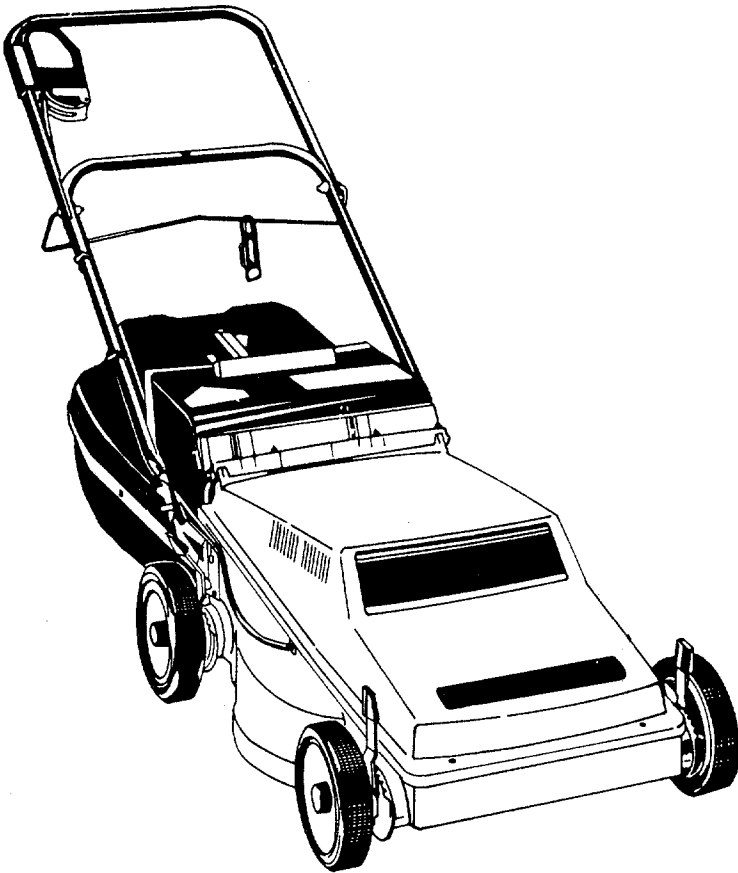


\$1.00

OWNER'S GUIDE

ASSEMBLY • OPERATION • MAINTENANCE • PARTS



**20''
ELECTRIC
ROTARY
MOWER**

**Model Number
181-184D002
(4410)
190-134-002**



Made
in
AMERICA

**IMPORTANT:
Read Safety Rules and Instructions Carefully**

IMPORTANT

RULES FOR SAFE OPERATION

⚠ 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 YOUR LAWN MOWER.

⚠ CAUTION

THE MOTOR CONTROL ON THIS MOWER IS INSTALLED TO MINIMIZE THE RISK OF BLADE CONTACT INJURY AND IS REQUIRED BY FEDERAL REGULATIONS. DO NOT UNDER ANY CIRCUMSTANCES ATTEMPT TO DEFEAT THE FUNCTION OF THE MOTOR CONTROL.

⚠ TRAINING:

- Read the Operation and Service Instruction Manual carefully. Be thoroughly familiar with the controls and proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Never allow children to operate equipment. Never allow adults to operate equipment without proper instruction.
- Keep the area of operation clear of all persons, especially small children and pets.
- Use the mower only as the Manufacturer intended and as described in the Operator's Manual.
- Store idle mower indoors - When not in use, mower should be stored indoors in dry, high or locked-up place - Out of reach of children.
- Do not operate mower after it has been dropped or damaged in any manner. Return product to nearest Authorized Service Center for examination and repair.
- The use of accessory attachments not recommended by the mower manufacturer may cause hazards.

⚠ PREPARATION:

- Objects struck by the lawn mower blade can cause severe injuries to persons. The lawn should always be carefully examined and cleared of all stones, sticks, wires, bones and other foreign objects.
- Dress properly - Wear only solid shoes when mowing. Do not operate mower when barefoot, or wearing open sandals. Do not wear loose clothing or jewelry. They can be caught in moving parts. Use of rubber gloves and substantial footwear is recommended when working outdoors.
- Never attempt to make a wheel height adjustment while the motor is running.
- Mow only in daylight or in good artificial light.
- Do not operate mower in damp or wet locations. Always be sure of your footing; keep a firm hold on the handle and walk never run.
- Do not use in rain.
- Don't force product - it will do the job better and safer at the rate for which it was designed.
- Don't abuse cord - never pull product by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
- Warning - to prevent shock hazard use only with an extension cord suitable for outdoor use.

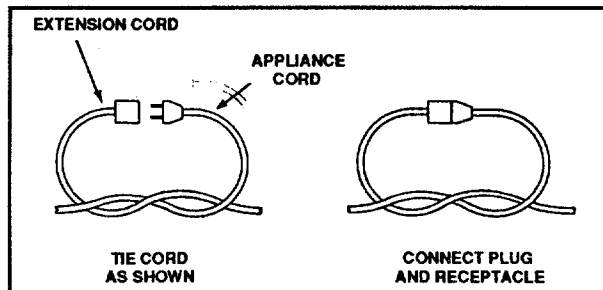
- Avoid accidental starting - don't pull plugged-in product with finger on switch. Be sure switch is off when plugging in.

⚠ EXTENSION CORDS:

- Use only UL approved outdoor extension cords of adequate gauge (min. 16 gauge recommended) which accept the appliance's plug. Replace or repair damaged cords. Extension cords are available at your dealer.
- To prevent disconnection of Lawn Mower from the extension cord during operation, use the strain relief connector described in this manual.
- Cord sets - Make sure your cord set is in good condition. When using a cord set, be sure to use one heavy enough to carry the current your lawn mower will draw. For lengths less than 50 feet, No. 16 AWG cord set should be used. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. (NOTE: Table below shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number the heavier the cord.)

Required Cord Gauge				
Motor Amp Rating	Cord Length in Feet			
	25	50	100	150
Wire Gauge				
10-12	16	16	14	12

- If extension cord is damaged in any manner while plugged in, pull extension cord from wall receptacle.
- To prevent disconnection of unit from extension cord during operation, make knot as shown in illustration, or use one of the plug receptacle retaining straps or connectors available at most hardware stores.



⚠ POWER SUPPLY:

- Fuses - The motor should be operated on a 15 AMP circuit. If difficulty in starting is experienced with a standard 15 AMP fuse or circuit breaker, contact your nearest Authorized Service Center.
- Frequent blowing of fuses - do not use a higher rated fuse without consulting your power company.

DOUBLE INSULATED LAWN MOWER

DOUBLE INSULATION IS A CONCEPT IN SAFETY, IN ELECTRIC LAWN MOWERS, WHICH ELIMINATES THE NEED FOR THE USUAL THREE WIRE GROUNDED POWER CORD AND GROUNDED SUPPLY SYSTEM. WHEREVER THERE IS ELECTRIC CURRENT IN THE MOWER THERE ARE TWO COMPLETE SETS OF INSULATION TO PROTECT THE USER. ALL EXPOSED METAL PARTS ARE ISOLATED FROM THE INTERNAL METAL MOTOR COMPONENTS WITH PROTECTING INSULATION.

IMPORTANT SERVICING OF A LAWN MOWER WITH DOUBLE INSULATION REQUIRES EXTREME CARE AND KNOWLEDGE OF THE SYSTEM AND SHOULD BE PERFORMED ONLY BY A QUALIFIED SERVICE TECHNICIAN. FOR SERVICE WE SUGGEST YOU RETURN THE LAWN MOWER TO YOUR NEAREST AUTHORIZED SERVICE CENTER FOR REPAIR. ALWAYS USE ORIGINAL FACTORY REPLACEMENT PARTS WHEN SERVICING.

⚠ OPERATION:

- Do not put hands or feet near or under rotating parts.
- Keep clear of the discharge opening at all times.
- Stop the motor whenever you leave the mower, before crossing drives, walks or roads.
- After striking a foreign object, shut off the motor, make absolutely sure the blade and all moving parts have completely stopped, disconnect the power cord to prevent accidental starting, then thoroughly inspect the mower for any damage. Such damage must be repaired before restarting and operating the mower. Remember, heavy vibration is generally a sign of trouble.
- If mower should start to vibrate abnormally, stop the motor and check immediately for the cause.
- Stop the motor, wait for blade and all moving parts to stop, before cleaning, unclogging chute, removing grass catcher, repairing or inspecting the mower. Always disconnect power cord to prevent accidental starting.
- Never operate the mower without proper guards, plates, or other safety protective devices in place.

- Never cut grass by pulling the mower towards you. Mow grass across the face of slopes, never up and down. Do not mow excessively steep slopes. Use caution when operating the mower on uneven terrain or changing direction; maintain good footing.

⚠ MAINTENANCE AND STORAGE:

- Maintain Lawn Mower With Care - Keep cutting edges sharp and clean for best and safest performance.
- Check the blade and the motor mounting bolts at frequent intervals for proper tightness.
- Check all bolts, nuts and screws, etc. at frequent intervals for proper tightness to be sure equipment is in safe working condition.
- To reduce fire hazard, keep the motor free of grass, leaves, or excessive grease.
- Check grass catcher bags frequently for deterioration and wear and replace worn bags. Check that replacement bags comply with original manufacturer's recommendations or specifications.
- Allow motor to cool before storing in any enclosure.
- Use identical replacement blades only.

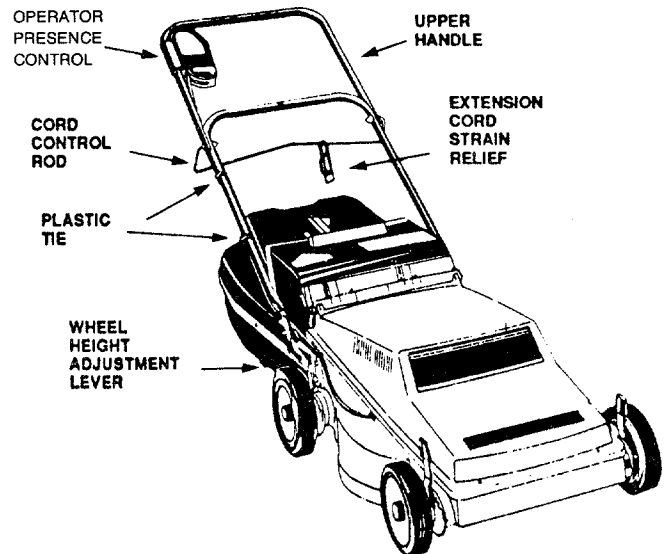
This Lawn Mower conforms to the safety standards of the American National Standards Institute, Underwriter's Laboratories & Outdoor Power Equipment Institute. Meets Consumer Products Safety Commission Blade safety requirements for walk behind rotary power lawn mowers.



ALWAYS WEAR EYE PROTECTION

The operation of any lawnmower can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields before starting power tool operation or while performing any adjustments or repairs. We recommend a wide vision safety mask for over spectacles or standard safety glasses, available at your nearest distributor.

REFERENCE ILLUSTRATION



This symbol on the products name plate means it is listed by
UNDERWRITERS LABORATORIES, INC



SET-UP INSTRUCTIONS



WARNING: DO NOT OPERATE THIS LAWN MOWER WITHOUT THE CHUTE DOOR OR AN APPROVED GRASS CATCHER IN PLACE.

Read this Manual in its entirety before attempting to assemble or operate the lawn mower. For shipping purposes, the lawn mower has been assembled at the factory with exception of the handles and grass catcher. All parts necessary to complete the assembly have been placed in the parts bag. **NOTE: Failure to follow all set-up and operating instructions will void the warranty on this product.**

NOTE: Before assembling or operating mower-check for damage and/or missing parts. **DO NOT OPERATE THIS MOWER UNTIL THE FOLLOWING STEPS HAVE BEEN COMPLETED.**

STEP 1

REMOVE MOWER FROM CARTON

- Remove twist tie securing upper handle to mower and carefully hang upper handle outside the carton.
- Remove cardboard packing inserts from carton.
- Remove mower from carton by gripping both ends of mower and place on level surface for set-up. See **REFERENCE ILLUSTRATION** on Page 3 for assembly assistance.

STEP 2

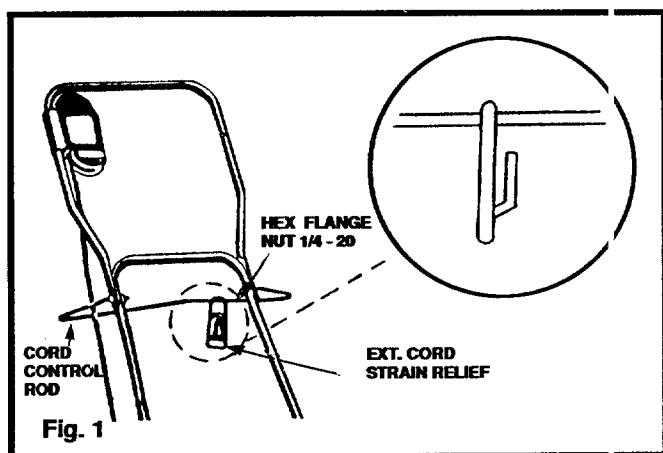
LOWER HANDLE

Unfold lower handle rearward and lock into operation position.

STEP 3

ASSEMBLE UPPER HANDLE

Remove and discard protectors on ends of upper handle. Remove Extension Cord Strain Relief and two (2) 1/4" - 20 Hex Flange Nuts from parts bag and the Cord Control Rod from carton. Position upper handle onto lower handle and align mounting holes. Slip one end of rod into handle holes on one side and secure with 1/4" - 20 hex flange nut. Slide Strain Relief onto loose end of Control Rod with tongue in direction shown (See Fig. 1). Carefully pull loose end of rod and insert in holes on the other side of handles. Secure with remaining nut and tighten nuts securely.



STEP 4

ATTACH PLASTIC CORD TIES

See **REFERENCE ILLUSTRATION** on Page 3 for location.

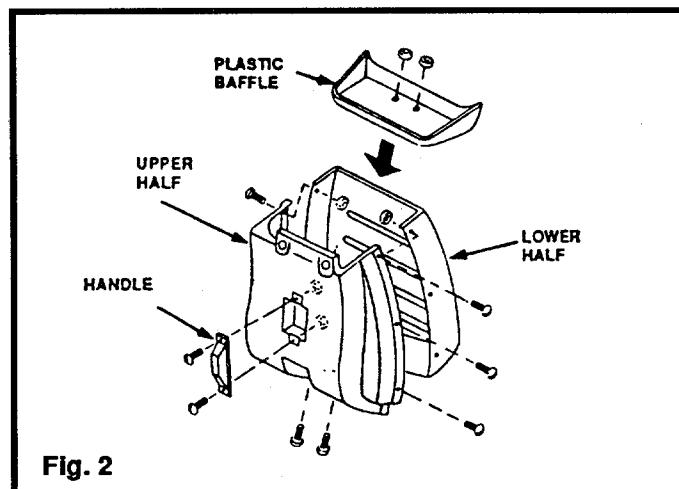
STEP 5

GRASS CATCHER ASSEMBLY

RIGID CATCHER (See Fig. 2)

For ease of assembly, assemble all fasteners loosely before tightening.

- Assemble plastic handle to catcher upper half with two (2) #10 machine screws and nuts supplied.
- Assemble plastic baffle to the rear of upper half in position shown (See Fig. 2).
- Position both halves of grass catcher as shown (See Fig. 2) and hook bottom lip of lower half inside the upper half.
- Assemble halves together and secure with #10 machine screws and nuts supplied. (**NOTE:** For ease of assembly, assemble the front two fasteners first-one each side-and then start at rear of catcher and come forward, alternating from side to side. If back portion of the halves are not seated properly, squeeze the lower half to seat into the upper).
- Tighten all fasteners securely.

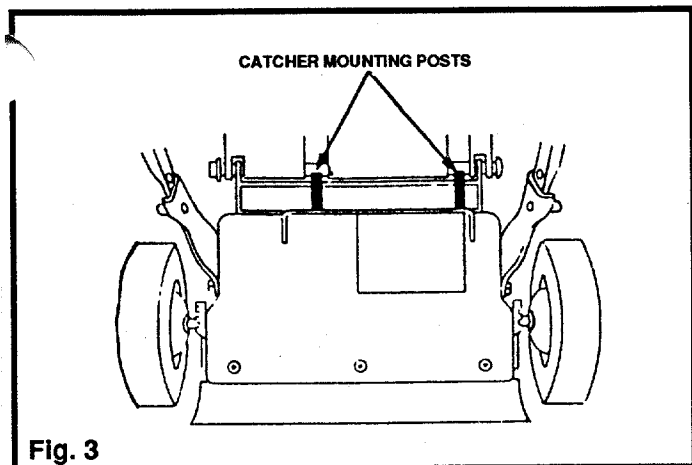


TO ATTACH RIGID CATCHER TO MOWER

- Place the grass catcher on the ground behind the lawn mower.
- Stand on the left side of the mower and open the chute door with your left hand.
- With your right hand, reach through the lower handle to lift grass catcher and push forward onto rear of mower.

4. Continue to hold chute door open and push catcher further forward, lifting slightly and then down until catcher hooks on mounting posts and rests snugly on rear of mower (See Fig. 3).

5. After catcher is positioned on mower - release chute door and allow it to rest on the catcher.



TO REMOVE RIGID CATCHER FROM MOWER

Simply lift up chute door and pull catcher up and away from mower.

CAUTION

UNDER NORMAL USAGE, THE CATCHER MATERIAL IS SUBJECT TO DETERIORATION AND WEAR AND SHOULD, THEREFORE, BE CHECKED FREQUENTLY FOR REPLACEMENT. ANY REPLACEMENT CATCHER SHOULD BE CHECKED TO ENSURE COMPLIANCE WITH ORIGINAL MANUFACTURER SPECIFICATIONS.

OPERATING INSTRUCTIONS

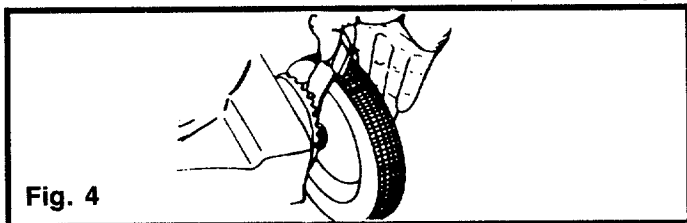
Before using your lawn mower, again refer to the "Rules for Safe Operation" as shown on the inside of the front cover of this manual. Always be careful.

WHEEL HEIGHT ADJUSTMENT

WARNING
Turn off motor and disconnect power cord before adjusting wheels.

WHEEL ADJUSTORS

To change the cutting height, squeeze lever and wheel together, then rotate to desired position. This is a 9 position cutting height adjustment and its range is from 1-1/8" to 3". Adjust all four wheels to the same position (See Fig. 4).



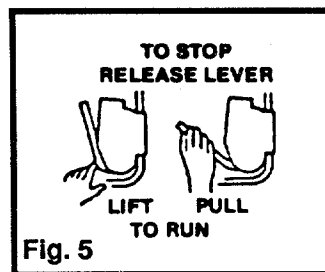
NOTE: The heights of cut are measured from the ground to the blade tip with the motor not running. These heights are approximate and may vary depending upon soil conditions, height of grass and types of grass being mowed.

The average lawn should be cut approx. 1-1/2 to 2 inches during the cool season and over 2 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.

SAFETY OPERATOR PRESENCE CONTROL

Your mower is equipped with a Safety Operator Presence Control which prevents unintentional starting of the motor. **TO RUN** - Lift lever with your left forefinger and pull lever up with your right hand. **TO STOP** - Release lever and motor will automatically shut-off (See Fig. 5.)

CAUTION THE MOTOR CONTROL ON THIS MOWER IS INSTALLED TO MINIMIZE THE RISK OF BLADE CONTACT INJURY AND IS REQUIRED BY FEDERAL REGULATIONS. DO NOT UNDER ANY CIRCUMSTANCES ATTEMPT TO DEFEAT THE FUNCTION OF THE MOTOR CONTROL.



BLADE BRAKING FEATURE

Your lawn mower has a braking feature. When the switch is turned off (lever is released), the blade will stop in less than 3 seconds.

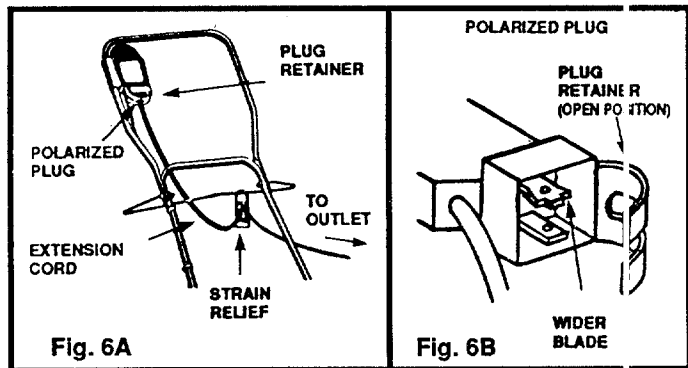
THE HIGH PITCH NOISE THAT YOU WILL HEAR IS THE DECELERATION OF THE ELECTRIC MOTOR. SPARKING AT TOP OF MOTOR (BENEATH THE MOTOR COVER) IS ALSO NORMAL DURING DECELERATION.

IF MOTOR DOES NOT COME TO IMMEDIATE STOP UPON RELEASE OF MOTOR CONTROL LEVER, CONTACT AN AUTHORIZED SERVICE DEALER.

CORD CONNECTION

WARNING: Make sure switch lever is in "OFF" position.

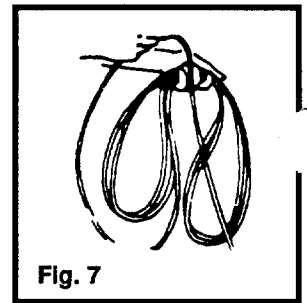
Connect extension cord to strain relief. Allow enough excess cord to make switch box connection (approx. 32 inches) so cord will not separate from switch box when strain relief is in its furthest position from switch box (See Fig. 6A). Swing open spring loaded plug retainer and insert extension cord connector fully into switch box plug.



NOTE: Your mower is equipped with a polarized AC power plug (one blade of the plug is wider than the other), which will fit into the power extension cord connector only one way (See Fig. 6B). Should you be unable to insert the cord connector fully onto the switch box plug, try reversing the cord connector. Should the connector still fail to fit, contact your dealer for assistance. Do not defeat the safety purpose of the polarized plug. Plug extension cord into outlet. See Page 2 for instructions on extension cords, power supply and grounding.

CORD WINDING TIP

To prevent snarling as you pick cord up wind cord in a series of equal length loops on each side of your hand (See Fig. 7).



MOWING PROCEDURE

Never mow around the lawn in circles. Always travel back and forth across the lawn, beginning at the point nearest the electric outlet where you connect cord. Gradually move away from outlet as the lawn is mowed (This will keep the cord on the same side of the mower and out of the way).

Do not allow extension cord to become wrapped around trees, shrubs or other obstacles. Follow the technique illustrated (See Fig. 8).

The length of the extension cord you will need depends on the size of the area to be mowed. See extension cord information on page 2.

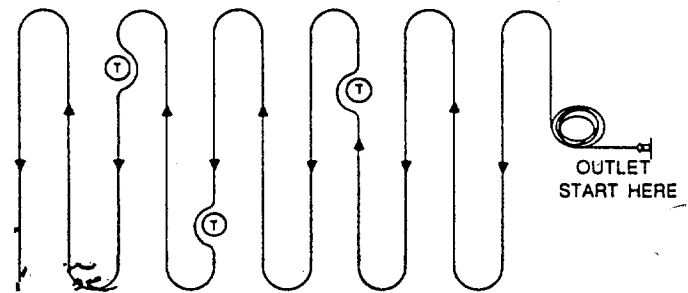


Fig. 8

MAINTENANCE AND STORAGE INSTRUCTIONS

WARNING: TURN OFF MOTOR AND DISCONNECT POWER SUPPLY BEFORE CHECKING THE LAWN MOWER.

1. Check blade at frequent intervals for proper tightness.
2. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
3. Remove any buildup of grass and leaves on or around motor cover (DO NOT USE WATER).
4. Turn lawnmower over and remove grass clippings with scraper from underside of deck. Wipe lawnmower clean with a dry cloth occasionally.
5. After each use check blade for sharpness and replace if necessary.

BLADE CARE

All lawn mower blades must be balanced to run smoothly. Your lawn mower blade has been checked at the factory. Resharpening is not recommended. Replace worn blade.

Always use original equipment. Do not use substitutes.

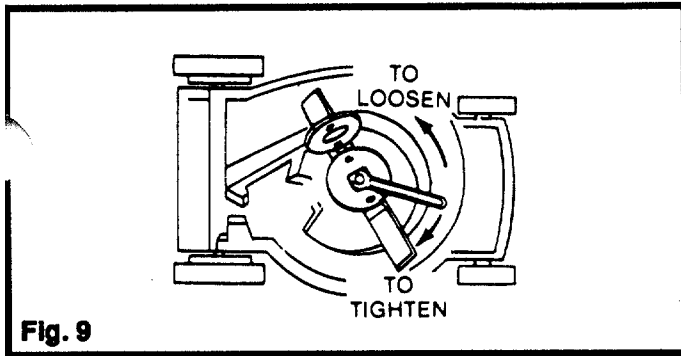
REPLACING BLADE

CAUTION: For proper operation, cutting edges of blade must be sharp. Always protect your hands by wearing heavy gloves and/or wrap cutting edges with newspaper or other materials when performing any blade maintenance.

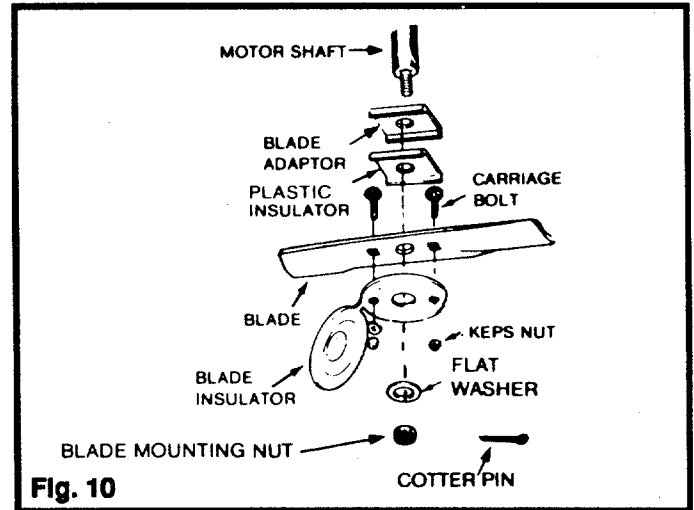
WARNING: Disconnect power supply before replacing blade.

Turn lawn mower on its side. Remove keps nuts and open blade insulator. Remove cotter pin, blade nut, flatwasher, blade insulator and carriage bolts (See Fig. 9 & 10).

When remounting new blade, all parts MUST be assembled in exact order as shown (See Fig. 10). Tighten blade nut securely (30-35 ft. pounds of torque). Re-insert cotter pin and bend ends to secure. (NOTE: If after tightening nut, the slot in nut is not aligned with hole in shaft, tighten nut only enough to allow cotter pin insertion).



WARNING: It is important that all parts be reassembled in positions shown (See Fig. 10).



STORAGE

Store lawn mower in a cool, dry place when not in use. Do not cover lawn mower with a solid plastic sheet. Trapping moisture around mower will promote rust and corrosion.



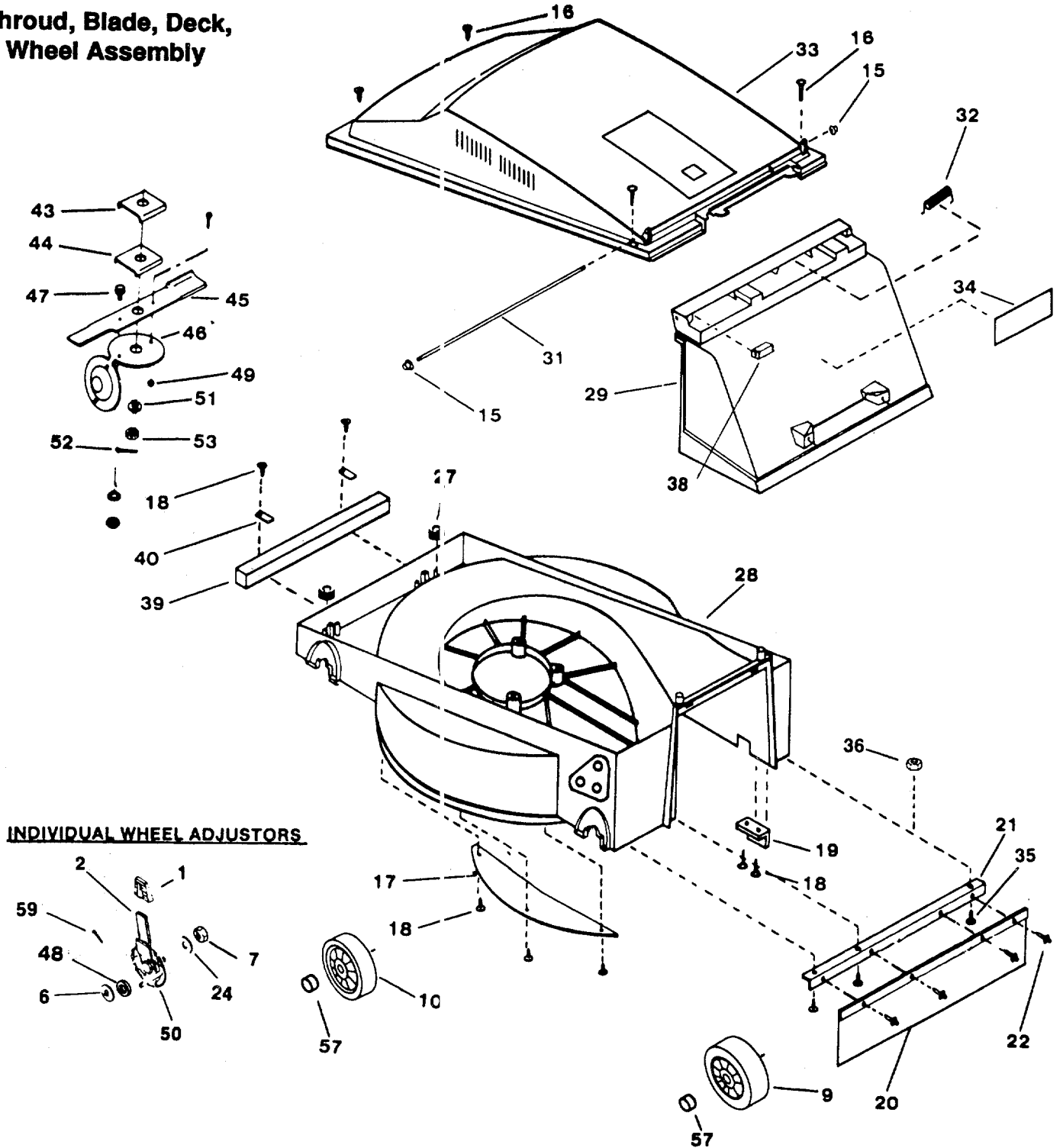
WARNING: Be sure power supply is disconnected.

Turn mower over and remove grass cuttings with scraper from under deck. Wipe lawn mower clean with a dry cloth occasionally.

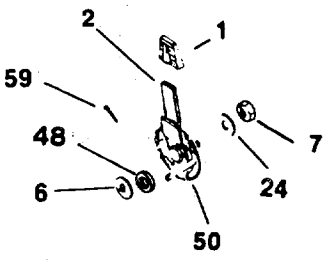
1. Make sure switch is in off position for storage.
2. Replace extension cord if cut or abraded.
3. Extension cord should be wiped dry of any foreign substances such as oil or stains.
4. Wind cord and store in cool, dry place (See winding tip on page 6).

Model 184D (4410)

Shroud, Blade, Deck, & Wheel Assembly



INDIVIDUAL WHEEL ADJUSTORS



⚠ WARNING: Insulator are safety components. It is important that all parts be reassembled in positions shown.

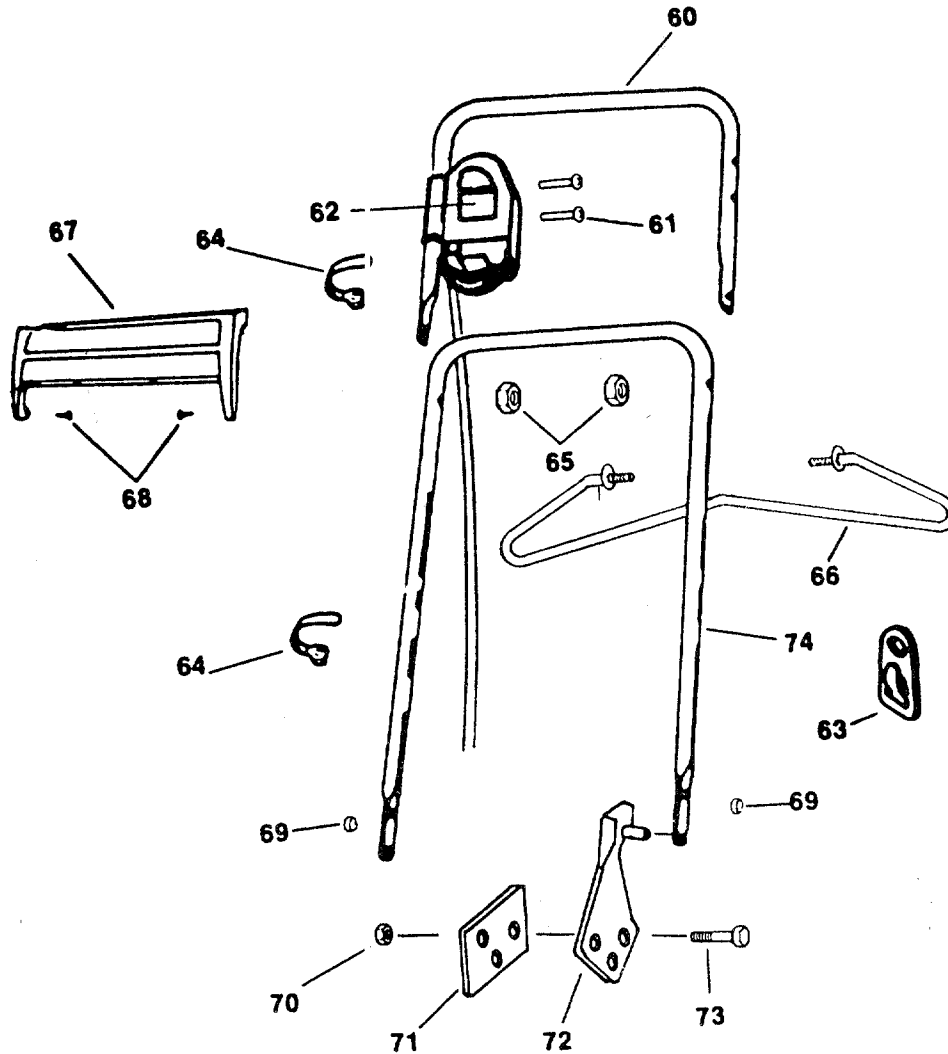
Model 184D (4410)

Shroud, Blade, Deck and Wheels

REF. NO.	PART NO.	DESCRIPTION
1	720-0239	Knob
2	787-0133	Handle-Wheel Adjust
6	736-3068	Flatwasher 1/2"
7	712-0431	Nut 3/8-16 Locking
9	734-1697	8" Wheel
10	734-1170	7" Wheel
15	726-0135	Retainer
16	710-1169	Screw #10-16 x 1"
17	782-7517	Cover Plate
18	710-1168	Screw #10-16 x 3/4"
19	782-9003	Retainer-Axle
20	720-0254	Trail Shield
21	782-7518	Hanger
22	728-0225	Blind Rivet
24	736-0300	Flatwasher 3/8"
27	726-0286	Fastener-Shroud
28	782-0106	20" Molded Deck (Black)
29	731-1243	Rear Door
31	750-0843	Pin-Rear Door
32	732-0665	Spring-Rear Door
33	731-1242	Shroud-Motor
34	777-9390	Decal-Data & Warning
35	710-0280	Screw # 10-24 x 3/4"
36	712-0161	Nut #10-24
38	731-1244	Block-Rear Door
39	711-0874	Counterweight
40	782-9004	Retainer
43	748-0343	Blade Adaptor
44	731-1218	Adaptor Insulator
45	742-0553	Blade-20"
46	731-1217	Blade Insulator
47	710-0451	Carriage Bolt 5/16-18 x 3/4" (Short Sq.-Neck)
48	750-0796	Plastic Wheel Spacer
49	712-0437	Keps Nut 5/16-18
50	642-0105	Adjustor (Right Front)
-	642-0107	Adjustor (Left Front)
-	642-0106	Adjustor (Right Rear)
-	642-0108	Adjustor (Left Rear)
51	736-0462	Washer (Special)
52	714-0228	Cotter Pin 3/32 x 1" (Stainless Steel)
53	712-0401	Blade Nut (Special)
57	720-0251	Hubcap (Optional)
59	714-0507	Cotter Pin 3/32 x 3/4"
-	770-7392F	Owner's Guide (Not Shown)

Model 184D (4410)

HANDLE DETAIL



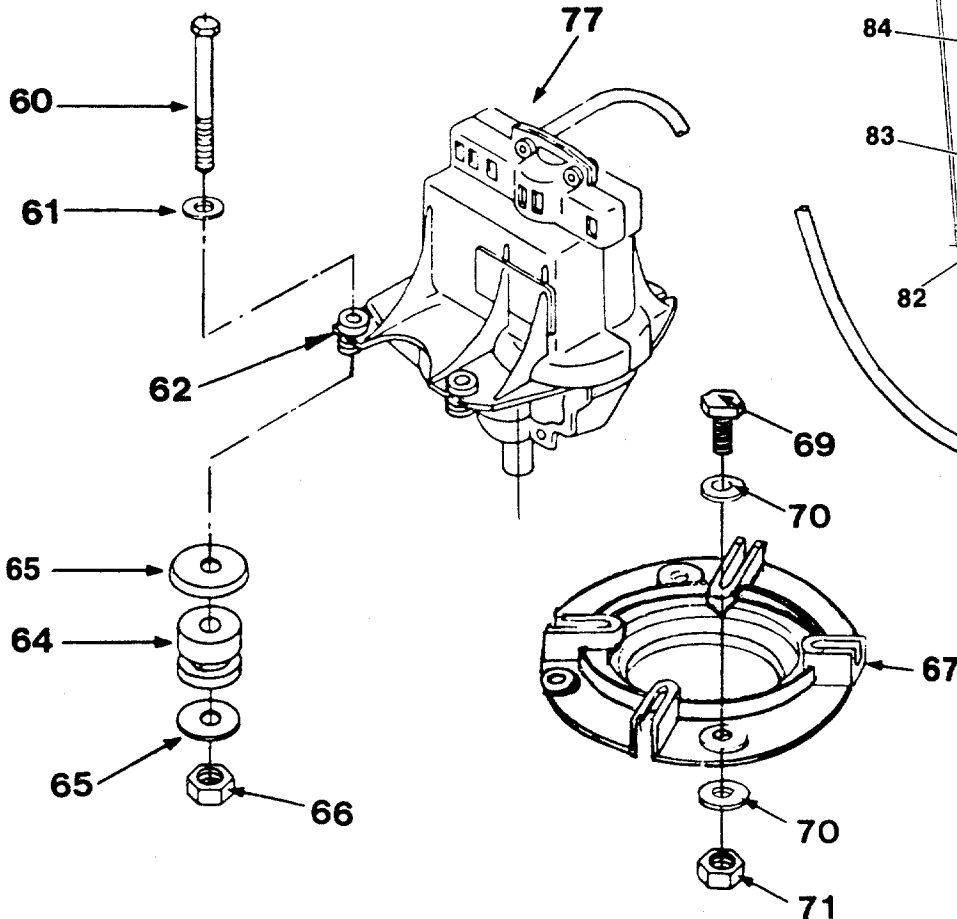
REF. NO.	PART NO.	DESCRIPTION
60	749-0842	Upper Handle
61	710-1150	Screw #7-19 x 1" Thread Forming
62	777-9380	Label - Switch Box
63	725-1590	Strain Relief (Extension Cord)
64	726-0303	Plastic Tie
65	712-0441	Lock Nut 1/4 - 20 Hex Flange
66	747-0790	Cord Control Rod
67	720-0273	Trim Panel (Optional)
68	710-1168	Screw #10 x 3/4" Tapping
69	714-0225	Cotter Pin 3/32 x 1/2"
70	712-0429	Hex Nut 5/16-18 Locking
71	782-3017	Nut Plate (LH)
72	682-3008	Handle Bracket
73	710-0376	Hex Bolt 5/16-18 x 1"
74	749-0843	Lower Handle

Model 184D (4410)

MOTOR, INSULATORS & SWITCH ASSEMBLY

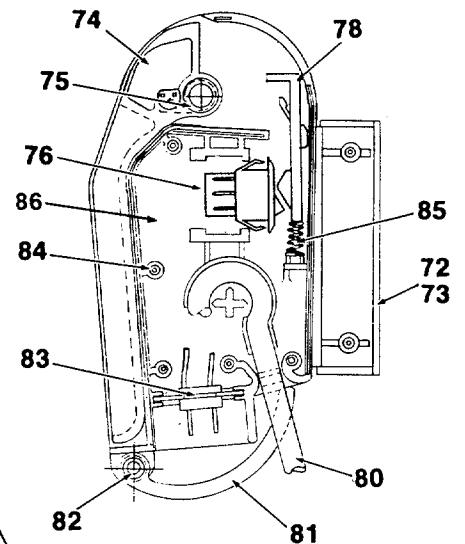
WARNING: Insulators are safety components. It is very important that all parts be reassembled in positions shown. Service replacement motors are supplied with motor mounting insulators attached.

WARNING: The motor is an important part of the double insulated system. To avoid the possibility of alteration or damage to the system, it is recommended that service be performed at a factory authorized service location.



SWITCH DETAIL

Complete Cord & Switch Box Assembly Key No. 68



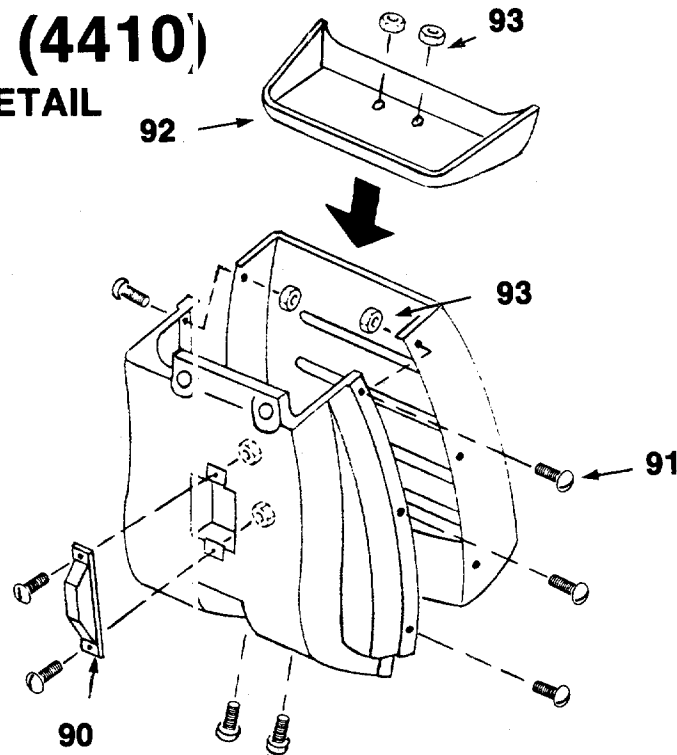
MOTOR MOUNTING DETAIL

REF. NO.	PART NO.	DESCRIPTION
60	710-1121	Hex Bolt 1/4-20 x 2" (Gr. 5)
61	736-0142	Flatwasher 1/4"
62	731-1216	Insulator-Motor Housing
64	721-0277	Grommet Assembly
65	736-0483	Flatwasher
66	712-0324	Nut 1/4-20 Locking
67	724-0173	Adaptor-Motor Mtg.
68	818-60000	Cord & Switch Box (Complete)
69	710-0342	Hex Bolt 3/8-16 x 1-1/4"
70	736-0262	Flatwasher 3/8"
71	712-0431	Nut 3/8-16 Locking
72	731-1208	Housing-Upper Half
73	731-1209	Housing-Lower Half (Not Shown)
74	731-1210	Handle-Switch Actuator

REF. NO.	PART NO.	DESCRIPTION
75	732-0694	Spring-Switch Handle
76	725-1565	Switch
77	818-60100	Motor & Switch Assembly
78	731-1198	Latch
80	818-60001	Cord Assembly (Includes #83)
81	731-1211	Plug Retainer
82	732-0680	Spring-Plug Retainer
83	729-0304	Plug Assembly
84	710-1147	Screw-Switch Box (Not Shown)
85	732-0681	Latch Spring
86	818-60002	Jumper Wire (Not Shown)

Model 184D (4410)

GRASS CATCHER DETAIL



REF. NO.	PART NO.	DESCRIPTION
90	720-0256	Handle-Plastic
91	710-1170	Screw-#10 x 5/8 Machine
92	764-0304	Baffle-Catcher
93	712-0435	Nut-#10-32 Hex Keys
-	190-126	Rigid Catcher Kit (Complete)

HOW TO ORDER REPLACEMENT PARTS

The model number will be found on a label attached to your mower. When ordering replacement parts, always give the following information:

1. Part Number
2. Part Description
3. Model Number - 131-184D000 / 4410
4. Name of unit - 20" Push Electric Lawn Mower