

OPERATOR'S MANUAL

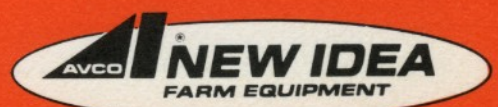


LG 1003

ELECTRIC RIDING MOWER R-36



For the Dealer and Operator
Read these instructions · Save it for reference



COLDWATER, OHIO 45828, U.S.A.

**AVCO NEW IDEA Farm Equipment Division,
AVCO Distributing Corporation
Lawn and Garden Warranty**

CUSTOMER WARRANTY

Riders, Attachments & Accessories

Subject to the warranty terms and conditions set forth herein AVCO NEW IDEA Farm Equipment Division, AVCO Distributing Corporation warrants its lawn and garden products to be free from defects in material or workmanship for a period of (1) year in ordinary home use (3 months if in commercial or institutional use) following the date of sale to the original purchaser.

Power Pack (Batteries)

Subject to the warranty terms and conditions set forth herein AVCO NEW IDEA Farm Equipment Division, AVCO Distributing Corporation warrants that it will replace any individual riding mower power pack unit with which this warranty is furnished if it fails because of defects in material or workmanship for:

12 Volt Power Pack --- 1 year full warranty and 2 year pro rata for ordinary home use (6 months in commercial or institutional use) following the date of sale to the original purchaser. After 1 year in home use, but within 36 months following the date of purchase a power pack will be replaced at a pro rata service charge equal to 1/36th of the list price for replacement unit multiplied by the number of months which have elapsed from the date of original purchase to the date of failure.

The charge for service labor during the first (1) year in ordinary home use (3 months if in commercial or institutional use) will be covered under warranty. Service labor after the first (1) year is the responsibility of the owner.

A replacement unit will carry the above (1) year warranty and thereafter will be considered to be installed on the same date as the other units in the power pack for pro rata adjustment.

The charge for service labor during the first (1) year in ordinary home use (3 months if in commercial or institutional use) will be covered under warranty. Service labor after the first (1) year is the responsibility of the owner.

A replacement unit will carry the above (2) year warranty and thereafter will be considered to be installed on the same date as the other units in the power pack for pro rata adjustment.

WARRANTY TERMS

Any parts that are proved, in the Company's judgment, to be defective during the above period will be repaired or replaced, free of charge and without charge for installation, at the place of business of an AVCO NEW IDEA Lawn and Garden Dealer. It is the purchaser's obligation to bring the product or parts to the Dealer's place of business. If this is not possible, it is the purchaser's obligation to reimburse the Dealer for travel time and travel expenses incurred in fulfilling this warranty.

The Dealer will properly set up and adjust the product at time of delivery. This warranty shall not entitle the purchaser to any further adjustments or normal maintenance services.

The warranty shall not apply to any Rider, Power Pack, accessories or attachments which have been repaired or altered in any way so as, in the Company's judgement, to affect its reliability, or which has been subject to misuse, negligence or accident, or attachments mounted on tractors which are not included in the Company's approved list, or repair parts which have not been approved by the Company for use in connection herewith.

THE ONLY REMEDY FOR ANY BREACH OF WARRANTY AND THE ONLY REMEDY FOR THE COMPANY'S LIABILITY OF ANY KIND, INCLUDING LIABILITY FOR NEGLIGENCE, WITH RESPECT TO ANY PRODUCT, SHALL BE LIMITED TO THE REPAIR OR REPLACEMENT OF ANY DEFECTIVE PARTS AS STATED ABOVE, AND SHALL IN NO EVENT INCLUDE ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EITHER EXPRESSED OR IMPLIED.



**R-36 RIDER
WITH 36" MID-MOUNT MOWER**

The R-36 Electric Riding Mower power is provided by three 12-volt Dry-Namic batteries, assuring you of the cleanest, most dependable and economical source of power.

The R-36 Electric Riding Mower also provides features such as: safety, ease of operation, economy, ruggedness and low maintenance.

It is very important that each operator fully understand the controls, safety and maintenance of the R-36 Rider; therefore, please take time to read the Operator's Manual carefully.

SPECIFICATION CHART

General

Width (rider)	34-1/4 Inches
Width (rider with mower attached)	47-3/4 Inches
Length (overall)	61-1/2 Inches
Height (overall)	39 Inches
Weight (with mower)	452 Lbs.
Frame	Steel

Brake	Disk
Front Tires	11 x 4.00-5
Rear Tires	13 x 5.00-6

Drive System

Power Pack	3-12 volt batteries
Transaxle5 speeds forward & 1 Reverse

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SAFETY



BE ALERT!

SAFETY IS IN YOUR HANDS

SAFETY PRACTICES

As with all power devices, prime responsibility for safe operation of the equipment rests with the operator. It is necessary that both operating instructions and the following safety information be fully understood by each operator before using the rider and attachments.

- Become familiar with the location and function of all controls.
- Be sure the work area is clear of objects such as stones, metal objects, or sticks, which might be picked up and thrown by the mower.
- Regulate travel speed according to ground conditions.
- Don't forget to set the brake and shut off attachment power before you leave the tractor.
- Don't drive too close to creeks or ditches, in order to avoid the chance of tipping.
- Watch out for traffic when near roadways.
- Rider or attachments should be stopped and inspected after striking a foreign object and any damage should be repaired before restarting and operating the equipment.
- Mow up and down the face of slopes; never across the face.
- Stay alert for holes and other hidden hazards.
- Watch where you're driving! Pay attention!
- Beware of steep slopes! Reduce speed on all side slopes and sharp turns to prevent tipping or losing control.
- Don't attempt to operate rider when not in seat.
- Don't carry passengers without proper provisions.
- Keep people and pets at a safe distance, especially in the direction of mower discharge.
- Don't wear loose-fitting clothing that might get caught in moving parts.
- Never attempt to get off the rider while it is in motion.
- Don't stop or start suddenly when going uphill or downhill. A sudden change of speed could upset the balance of rider or operator.
- Keep rider in good operating condition. Maintain all safety devices as indicated in this manual.
- Plug tractor charger cord into a normal 115-volt 3-hole grounded receptacle. Do not use a 2-hole adapter unless properly grounded.
- Keep hands and feet clear of all rotating equipment.
- Disconnect power cord connections from rider to attachment before handling or servicing power attachments.
- All safety devices are for your protection. Do not attempt to defeat them.
- Shut off power to attachments when transporting or not in use for safety and to conserve power.
- Take all possible precautions when leaving vehicle unattended; such as turning PTO switch to "Off", lowering attachments, setting parking brake, and removing key.
- Keep motors free of grease, leaves, or grass to prevent heat build-up.
- Use care when pulling loads or using heavy equipment.
 - Use only approved drawbar hitch points.
 - Limit loads to those you can safely control.
 - Do not turn sharply. Use care when backing.
- When using any attachments, never direct discharge of material toward bystanders or allow anyone near vehicle in operation.
- When using rider with mower:
 - Check blade mounting bolts for proper tightness at frequent intervals.
- Keep all guards in place on mower.

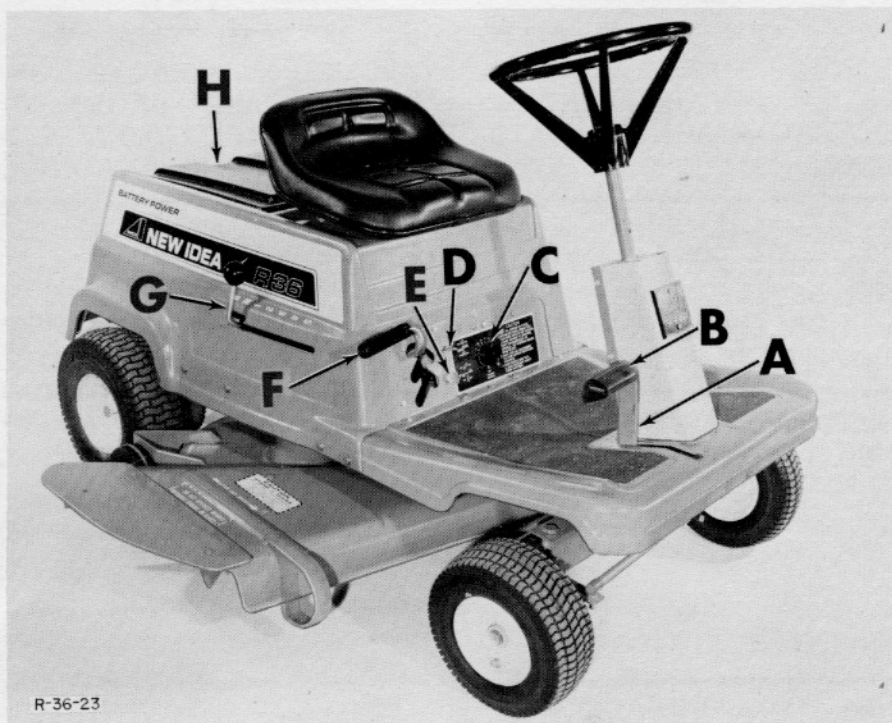


Figure 1

- | | |
|------------------|----------------------|
| A. Parking Brake | E. Key Switch |
| B. Clutch-Brake | F. Manual Lift |
| C. Charger Dial | G. Gear Selector |
| D. PTO Switch | H. Charger (plug in) |

Accessory Receptacle (121162) Optional

ATTACHMENTS

Trailing Lawn Sweeper (080-0010)
Dump Cart (080-001)

ACCESSORIES

36 volt D.C. Power Handle with 20 ft. cord (120628)
25 ft. D.C. Extension cord (120647)
*1/4" drill head (120630)

*15" hedge trimmer (120632)
*Grass trimmer head (120633)
Inverter (120641)
Lawn edger trimmer (120646)
Electric chain saw (120644)
Safety hitch pin 1/2 (120653)
Battery filler (120659)
Tire gauge (120660)
*Required power handle (120628)

NOTE:

ELECTRICAL ACCESSORIES REQUIRE THE INSTALLATION OF ACCESSORY RECEPTACLE (121162)

NOTE:

THE REAR PIN HITCH IS PROVIDED FOR LIGHT HAULING ONLY. HEAVY HAULING OR IMPACT PULLING, SHOULD NOT BE ATTEMPTED WITH THE R-36 RIDER.

Indication

Possible Causes

Drive motor does not run.

Sit in seat, shift to neutral.
Key switch not turned to "ON".
Motor temporarily overheated.

Mower inoperative, but drive motor runs.

Proper mower starting sequence not followed.
Mower motor power cord connectors not joined. (1)
Fuses blown or motors overheated. (2)
Only one mower motor will operate if the fuse of other motor has blown.

Reduced rider range.

Charger not started at proper dial setting.
Brake dragging. Readjust.
Power pack electrolyte level low.
Tires underinflated.
Failure to fully release clutch/brake pedal on long runs.
Improper lubrication.
Improper gear selection.
Loose or corroded battery cable connections.

Power Pack not charging.

20-amp fuse blown.
Charger not plugged into 115-V AC outlet.
115-V AC outlet inoperative due to open household fuse or circuit breaker.
Failure to start charger at proper dial setting.

(1) If one motor is disconnected, neither will operate.

(2) If the circuit breaker on the motor goes out, both mower motors will stop. This circuit breaker will automatically reset itself. After it has reset itself the mower switch must be turned to "START" again to turn the mower on.

● Accessory tools* inoperative.

● Tool plug not locked into accessory receptacle.
● Tool power cord or plug defective.

WARNING:
OPERATOR SHOULD NOT RELEASE CLUTCH/BRAKE PEDAL QUICKLY IN STARTING. THIS PRACTICE DRAWS HIGH CURRENT THROUGH THE DRIVE MOTOR AND CAN ALSO RESULT IN A SUDDEN SNAP START. SPECIAL CARE IN STARTING AND BRAKING ON HILLY TERRAIN IS IMPERATIVE FOR SAFE OPERATION SINCE THE BALANCE SHIFTS TO MAKE THE MACHINE LESS STABLE AS THE ANGLE OF GROUND INCREASES. SUDDEN STARTS UPHILL OR STOPS WHEN ROLLING DOWNHILL COULD UPSET STABILITY AND CAUSE POSSIBLE

DAMAGE TO THE EQUIPMENT OR INJURY TO THE OPERATOR.

STARTING SHOULD BE DONE BY SLOWLY RELEASING CLUTCH/BRAKE PEDAL UNTIL FULL FORWARD MOTION OCCURS. THE PEDAL SHOULD THEN BE FULLY RELEASED. DOWN SHIFTING TO A LOWER GEAR RANGE MAY BE NECESSARY IF THE STARTING LOAD IS HIGH OR IF THE RIDER SLOWS AFTER STARTING. RESTING YOUR HEEL ON FOOT-REST AND TIPPING FOOT AWAY FROM PEDAL CAN AID IN SLOW, SOFT, STARTS.



Figure 2

FIG. 2 - DASH CONTROL TO START

1. Disconnect the charger cord and place it around the cord wrap in the rear compartment.
2. For safety reasons, the rider will not start unless the operator is in the seat and the gear selector lever is in neutral.
3. Start the drive motor by turning the key switch "A" to "ON".
4. Depress the clutch/brake pedal "B" and release the parking brake.
5. Move the speed range selector "C" to the desired position (1, 2, 3, 4, 5 or reverse). A slight release of the clutch/brake pedal will facilitate shifting.
6. Slowly release the clutch/brake pedal.

NOTE: COMPLETE DEPRESSION OF THE CLUTCH/BRAKE PEDAL PROVIDES MAXIMUM BRAKING WITH NO TRANSFER OF POWER TO THE TRANSMISSION. PARTIAL DEPRESSION OF THE PEDAL ALLOWS THE RIDER TO CREEP, OR REGAIN FORWARD MOTION AFTER STOPPING UPHILL. AVOID PROLONGED RIDING OF THE PEDAL DURING OPERATION TO PREVENT EXCESSIVE WEAR.

TO STOP

1. Depress the clutch/brake pedal to stop the rider. To stop the drive motor, turn the key switch to "OFF".
2. Set the parking brake.

TO REVERSE

1. Depress the clutch/brake pedal to stop the rider.
2. Move the range selector "C" to the reverse ("R") position.
3. Slowly release the clutch/brake pedal.

⚠ CAUTION ⚠

ALWAYS TAKE THE KEY WITH YOU WHEN LEAVING THE RIDER UNATTENDED, EVEN FOR A FEW MINUTES. DON'T GIVE CHILDREN OR UNAUTHORIZED PERSONS AN OPPORTUNITY TO OPERATE THE MACHINE.

⚠ CAUTION ⚠

WHEN MOVING THE RIDER FROM PLACE TO PLACE ALWAYS RAISE THE MOWER TO ITS HIGHEST CUTTING HEIGHT POSITION AND PLACE MOWER SWITCH IN THE "OFF" POSITION.

OPERATION

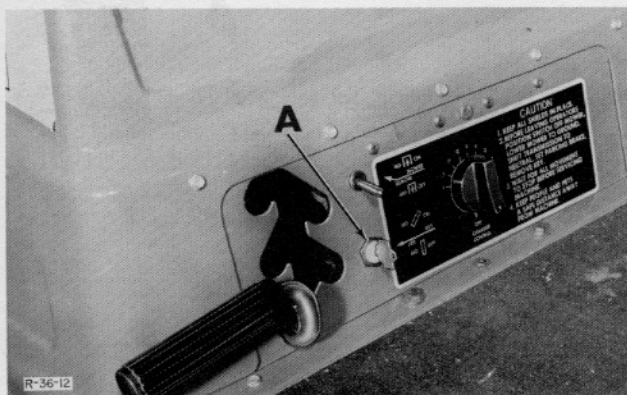


Figure 3

FIG. 3 - KEY SWITCH

The "OFF" position of the key switch "A" disconnects all electrical circuits with the exception of the charger. The charger circuit is active with the key in either the "OFF" or "ON" position. The clockwise "ON" position allows power to be supplied to the main drive and mower motors. The main drive motor is started after shifting to neutral and turning the key switch to "ON". The mower motors can then be started by moving the mower switch to "START".

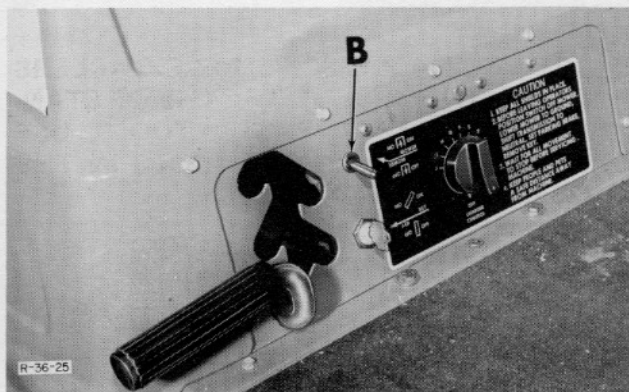


Figure 4

FIG. 4 - P.T.O. SWITCH

Before this circuit is operative the drive motor must be started in the normal manner. With the mower properly installed and the drive motor running, start the mower by holding the switch "B" in the "START" (Up) position momentarily. When the switch handle is released it automatically returns to the center "RUN" position. To stop the mower, move the switch down to the "OFF" position.

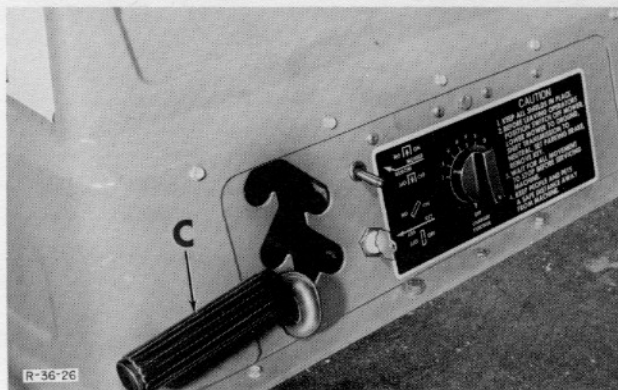


Figure 5

FIG. 5 - MANUAL LIFT

The mower lift "C" is used to raise and lower the mid-mounted mower. Cutting height may be adjusted with this handle for short, quick adjustments. For best mowing results the mower height should be adjusted at the mower height adjustment wheels. After adjusting the wheel height, always lower the mower lift handle to the bottom position for free mower movement.

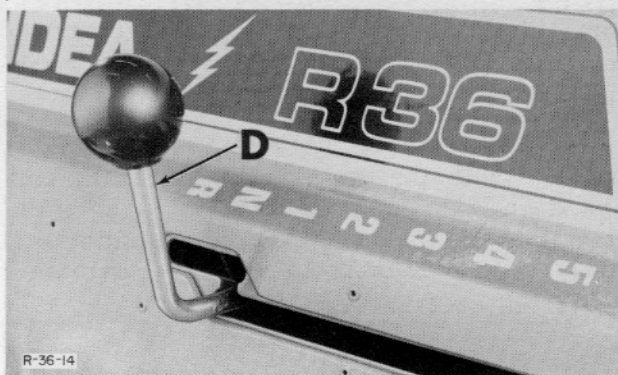


Figure 6

FIG. 6 - GEAR SELECTOR

The position of the gear selector lever "D" determines one of five forward speeds and one reverse, according to the pattern shown in Fig. 6.

Gear selection is made with a quick positive hand motion, with the clutch/brake pedal depressed.

The rider may be shifted while in motion by depressing the clutch/brake pedal to the point where the drive belt is released its maximum amount, yet before braking begins.

NOTE:

WHEN THE GEARS TO NOT MESH IMMEDIATELY, SLIGHTLY RELEASE THE CLUTCH/BRAKE PEDAL TO FREE THE GEARS, THEN MOVE THE LEVER TO THE DESIRED POSITION.

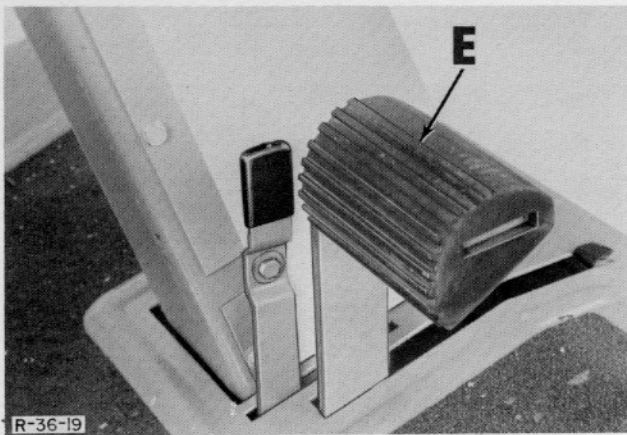


Figure 7

FIG. 7 - CLUTCH/BRAKE PEDAL

As its name implies, the clutch/brake pedal has more than one function. It is designed to permit smooth starting and creeping ability for maneuvering. As the pedal approaches full depression, the motor is fully disengaged and braking action begins.

NOTE:

THE CLUTCH MAY BE USED FOR SPEED CONTROL FOR SHORT PERIODS, BUT TO PROLONG THE LIFE OF THE DRIVE BELT, FULLY RELEASE THE CLUTCH/BRAKE PEDAL WHENEVER POSSIBLE. IF THE RIDER SPEED IS EXCESSIVE, MOVE THE GEAR SELECTOR TO A LOWER GEAR.

The rider is started by turning the key switch to "ON" with the gear selector in neutral and then depressing the clutch/brake pedal to shift. Move the gear selector to the desired position and slowly release the clutch/brake pedal. When motion occurs, fully release the pedal.

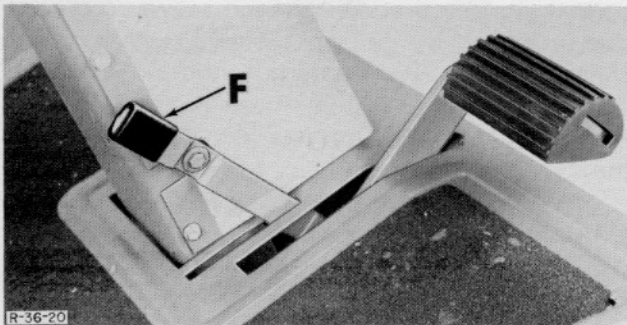


Figure 8

FIG. 8 - PARKING BRAKE

The parking brake lever is mounted next to the clutch/brake pedal. It operates in conjunction with the pedal. To engage the parking brake, fully depress the clutch/brake pedal and pull back the parking brake lever. When foot pressure is removed from the pedal it should remain in the depressed position. (See Fig. 8)

Release the parking brake by pressing on the clutch/brake pedal and pushing the parking brake lever forward.

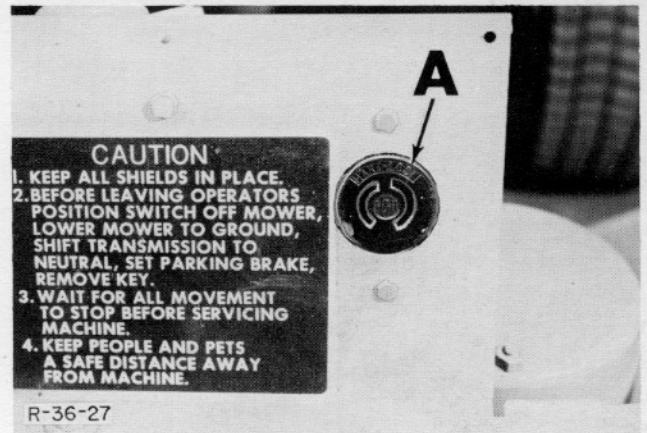


Figure 9

ACCESSORY RECEPTACLE

FIG. 9 - OPTIONAL ON R-36 RIDER
ORDER REPAIR NO. 121162

The accessory receptacle "A" on the R-36 Rider lets you take your power source to your work. A variety of 36-volt electric power tools, which are available from your dealer, will make your home and yard chores easy and enjoyable to do.

The accessory plug is inserted in the receptacle and turned clockwise slightly to lock it in place.

Voltage to this receptacle is always on regardless of the switch position.

NOTE:

THE 36 VOLT ACCESSORY RECEPTACLE IS DESIGNED TO PREVENT THE USE OF STANDARD 115 VOLT AC POWER TOOLS. USE ONLY APPROVED 36 VOLT TOOLS IN THE ACCESSORY RECEPTACLE.

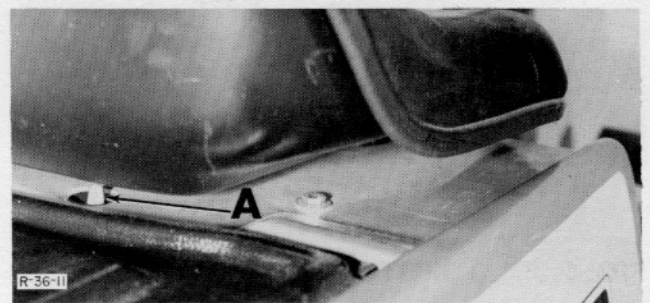


Figure 10

FIG. 10 - SEAT SWITCH

The seat must be occupied in order to close a switch which permits the drive motor and mower circuitry to operate. If the seat is vacated for any reason all power circuits are shut off. Under normal operation only the key switch and mower switch should be used for turning off power.

SAFETY INTERLOCKS

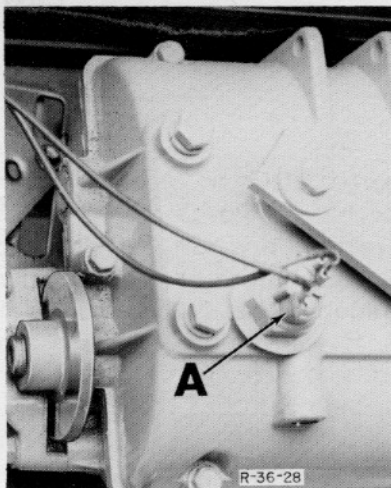


Figure 11

FIG. 11 - RETURN TO OFF

If power to the mower is interrupted by either the seat switch or turning the key switch to "OFF", it cannot be restored until the drive motor has been restarted and the mower switch turned to "START" (fully up) and then "RUN".

If power to the drive motor is interrupted, the transmission must be returned to neutral to re-start the return to off switch "A".

⚠ CAUTION ⚠

THESE SAFETY DEVICES ARE USED TO PROVIDE MAXIMUM SAFETY FOR THE OPERATOR OF THE R-36 RIDER. THEY SHOULD NEVER BE ALTERED AND SHOULD ALWAYS BE KEPT IN GOOD WORKING ORDER.

ELECTRICAL SYSTEM PROTECTION

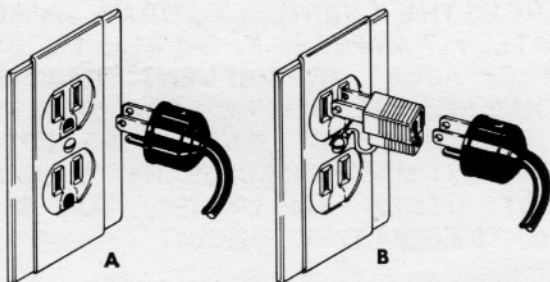


Fig. 12 Approved Electrical Outlets — Standard Grounded & Adapter Ground)

⚠ CAUTION ⚠

USE OF AN IMPROPERLY GROUNDED OUTLET COULD RESULT IN ELECTRICAL SHOCK THEREFORE:

1. CHECK TO SEE IF YOUR 115 VOLT OUTLET IS A GROUNDED TYPE. (FIG. 12A)
2. OR, AS AN ALTERNATIVE, YOU MAY USE AN ADAPTER IF YOUR ELECTRICAL OUTLET IS INTERNALLY GROUNDED. (FIG. 12B).

IF IN DOUBT, CONSULT A QUALIFIED ELECTRICIAN.

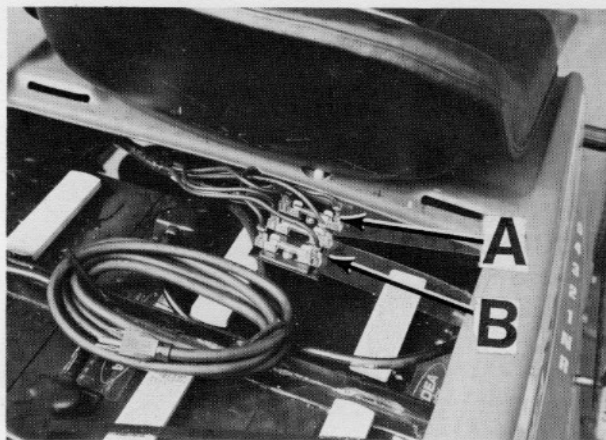


Figure 13

FIG. 13 - FUSE PANEL

Protective devices are used on the R-36 Riding Mower to protect electrical components and wiring. These devices detect both high current and high temperature, and will sense potentially severe conditions that could damage components or circuits. Under such conditions they remove power from the circuit involved.

Two types of protective devices are used — automatic reset circuit breakers and replaceable fuses. One type of automatic reset circuit breaker is located within the drive motor. If it should open due to high motor temperature, it will re-close automatically following a short cooling-off period. Operation can then be restored following normal starting procedure. Each mower motor is also protected by its own automatic reset circuit breaker which also resets automatically after a short cooling period. If these circuit breakers frequently interrupt mower operation, refer to the "Troubleshooting Check List" of this manual.

In addition to the circuit breakers, three automotive-type fuses protect the rider systems. They are located in the rear compartment. (See Fig. 13). Two 40-amp slow-blow fuses "B" (one for each motor) protect the mower motors. The third 20-amp fuse "A" protects the charging circuit. In addition, there is a protective fusible link mounted on the front panel to protect the heavy-duty wiring system against heavy overload.

Continued interruptions of power by any circuit breaker is a signal to reduce the load by selecting a lower speed or higher cut, to search for a fault such as jamming, or of an electrical problem may require dealer service.

POWER PACK CARE AND CHARGING

NOTE:

THE ELECTRIC RIDER SHOULD BE PLUGGED IN AND BROUGHT TO THE FULL CHARGE STATE AS SOON AS THE OWNER TAKES DELIVERY.

It is especially valuable to put the rider on charge during any short breaks in operation (10 minutes or longer), since the high rate of input during the early part of the charging cycle reactivates the power pack (the batteries) and prolongs the work period.

SINCE A NEW POWER PACK HAS A BREAK-IN PERIOD, IT IS RECOMMENDED THAT DEEP DISCHARGING (WHEN MOWER BLADES FIRST SHOW APPRECIABLE SPEED REDUCTION) BE AVOIDED FOR THE FIRST FIVE PERIODS OF OPERATION. THIS WILL HELP PROLONG THE LIFE OF THE BATTERIES.

The charger is designed to restore a full charge to the rider power pack (set of batteries) after one cycle of operation. Under normal conditions the charger will run up to 19 hours to equalize cell voltages (when started at the "START" position). Older power packs require less charging time. The charger runs independently of the rider key switch. Always remove the key to prevent unauthorized use of the rider.

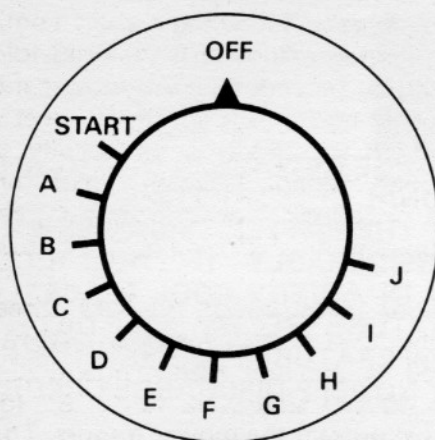


Figure 14. Charger Starting Positions

CHARGER STARTING POSITIONS

The amount of charging a power pack needs depends on three things:

1. The accumulative number of hours of operation since the last charge.
2. The temperature of the batteries.
3. The age of the batteries.

The charger dial starting positions are lettered "A" through "J". Position "A" is a very long charging period; position "J" is about half as long. The best indicator of the power pack's charging requirements is the amount of water to be added. If water must be added after one to three charges, the charger should be started at the next letter **below** that of the previous charge, for example, from "A" down to "B". The charger setting should not be varied more than one letter at a time, and two or more charges should be made before using a new knob setting. (Fig. 14)

As the batteries age and go through more charging cycles, the charging period can be decreased. Typical homeowner use allows a full charge to occur if started in the "A" to "D" position during the first to second year and "D" to "F" position after the second or third year of use.

As temperatures decrease, the charge time must be increased. For example, a power pack discharged to the same level will require as much as 50% more charge time for full recovery at 30°F. than at 70°F. In very cold weather the "A" position can usually be used for all charging.

When in doubt, it is better to overcharge (charge too long) than to undercharge, as long as there is not a high loss of water during charging.

NOTE:

A DEEPLY DISCHARGED POWER PACK REQUIRES THE CHARGER TO DRAW APPROXIMATELY 7-AMPERES FROM THE 115 VOLT RECEPTACLE. TO PREVENT 15-AMPERE HOUSEHOLD FUSES OR CIRCUIT BREAKERS FROM "OPENING" AND INTERRUPTING POWER, IT MAY BE NECESSARY TO DISCONNECT OTHER APPLIANCES, TOOLS OR LIGHTS FROM THAT CIRCUIT.

When the power pack is fully charged, the charger shuts off automatically. It is advisable to leave it plugged in after completion of the charging cycle. If the rider is needed, however, the charger may be turned off and unplugged any time after the charging cycle.

NOTE:

THE POWER PACK SHOULD NOT BE CHARGED IN AN AREA WHERE THE TEMPERATURE IS ABOVE 110°F. TO PREVENT OVERHEATING AND POSSIBLE DAMAGE TO THE BATTERIES.

POWER PACK

POWER PACK WATERING

During the late stages of the charging cycle, there is a bubbling action or gassing process which allows some water in the electrolyte solution to evaporate. Remember that during this charging procedure only water is lost; so it is only necessary to add water to bring up the electrolyte level to the proper point. Distilled water or tap water that is low to average in mineral content is satisfactory for use in the power pack.

Water should be added only after the power pack is charged. The only exception to this rule is if the water level should fall below the top of the plates. Sufficient water should be added to bring the electrolyte level just above the plates. The system should then be charged, and if necessary additional water added after charging. (This is because the electrolyte expands during charging.)

NOTE:

POWER PACK ELECTROLYTE CAN CAUSE IRRITATION OF THE SKIN AND MAY DAMAGE CLOTHING. ANY CONTACTED ELECTROLYTE SHOULD BE IMMEDIATELY NEUTRALIZED WITH A SOLUTION OF BAKING SODA AND WATER, OR WASHED THOROUGHLY WITH SOAP AND WATER.

Any electrolyte running out of the top of the cells is an obvious sign of overfilling. It is important that the electrolyte level be a minimum 1/4-3/8 inch above the plates and never above the indicator ring. Overfilling can result in dilution of electrolyte, which reduces capacity and life of the power pack. Overfilling can also cause corrosion where spillage of electrolyte occurs.

⚠ CAUTION ⚠

DURING THE CHARGING PROCESS HYDROGEN GAS IS FORMED. ALWAYS REMOVE THE BATTERY COMPARTMENT COVER AND CHARGE BATTERIES ONLY IN WELL-VENTILATED AREAS. DO NOT CHARGE NEAR FLAMES. DO NOT SMOKE NEAR THE RIDER DURING THE CHARGING PROCESS. ONLY AVCO NEW IDEA BATTERIES MAY BE USED AS REPLACEMENTS. FAILURE TO FOLLOW THIS WARNING MAY NEGATE THE BATTERY WARRANTY.

STORAGE

When storing the rider follow these guidelines:

1. Fully charge the power pack by setting the charger knob to the appropriate starting position, and letting the charger operate until it shuts off.
2. Add water to each battery cell to the proper level only.
3. The rider may be stored in the cold, provided the power pack is charged. A discharged power pack can freeze in cold temperatures unless recharged immediately after use. The following table illustrates the relationship between the amount of charge and the freezing temperature of electrolyte.

Amount of Charge	Freezing Temperature of Electrolyte
100%	-80°F
75%	-42°F
50%	-16°F
25%	- 2°F
10%	+ 7°F

Self-discharge of a fully charged power pack is practically non-existent below 40°F, and the rider can be stored for several months without attention when not used.

4. If stored in a warm area above 40°F, the electrolyte should be checked with a hydrometer once a month. Recharge the power pack if the electrolyte specific gravity is below 1.200.
5. Wipe oil on any rider parts that may be affected by rust.

REMEMBER:

THE CHARGE RETENTION (WITHOUT USING ADDITIONAL ELECTRICITY FOR RECHARGING) OF THE BATTERIES CAN BE EXTENDED CONSIDERABLY IF THE RIDER IS STORED IN A VERY COOL PLACE. LOWER TEMPERATURE SLOWS SELF-DISCHARGE. AT TEMPERATURES BELOW 40°F, VIRTUALLY NO SELF-DISCHARGE OCCURS.

⚠ CAUTION ⚠

AT TEMPERATURES BELOW 32°F, THE FULL CHARGE STATE MUST BE MAINTAINED TO PREVENT CELL ELECTROLYTE FROM FREEZING WHICH MAY RESULT IN PERMANENT DAMAGE TO THE BATTERIES.

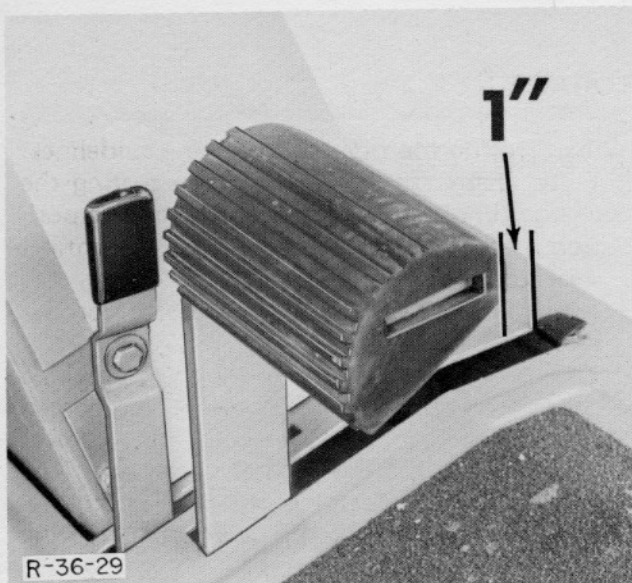


Figure 15

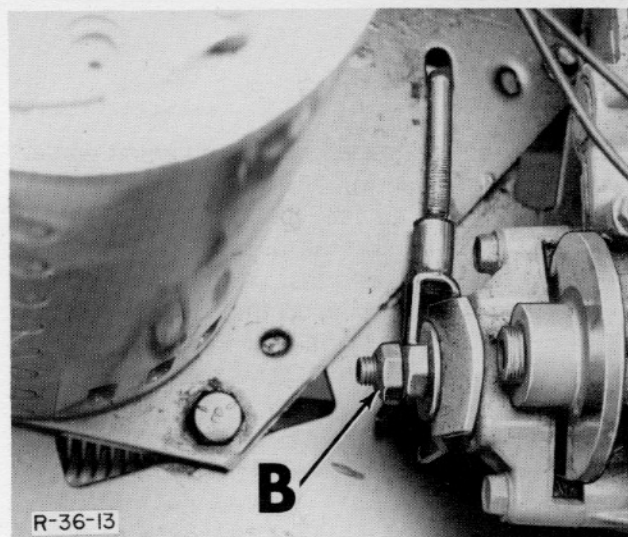


Figure 15A

FIG. 15-15A - BRAKE/CLUTCH ADJUSTMENT

NORMAL ADJUSTMENT

1. Depress the clutch/brake pedal to within 1 inch of full depression (to be measured at the opening in front of the pedal), Fig. 15.
2. Turn the brake adjustment nut until the brake disc firmly holds the wheels, "B", Fig. 15A.
3. Check the operation of the clutch/brake action. Make certain that the traction motor is declutched before brake engagement begins.
4. Lock the brake adjustment nut with the outer locknut.

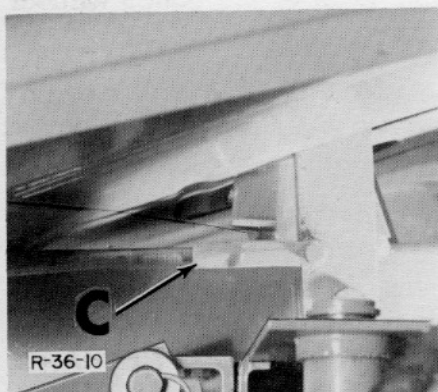


Figure 16

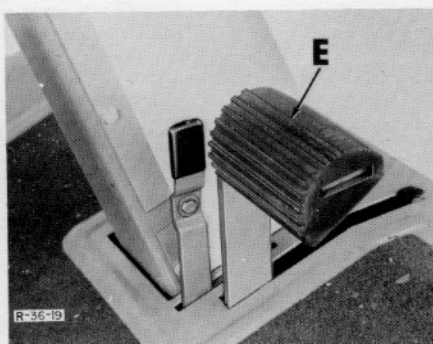


Figure 17

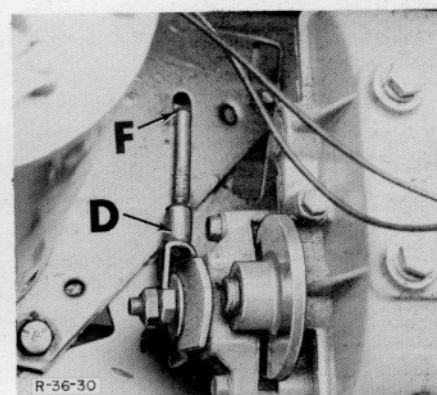


Figure 18

FIG. 16, 17, 18 - BRAKE/CLUTCH ADJUSTMENT CONT.

MAJOR ADJUSTMENT

The following adjustment was made at the factory. If it should be required due to extreme belt wear, or if the belt is being replaced, proceed as follows:

1. Adjust the clutch/brake rod "C" Fig. 16 by removing the pedal clevis pin and adjusting the clevis so that the pedal shaft "E" Fig. 17 is vertical, or in the extreme rear of the slot. Replace the clevis pin and secure with a cotter pin.
2. Remove the clevis pin "D", Fig. 18, from the transmission brake lever and adjust the clevis

so that the brake lever rod length lies from the rear edge of the motor plate slot "F" Fig. 18 to the transmission brake lever hole when the lever is vertical. Replace the clevis and secure with a cotter pin.

NOTE:

IT WILL BE NECESSARY TO LOOSEN THE BRAKE ADJUSTMENT NUT TO FREE THE LEVER FOR CLEVIS PIN INSTALLATION. RESET THE BRAKE ADJUSTMENT NUT AS INDICATED IN STEP 2 OF THE "NORMAL ADJUSTMENT".

ADJUSTMENTS

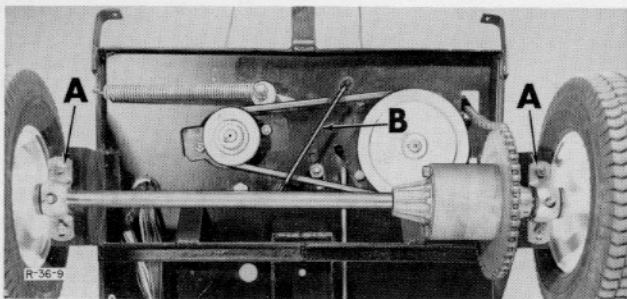


Figure 19

FIG. 19 - DRIVE CHAIN

Chain adjustment is made by loosening the four bolts at "A" holding the rear wheel bearings in place and sliding the axle assembly forward or backward. Retighten the four bolts after tightness is achieved. (See Fig. 19). Make sure the chain is squarely aligned on each sprocket.

BELT REPLACEMENT

Power is transmitted from the drive motor to the transmission through a heavy-duty direct-coupled belt. The belt should be kept free of grease, oil, electrolyte and dressings, and checked occasionally for tightness to assure best performance.

To change the belt, place the rider on a level area, set the gear selector in neutral, remove the key and set the parking brake. This will release the tension on the belt and free it from the pulley. Slide the belt under the belt keeper "B" Fig. 19 and off the second pulley. Install the new belt reversing this procedure. Check set screws in pulleys for tightness.

Belt tension is controlled by spring tension. No belt tension adjustments are provided. If the belt become stretched or worn so that it slips, it must be replaced.

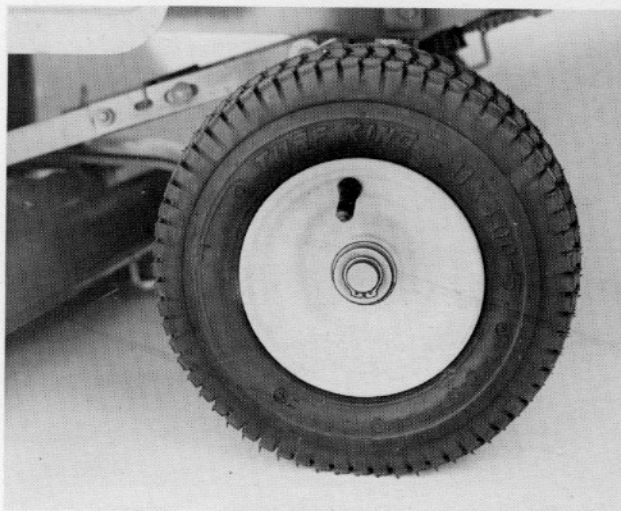


Figure 20

FIG 20 - WHEELS AND TIRES

Proper tire inflation is an important factor in tire life. Pressures should be checked on a monthly basis and corrected, if necessary, as follows:

Tire Inflation

Front	15 PSI
Rear	12 PSI

Avoid all stumps, holes and sharp objects. Any cuts occurring in the tires should be repaired immediately.

Wheel Removal

Special snap ring pliers are required for removal and replacement of wheels. The rear axles are slotted and the wheel rims protrude into the axle slots. To remove a wheel, take off the snap ring and pull the rim straight off of the axle. Grease the axle before replacing the wheel.

VISUAL INSPECTION

Periodic inspection of the tractor is an important preventive maintenance measure. Make it a habit to visually check for loose fastening devices or any evidence of abnormal operation. Inside storage or covering of the tractor will also give longer protection to the tractor.

Adjustments, inspections, and maintenance procedures on both the tractor and attachments should be performed at regular intervals to assure trouble-free, economical operation.

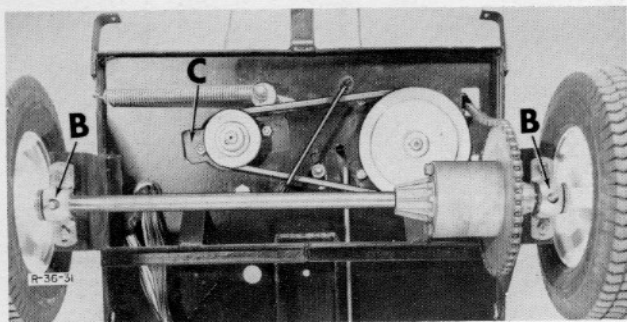


Figure 21

FIG. 21 & 22 - LUBRICATION

All electric motors in the rider are permanently lubricated. Several high-friction points do require periodic lubrication to prolong life and give maximum satisfaction.

Twice a year, or every 20 operating hours, the front spindles "A" and rear wheel bearings "B" should be greased using a No. 2 multipurpose lithium grease. The underside of the motor plate should be greased liberally at the three corners not secured to the rider frame.

NOTE:

THE DIFFERENTIAL AND TRANSMISSION ARE FACTORY PACK WITH E.P. LITHIUM GREASE.

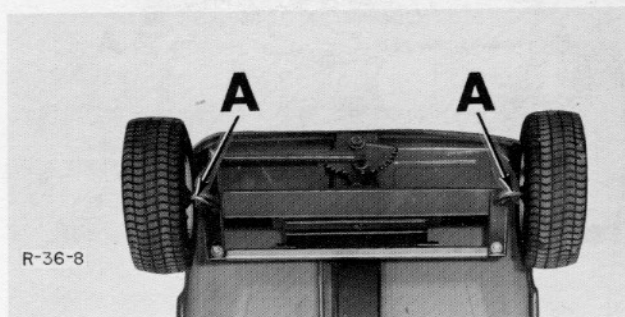


Figure 22

All linkages should be oiled with a heavy-duty (No. 30) machine oil. Major points to be considered include:

1. Clutch/brake pedal pivot and linkage connections.
2. Mower mounting pins.
3. Lift assembly pivot points.
4. Rear axle chain.
5. Front axle pivot pin.
6. Lift bars.

NOTE:

PREVENT DIRT AND DUST ACCUMULATION BY WIPING AWAY ALL EXCESS OIL. THESE LUBRICATION RECOMMENDATIONS ARE A GUIDE ONLY. IF THE RIDER IS SUBJECTED TO ABNORMAL ENVIRONMENTAL CONDITIONS OR HEAVY USE, THE FREQUENCY OF LUBRICATION AND OTHER PREVENTIVE MAINTENANCE MEASURES SHOULD BE INCREASED ACCORDINGLY.

ASSEMBLY PROCEDURE

NOTE:

THE R-36 RIDER IS PACKAGED COMPLETELY ASSEMBLED EXCEPT FOR THE INSTALLATION OF THE STEERING WHEEL, SEAT AND THE INITIAL FILLING OF ELECTROLYTE IN BATTERIES (FURNISHED BY DEALER) AND CHARGING THE BATTERIES.

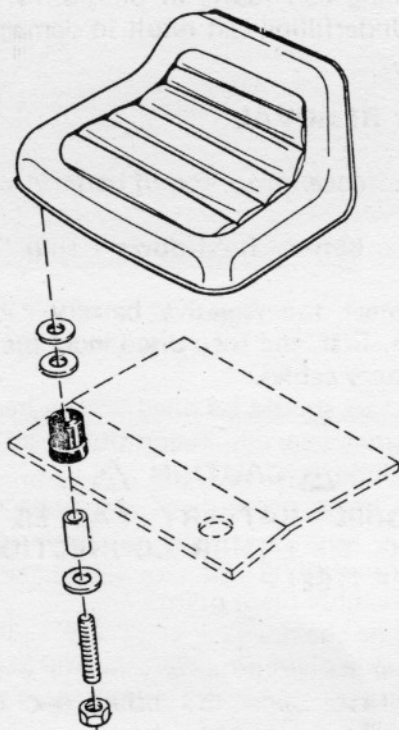


Figure 23

FIG. 23 - SEAT INSTALLATION

1. Mount the seat on the two rubber spacers in the seat support frame.
2. Install a 5/16 x 1-7/8 stud into the nut in seat.
3. Place (2) flat washers, metal sleeve over stud. Install into seat frame, follow by plain washer, lockwasher and nut.
4. The same procedure is followed for second bolt.

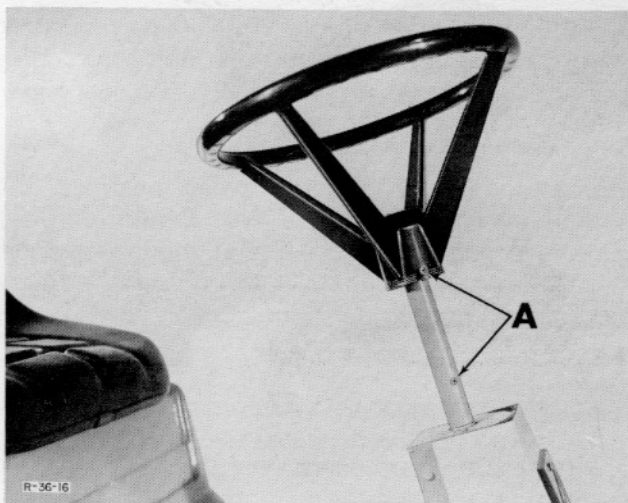


Figure 24

FIG. 24 - STEERING WHEEL

1. Install the steering wheel, lining up the hole in the wheel hub with the hole in the steering shaft at "A".
2. Secure the steering wheel with roll pin, centering the roll in the wheel hub so it is the same distance from lock end of the hole.

BATTERY SERVICE

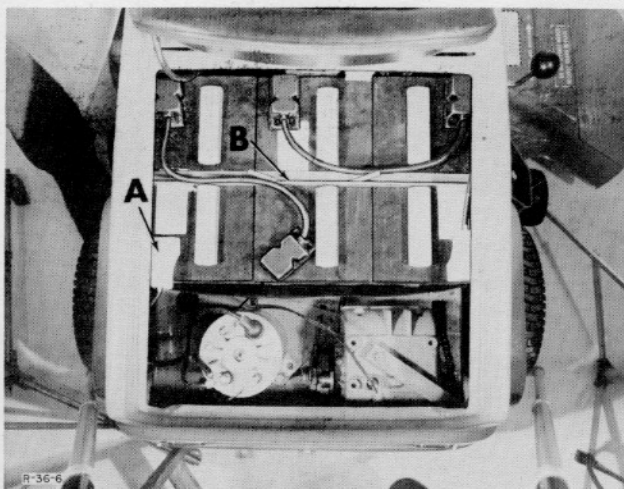


Figure 25

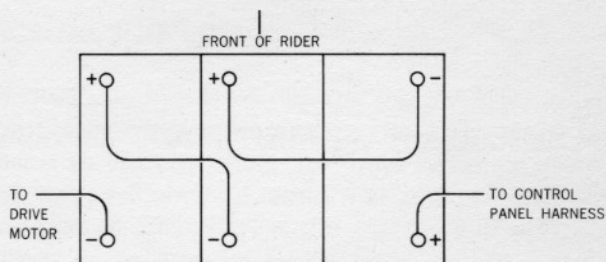


Figure 26

FIG. 25 & 26 - BATTERY SERVICE

⚠ CAUTION ⚠

ELECTROLYTE IS POISONOUS AND CAN BE INJURIOUS TO EYES, SKIN AND CLOTHING. IN THE EVENT OF AN ACCIDENT, FLUSH IMMEDIATELY WITH A SOLUTION OF ONE PART BAKING SODA TO FOUR PARTS WATER. NOTIFY PHYSICIAN IMMEDIATELY.

1. Remove cover from top of battery compartment.
2. **DISCONNECT THE NEGATIVE BATTERY CABLE "A" FIG. 25.**

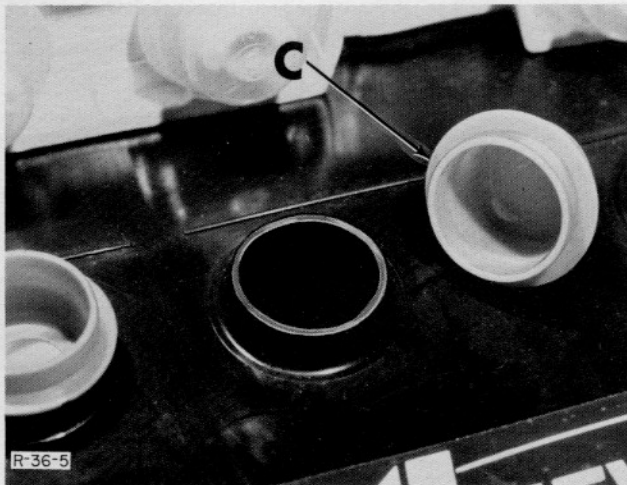


Figure 27

3. Remove the permanent vent caps.
4. Remove the temporary inner vent caps "C" Fig. 27. These caps are for shipping purposes, they **MUST** be discarded.

BATTERY SERVICE & MOWER INSTALLATION

5. Fill each cell with electrolyte with a specific gravity of 1.265. Fill each cell with electrolyte to obtain a level of 1/4 to 3/8 above the plates and never above the indicator ring. Overfilling can result in dilution of electrolyte. Underfilling can result in damage to the battery.

BATTERY REMOVAL

1. Remove cover from top of battery compartment.
2. Remove battery hold down clamp "B" Fig. 25.
3. Disconnect the negative battery cable "A" Fig. 25, first, and then disconnect the remaining battery cables.

⚠ CAUTION ⚠

KEEP LOOSE BATTERY CABLES FROM SHORTING TO OTHER CONNECTIONS OR THE RIDER ITSELF.

4. Remove the center battery from the compartment first. Slide the other two batteries toward the center and remove.
5. Check all batteries for damage to case before reinstalling. To reinstall, reverse procedure.
6. Hook up battery cables as shown in Fig. 26.
7. Make sure all connections are tight. Cover the battery terminals and clamps with a light coat of grease. Then cover the terminals with protective caps.
8. Charge the batteries, refer to Power Pack, Page 9.

MOWER INSTALLATION

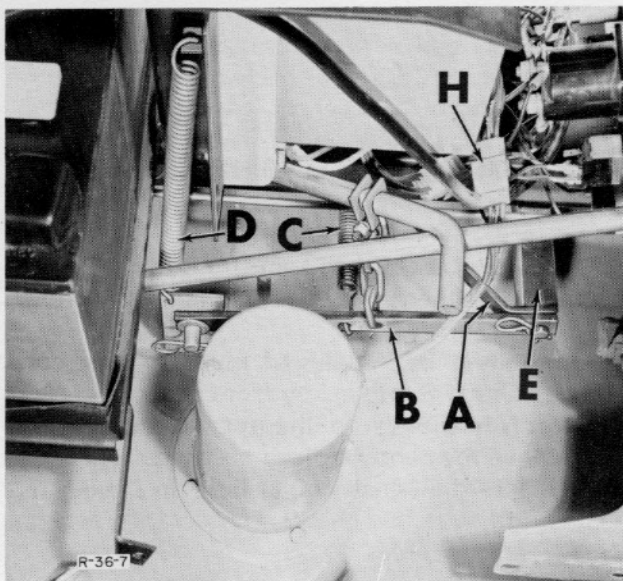


Figure 28

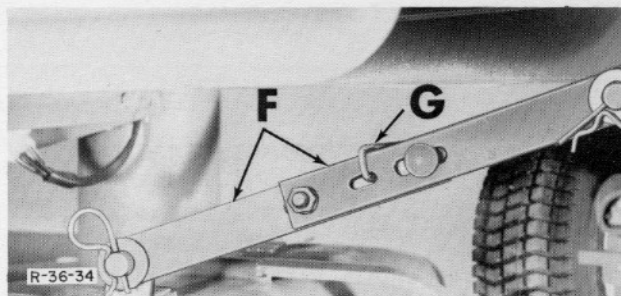


Figure 29

FIGS. 28 & 29

⚠ CAUTION: ⚠

THE MOWER COMES WITH BLADES ATTACHED AND SHOULD NOT BE ELECTRICALLY CONNECTED UNTIL IT IS FULLY MOUNTED AND THE BLADES HAVE BEEN CHECKED FOR TIGHTNESS.

1. Drive the rider to a flat level surface and remove the key. Lower the mower lift handle to its lowest position.
2. Raise the front end of the rider and place the mower under the rider in its approximate mounted position.
3. Lift the Z bracket "A" Fig. 28 from the mower deck and place the short end over the front left suspension angle "E", Fig. 28, and

- the long end over the left rear suspension pin bracket on mower deck.
4. Install suspension arms "B", Fig. 28, both sides over suspension pin and secure with flat washer and hair pins.
 5. Connect helper spring "C" between the two rear suspension arms as shown.
 6. Install left helper spring "D" to rear suspension bracket on mower deck to spring bracket underneath and to the rear of the seat place. Fig. 28.
 7. Install front suspension arms "F", Fig. 29, (both sides) using flat washer and hair pins.
 8. Install helper spring "G", Fig. 29, between the two front suspension arms.
 9. The front arm lengths can be used for leveling the mower in mowing position. These arms are factory set and should not require adjustment.
 10. Join each mower motor power cord connector to its corresponding power cord coming out of the bottom of the frame "H", Fig. 28.

NOTE:

THE CONNECTOR HALVES ARE KEYED TO FIT TOGETHER ONLY ONE WAY TO ESTABLISH PROPER POLARITY.

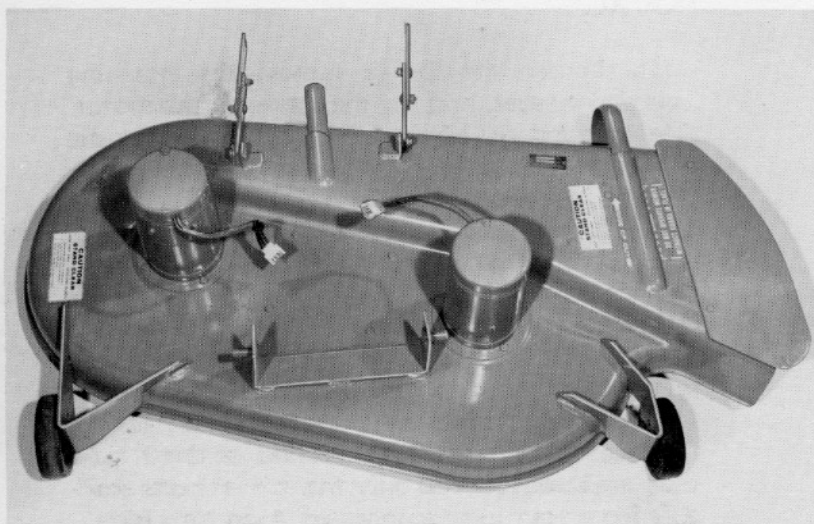


Figure 30

⚠ CAUTION ⚠

KEEP ALL SHIELDS AND MOWER DISCHARGE CHUTE IN PLACE. NEVER ATTEMPT TO CLEAR DISCHARGE CHUTE OR MOWER BLADES WITHOUT TURNING MAIN KEY SWITCH "OFF" AND REMOVING THE KEY.

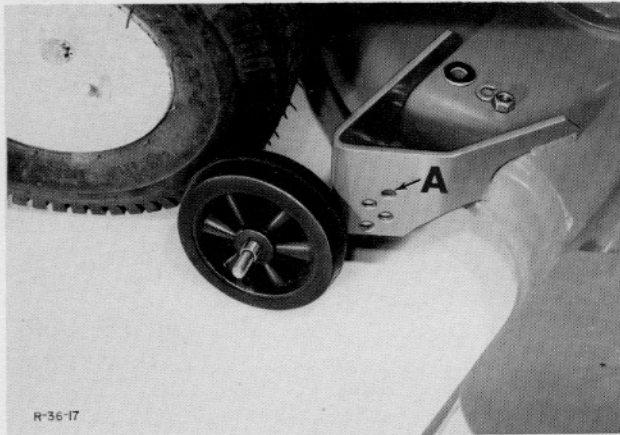


Figure 31

⚠ CAUTION ⚠

ALWAYS DISCONNECT BOTH PAIRS OF MOTOR POWER CORD CONNECTORS BEFORE HANDLING THE MOWER FOR ANY REASON. TURN MAIN KEY SWITCH "OFF" AND REMOVE KEY FROM SWITCH BEFORE TOUCHING BLADES.

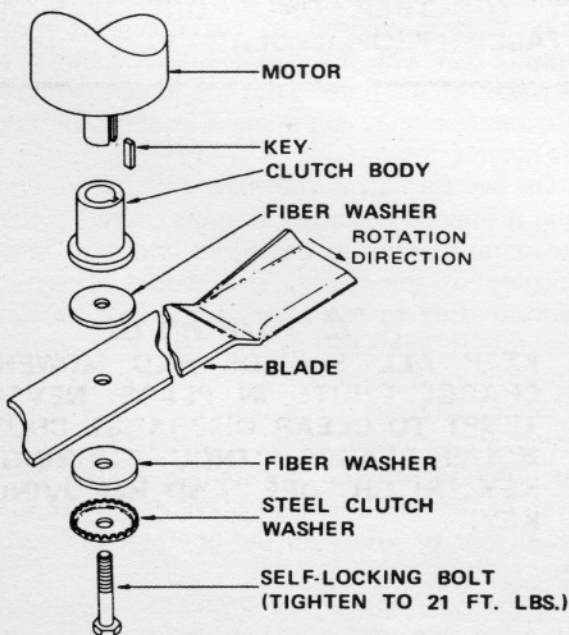


Figure 32

FIG. 31 - MOWER CUTTING HEIGHT ADJUSTMENT

The rear mower wheels are the only part that requires adjustment. Make adjustment as follows (Figure 31):

1. Disconnect both pairs of motor power cord connectors. Remove key from rider.
2. Raise the mower to the uppermost position.
3. Remove the center bolt of each rear wheel.
4. Relocate the wheel center bolts in the desired position.

NOTE:

THE UPPER ADJUSTMENT HOLE "A" GIVES THE LOWEST CUTTING HEIGHT AND THE LOWEST HOLE GIVE THE MAXIMUM LAWN CUTTING HEIGHT. THE OTHER ADJUSTMENT HOLES ALLOW INTERMEDIATE CUTTING HEIGHTS IN 1/2-INCH INCREMENTS.

5. Secure the wheel assemblies in desired position with lockwashers and nuts, making sure each wheel uses a similar mounting hole to keep the mower level.
6. Reconnect the motor power cords.

FIG. 32 - SHARPENING AND BLADE REMOVAL.

To sharpen the blades, remove the attaching bolt and washer, and lift the blade off the motor. File or grind the blade, taking care to retain the original cutting edge angle as well as blade balance. Inspect carefully for cracks or other damage which might weaken the blade and make it dangerous to reinstall. Replace the blade if damage is found.

Reinstall the blades, see Fig. 32, making sure the side of the blade with the lift area (turned up section) is facing the mower deck. Tighten the blade-attaching bolts to a torque of 21 ft./lbs. Replace these bolts every second or third time they are removed. Use only the special bolts available from your local authorized Avco New Idea.

MOWER CASE

1. It is recommended that the underside of the mower deck be cleaned frequently to maintain maximum mowing effectiveness and reduce the likelihood of blade clogging. The mower should be removed to facilitate effective cleaning.

NOTE:

THE USE OF WATER CAN DAMAGE BEARINGS IN MOTORS.

2. Mow high grass by making two passes, the first pass with the mower in its highest position. If there are low obstructions such as twigs or small stones in the mowing area, the second pass should be made with the mower still at a high setting to accommodate the obstructions.
3. Sharpen and balance blades as required, but at least seasonally.
4. Oil mower wheel axles and lift pivot points frequently with a 30 weight machine oil as indicated in the "Lubrication" section of this manual.
5. Turn to the right when beginning to mow large open areas to discharge clippings away from borders such as sidewalks, fences, driveways, etc. After making two or three passes this way, mow in the opposite direction turning to the left to finish. (See Fig. 34).

6. Turn to the left as much as possible so that grass clippings will be discharged evenly to the right over grass already cut. Turning to the right causes a build up of grass clippings which prevents uniform cutting and causes an unnecessary load on the mower.
7. Avoid mowing wet grass as this can cause chute and blade clogging which reduces the cutting effectiveness and overloads the motors.
8. Listen to the sound of the motor as an indication of loading. If mower motors slow down and the mower deck vibrates because of loading in tall or thick grass, reduce vehicle speed by selecting the next lower gear.

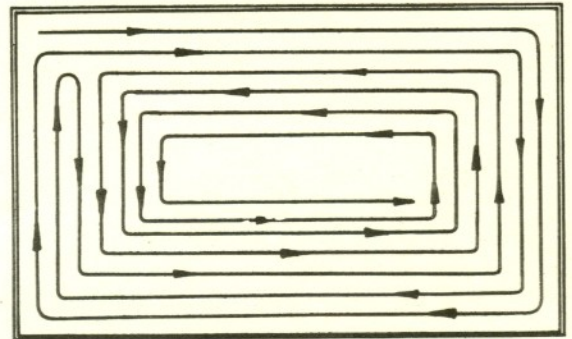


Figure 34. Mowing Pattern.

REMARKS

