OPS-74-4032

Elec-Trak®
ELECTRIC TRACTORS

owner's use and care manual

Model ER8-36

RIDER MOWER

CONTENTS

This manual does not purport to cover all possible applications or details or variations in equipment nor to provide for every possible contingency to be met in connection with operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purpose, the matter should be referred to your authorized ELEC-TRAK tractor dealer.

DEALER: Complete copies 1, 2, and 3 with required information. Mail copy 1 upon delivery. Retain copy 2 for your records.

DEALER DELIVERY REPORT

Dealer Code _____

Dealer _____ (Type or Print)

Address _____

City _____ State _____ Zip _____

Owner _____ (Type or Print)

Address _____

City _____ State _____ Zip _____

☐ HOMEOWNER WARRANTY ☐ COMMERCIAL OWNER WARRANTY

PRODUCT	MODEL NO.	SERIAL NO.	DATE OF SALE
ELEC-TRAK RIDER			

I have been instructed in the use and care of my new ELEC-TRAK rider.

_____ Purchaser signature

_____ Date

DEALER REFERENCE COPY

PURCHASER _____

ADDRESS _____

CITY _____

PHONE _____

BUSINESS ADDRESS _____ (If Commercial Owner)

STATE _____ ZIP _____

☐ HOMEOWNER WARRANTY ☐ COMMERCIAL OWNER WARRANTY

PRODUCT	MODEL NO.	SERIAL NO.	DATE OF SALE
ELEC-TRAK RIDER			
MOWER			

OWNER: Retain copy for future reference regarding service and parts.

OWNER REFERENCE COPY

DEALERSHIP NAME _____ (Please Print or Type)

ADDRESS _____

CITY _____ STATE _____ ZIP _____

☐ HOMEOWNER WARRANTY ☐ COMMERCIAL OWNER WARRANTY

PRODUCT	MODEL NO.	SERIAL NO.	DATE OF SALE
ELEC-TRAK RIDER			
MOWER			

I have delivered the above listed rider and shown operation procedures to the purchaser.

_____ Dealer signature

_____ Date

U.S. Postage
Permit No. 1
Schenectady, N.Y.

BUSINESS REPLY MAIL
No postage stamp necessary if mailed in the United States

– POSTAGE WILL BE PAID BY –

GENERAL ELECTRIC COMPANY, U.S.A.
OUTDOOR POWER EQUIPMENT OPERATION
CORPORATIONS PARK, BLDG. 702
SCHENECTADY, NEW YORK 12305, U.S.A.

Attention: Product Service

INTRODUCTION

Congratulations! You now own a fine product which has been built to assure you high quality and excellent service.

Electricity is the cleanest, most dependable and economical source of power. Every day, all around you and often taken for granted, electrical power is working for you . . . heating, cleaning, lighting, and cooling.

The ELEC-TRAK Ⓣ rider is the result of careful design engineering with the operator foremost in mind. Safety, ease of operation, economy, ruggedness, and maintenance-free features are built into your ELEC-TRAK rider.

This manual has been carefully prepared to instruct you in operating, maintaining, and lubricating your ELEC-TRAK rider. **IT IS VERY IMPORTANT THAT EACH OPERATOR FULLY UNDERSTANDS THE ENTIRE CONTENTS OF THIS MANUAL FOR SAFE, DEPENDABLE OPERATION AND TO PROLONG THE LIFE OF THE EQUIPMENT.**

Your ELEC-TRAK rider dealer and his local parts distributor are equipped with a complete stock of genuine ELEC-TRAK rider parts. He has factory-trained service personnel using the latest approved test and repair equipment, and will service your rider to provide efficient and economical operation. **UNAUTHORIZED SERVICE MAY VOID WARRANTY; HOWEVER BEFORE CALLING YOUR DEALER FOR SERVICE, SEE THE TROUBLESHOOTING CHECK LIST ON THE INSIDE BACK COVER.**

PLUG-IN . . . The Key to Automatic Refueling

The ELEC-TRAK rider is designed to refuel itself and always be ready for service if the charger is plugged in and the charger dial turned to the appropriate "Start" position. *IT SHOULD ALWAYS BE PLUGGED INTO A 3-WIRE (GROUNDED) 115-VOLT* OUTLET WHEN NOT IN USE.* When turned on, the charger replaces the power pack energy to the proper level. The charger will continue to operate after a full charge is reached, but the charge rate is very low and only assures maintenance and equalization of all the individual cells.

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 recharge cycle reactivates the power pack and increases the work period.

WARRANTY REGISTRATION

To validate your registration, your dealer must complete and submit to the General Electric Company, U.S.A., Section 1 of the Dealer Delivery Report.

Manager—Product Service
Outdoor Power Equipment Operation
General Electric Company, U.S.A.
Corporations Park
Schenectady, New York 12345 U.S.A.

Your dealer will also prepare copies of the Dealer Delivery Report for his records and your future reference.

Remember to specify the model and serial number when ordering parts.

Identification

The ELEC-TRAK rider vehicle and mower each have separate identification plates. The plate locations are illustrated in Fig. 1.

Fig. 1 Rider and Mower Identification Plates

NOTE	*Prior to initial use of the ELEC-TRAK rider, the user should familiarize himself with all rider controls and safety interlocks.*

Ⓣ Trademark of General Electric Company, U.S.A., not connected with the English company of a similar name.

*Riders not equipped with a 115-volt system will have an additional decal on the deck behind the drivers seat specifying the design voltage.

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.

- 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 mower power before you leave the rider.
- Don't drive too close to creeks or ditches, in order to avoid the chance of tipping.
- Watch out for traffic when near roadways.
- Vehicle and mower 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. Test brakes first.
- Stay alert for holes and other hidden hazards.
- Watch where you're driving! Pay attention! The rider is very powerful.
- Beware of steep slopes! Reduce speed on all side slopes and sharp turns to prevent tipping or losing control. Check brake adjustment first.
- Don't attempt to operate the rider when you are not in the seat.
- Don't carry passengers.
- 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 the rider or operator.
- Keep the rider in good operating condition. Maintain all safety devices as indicated in this manual.
- Plug the rider charger cord into a normal, three-hole grounded receptacle. Do not use a two-hole adapter unless it is properly grounded.
- Keep hands and feet clear of all rotating equipment.
- Disconnect the power cord connections from the rider to the mower before handling or servicing the mower.
- Shut off power to the mower when transporting or not in use, for safety and to conserve power.
- Take all possible precautions when leaving the vehicle unattended; such as lowering the mower, setting the parking brake and removing the key.
- Keep the motors free of dirt, leaves, or grass to prevent heat build-up.
- Use care when pulling loads.
  Check brake adjustment weekly.
  Tow only light-weight pin attachments.
  Limit loads to those you can safely control.
  Do not turn sharply. Use care when backing.
- When using the mower, never direct the discharge of material toward bystanders or allow anyone near the vehicle when in operation.
- When mowing:
  Mow only in daylight or in good artificial light.
  Check the blade mounting bolts for proper tightness (21 lb-ft.) at frequent intervals.
- Keep all guards in place on the mower.
- All safety devices are for your protection. Do not attempt to defeat them.
- Do not allow children to operate the rider.

OPERATION

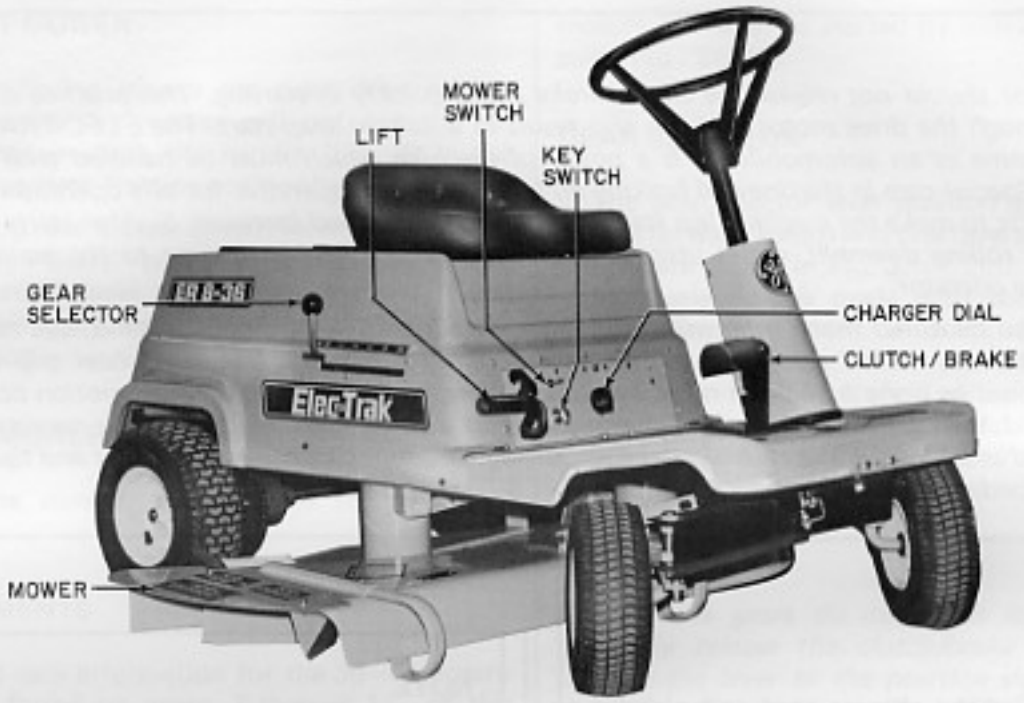

Fig. 2 ER8-36 ELEC-TRAK Rider Mower

PREPARATION FOR INITIAL OPERATION

Lubrication

When the rider is assembled and prepared for initial operation, it must be lubricated. The rear axle chain should have a light coat of engine oil applied to its full length. The front wheels should be liberally greased at the wheel bearings. Grease should be applied through the grease fittings on the wheels until a flow of grease is observed from the joint ends. Oil the nylon bearings on the front wheel spindles. Oil the rear axle shaft ends to prevent rust. Grease both ends of the lift bars, and rear axle bearings.

Charge Batteries

The ELEC-TRAK rider should be plugged in and put through a complete charging cycle as soon as possible after delivery. 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 operational periods. This will assure longer power pack life.

Check Tire Pressure

The tires should be inflated as follows:

Front tire pressure . . . . . .15 psi

Rear tire pressure . . . . . .12 psi

Adjust Mower Height

The mower height must be adjusted as described in the mower section of this manual. (See page 9.)

OPERATION

WARNING

The operator should not release the clutch/brake pedal quickly in starting. This practice draws high current through the drive motor and can also result in a sudden snap-start. The ELEC-TRAK rider is much the same as an automobile; it is a powerful machine which must be handled with care and judgment. 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.

It should also be noted that a rider will climb a steeper hill than it can safety descend, due to the shift of weight balance which results in more traction uphill but much less rear wheel grip downhill. 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.

TO START

1. Disconnect the charger cord and place it on the cord-wrap in the rear compartment.
2. The operator must be seated in the seat.
3. Shift the gear selector lever to neutral. The motor will not start in any other gear selection.
4. Turn the key switch to "On". The drive motor will start.
5. Fully depress the clutch/brake pedal and release the parking brake.
6. Move the range selector to the desired position (1, 2, 3, 4, 5, or Reverse). A slight release of the clutch will facilitate shifting (Fig. 3).
7. Slowly release the clutch/brake pedal.
8. When forward motion occurs, fully release the pedal.

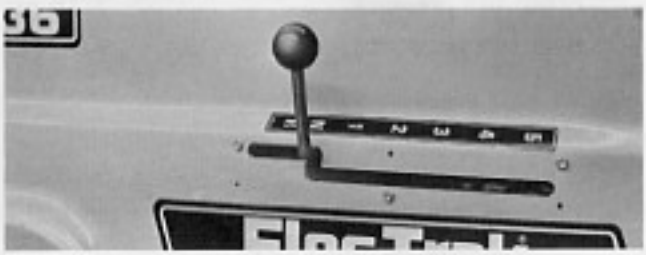

Fig. 3 Gear Selector

NOTE

Full depression of the clutch/brake pedal gives maximum braking and no transfer of power to the transmission. Partial pedal depression allows the rider to "creep" or to regain forward motion after stopping midway on an uphill climb. Avoid prolonged riding of the clutch/brake pedal during operation, as this will reduce range and belt/brake lining life.

TO STOP

1. Depress the clutch/brake pedal to stop the tractor. To stop the drive motor, turn the key switch to "Off".
2. Set the clutch/brake pedal in the locked position. (Set the parking brake).

TO REVERSE

1. Stop the tractor by fully depressing the clutch/brake pedal.
2. Move the range selector to the reverse, "R", position.
3. Slowly release the clutch/brake pedal.

CONTROLS AND FEATURES

TO START MOWER

1. After having started the rider drive motor, (otherwise the mower will not operate) set the mower deck lift handle (Fig. 4) in the bottom (free-floating position).
2. Lift up the mower switch lever momentarily to the "Start" position to start the mower motors. Release the switch lever and it will automatically return to the center "Run" position.

TO STOP MOWER

Push the mower switch down to the "Off" position.

ATTACHMENTS

Use and care information for the 36-inch rotary mower is found on pages 8 through 11 of this manual. Information for other ELEC-TRAK attachments or accessories is found in the specific instruction supplied with that equipment.

The rear pin hitch is provided for light hauling only. Heavy hauling or impact pulling should not be attempted with the ER8-36 rider.

> NOTE
> *Under no circumstances should automotive electrical equipment such as lights, horns, or any gounded frame device be attached to the ELEC-TRAK rider. The rider frame is not grounded and such devices could cause damage to the control system and a potential safety hazard if used.*

TRACTOR KEY SWITCH

The key switch "Off" position disconnects all electrical circuits with the exception of the charger. This circuit is active with the key in either the "Off" or "On" position. The clockwise "On" key position allows power to be applied to the drive and mower motors. The drive motor is started by shifting to neutral and the mower motors can then be started by moving the mower switch to "Start".

GEAR SELECTOR

The gear selector lever position determines one of five forward speeds and one reverse according to the pattern shown in Fig. 3.

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

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 before braking begins.

> NOTE
> *When the gears do not mesh immediately, slightly release the clutch/brake pedal and move the lever to the position desired. This will free the gears and allow shifting.*

MOWER LIFT

The mower lift is used to raise and lower the mid-mounted mower deck. Cutting height may be adjusted by this handle for short, quick, adjustments. For best mower ground following, the mower height should be adjusted by the mower height adjustment wheels (see Fig. 12). After adjusting the wheel height, lower the mower lift handle to the bottom position for free movement of the mower.

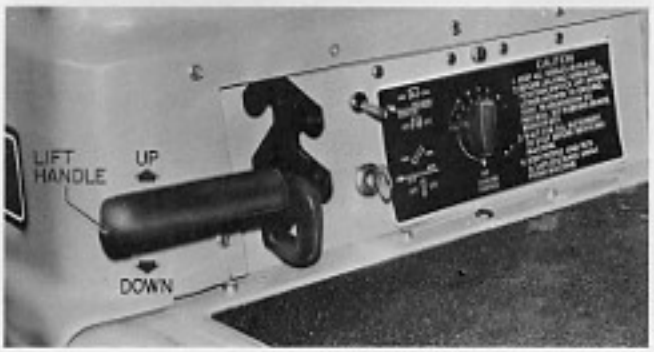

Fig. 4 Mower Deck Lift Handle

CONTROLS AND FEATURES

MOWER 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, the switch is held in the "Start" (up) position momentarily. When the switch handle is released, it automatically returns to the center "Run" position. To interrupt mower power, move the switch down to the "Off" position.

CLUTCH/BRAKE PEDAL

As its name implies, the clutch/brake pedal provides multiple functions. This permits smooth starting and "creeping" ability for maneuvering. As the pedal approaches full depression, the motor is fully disengaged and brake action begins. (See Fig. 5.)

> **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 rider motion occurs, fully release the pedal.

PARKING BRAKE

The parking brake lever is mounted next to the clutch/brake on the steering cowling. This brake operates in conjunction with the clutch/brake pedal. To engage the parking brake, it is necessary to fully depress the clutch/brake pedal and pull back parking brake lever. When foot pressure is released, the pedal should remain in its depressed position. See Fig. 6.

The parking brake is released by reapplying pressure on the clutch/brake pedal and pushing forward the parking brake lever.

SAFETY INTERLOCKS

Seat Switch

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

Return-to-Off

If power to the mower circuit is interrupted by the seat switch or turning the key switch to "Off", it cannot be restored unless the drive motor is

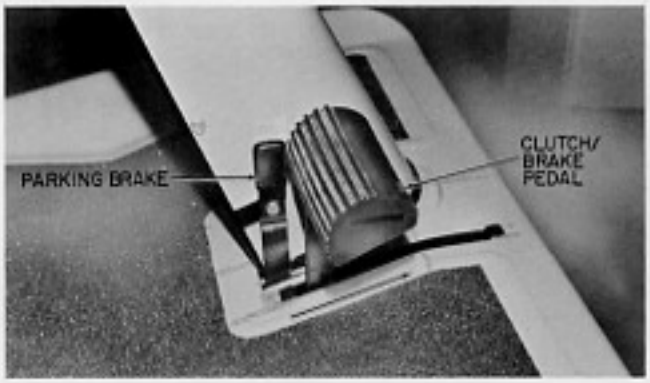

Fig. 5 Clutch/Brake Pedal

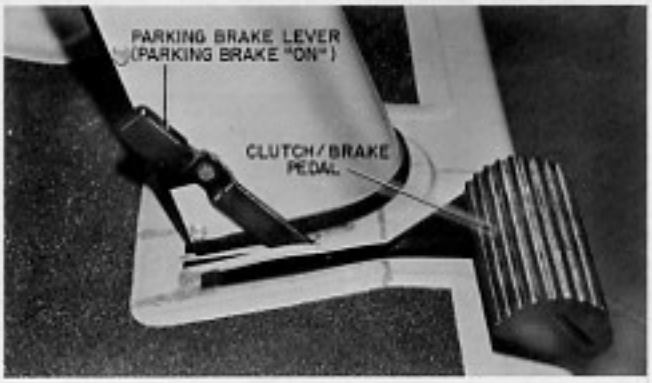

Fig. 6 Parking Brake

restarted and the mower switch turned to "Start" (fully up) and then "Run".

If power is interrupted to the drive motor, the transmission must be returned to neutral to restart.

> **NOTE**
> *These safety interlocks are used to ensure maximum safety for the operator of the ELEC-TRAK rider. They should never be altered and should always be kept in good working order.*

Electrical Protection

Circuit protective devices are used in this model ELEC-TRAK rider to protect components and wiring. These devices operate on both high current and high temperature to sense potentially severe conditions that could damage components or circuits, and they remove power to the circuit under such conditions.

Two types of protective devices are used – automatic reset circuit breakers and replaceable fuses. One automatic reset variety is internal in the drive motor. Should it "open" due to high motor temperature, after a short interval for cooling, the circuit breaker automatically recloses and operation can be restored by following the normal starting procedure. Each mower motor is also protected by its own automatic reset circuit breaker that also resets automatically after a short cooling period. If these circuit breakers interrupt mower operation frequently, refer to the "Mower Section" of this manual, pages 8 through 11.

Three automotive-type fuses are located inside the rear compartment on the seat support. (See Fig. 7.) Two 30-amp slow-blow fuses (one for each motor) protect the mower motors. The third 20 amp fuse is to protect the charging circuit. In addition, there is a protective fusible link mounted on the front panel to protect the heavy-duty wiring system against a heavy overloading.

Continued interruptions of power by any circuit breaker reopening is a signal to reduce the load, to search for a fault such as jamming, or possibly an electrical problem that requires dealer service.

> **NOTE**
> *Power pack charging cannot occur if the 20 amp fuse is blown.*

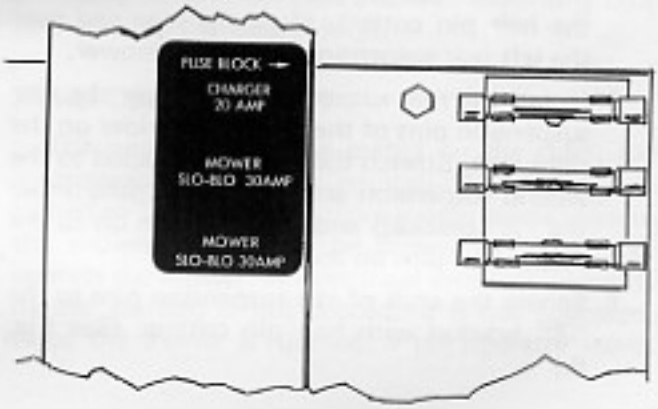

Fig. 7 Fuse Panel

MOWER USE AND CARE

WARNING
The mower comes with blades attached, and should not be electrically connected until fully mounted and blades checked for tightness.

Mower Attachment

To attach the mower, refer to Fig. 8 through 10 and take the following steps:

1. Drive the rider to a flat, level area and remove the key. Lower the mower lift handle (Fig. 4) to its lowest position.
2. Place the mower under the rider in its approximate mounted position. (See Fig. 2.)
3. Lift the "Z" bracket from the mower deck and place the short end over the right rear suspension pin of the rider (after removing the hair pin cotter). Place the long end over the left rear suspension pin of the mower.
4. Install the rear suspension arms over the rear suspension pins of the mower and rider on the right side. Stretch the spring connected to the second suspension arm (the spring goes under the "Z" bracket) and snap the arm on to the suspension pins on the left side.
5. Secure the ends of the suspension pins to the "Z" bracket with hair pin cotters. (See Fig. 8.)

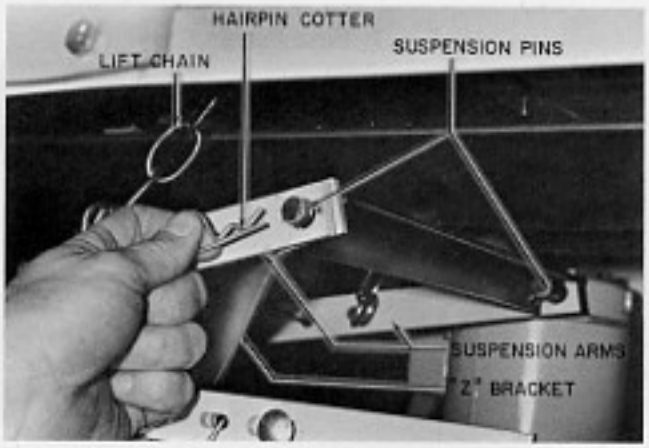

Fig. 8 Rear Suspension Assembly

6. Remove the remaining set of suspension arms from the mower deck. Attach the second set of suspension arms (adjustable lengths with a spring between them) on the front set of suspension pins the same way the rear ones were installed. (See Fig. 9.)
7. The front arm lengths can be used for adjusting the levelness of the mower in the mowing positions. These arms are factory set, and should not require further adjustment.
8. Lift the mower deck with the manual lift. Remove the mower helper spring attached to the seat support through the rear compartment (Fig. 10). Attach the lower end to the hole in the rear of the mower deck support directly in back of the rear suspension arm lift pins. Stretch the spring and refasten it to the

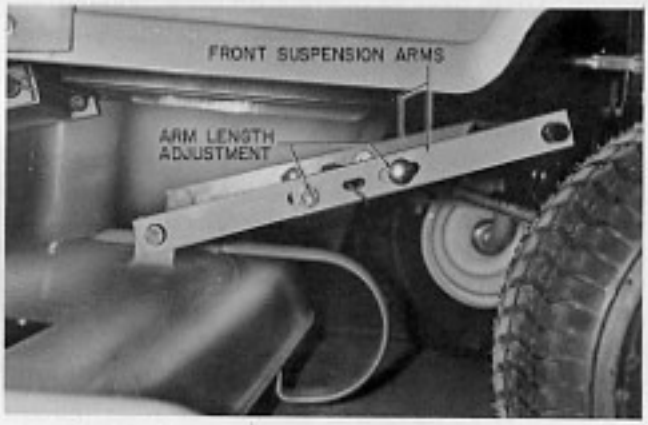

Fig. 9 Front Suspension Arm Assembly

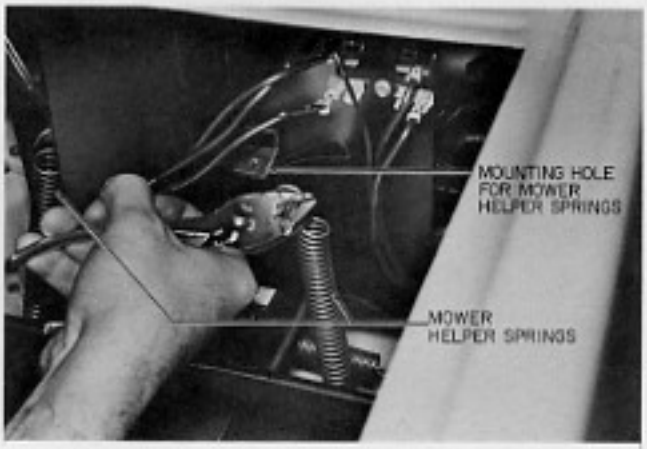

Fig. 10 Mower Helper Spring Installation

seat support it was first removed from. Install the second spring on the opposite side in the same way. If the batteries are in place, attach the upper end of the spring next to the seat support and stretch the spring from under the rider to fit into the mower deck support hole.

9. Join each mower-motor power-cord connector to its corresponding power cord exiting down from the bottom of the frame. (See Fig. 11.)

NOTE
The connector halves are keyed to fit together only one way to establish proper polarity.

WARNING
Always disconnect both pairs of motor power-cord connectors before handling the mower for any reason.

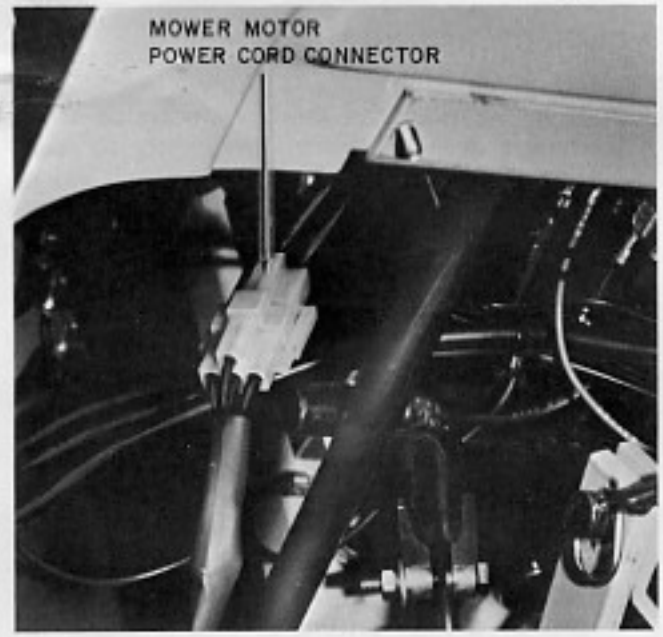

Fig. 11 Front Mower Suspension and Wiring

Adjustments

The rear mower wheels are the only part that requires adjustment. (See "Cutting" on page 10.) Make adjustments as follows (Fig. 12):

1. Remove the key and turn the mower "Off".
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 gives the lowest cutting height and the lowest hole gives the maximum lawn cutting height. The other adjustment holes allow intermediate cutting heights in 1/2-inch increments.

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

Mower Operation

The operator must be seated on the rider, the transmission shifted to neutral, the key switch turned to "On", and the drive motor started before the mower switch can be turned to "Start" to operate the mower. An electrical interlock prevents mower starting if this procedure is not followed. Once the mower is running, if the operator leaves

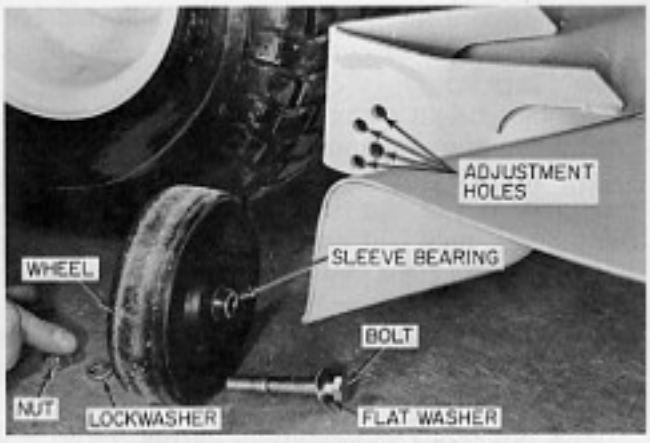

Fig. 12 Mower Wheel Height Adjustment

MOWER USE AND CARE

the seat or turns the key switch to "Off", another interlock operates which not only interrupts mower power, but also stops blade rotation quickly by a dynamic braking action. To restart, with the key "On", simply restart the drive motor and move the mower switch to "Start" (fully up) and then to "Run". For all normal use, the mower switch should be used to turn the mower off.

Gears 2 and 3 are the best speed ranges to use for average to heavy mowing, and gears 3 and 4 may be used for lighter duty, faster mowing. If the cut is not even and clean, a lower gear selector position or a higher cutting height should be used. The lower gears should be used on steep hillsides for greater control.

When mowing on steep hillsides, the travel should be up and down. Care should be exercised to avoid sudden starts and stops which may cause loss of control. The rider motor will offer some braking action provided the clutch/brake pedal is not depressed and the gear selector is left in gear. First gear offers the most motor braking.

Cutting

Always mow with sharp blades. The blades should be sharpened and balanced seasonally if subjected to average use, or whenever cutting quality deteriorates. Always disconnect the motor power cords before servicing or adjusting the mower. After each sharpening, if mower vibration is noticeable, the blades should be checked for balance. Unbalanced blades will shorten the life of the mower motor bearings.

For good appearance of the mowed lawn, it is very important to have the mower adjusted correctly for height of cut. (See section on "Adjustment", page 9.)

The best height of cut should be determined by positioning the rear mower wheels in the second lowest adjusting holes for the first few passes. If the grass is not cut short enough, use of the third-lowest hole will give a 1/2-inch shorter cut, and so forth. Care must be used not to scalp uneven parts of the lawn by cutting too close.

Experience in operating the equipment under various conditions is very important in obtaining maximum efficiency and the best appearance. After a few hours of operation, mower motor and blade loading can be easily determined by the change in sound produced. If the turf is very soft or the grass is very heavy the blade noise and mower vibration may increase signaling the operator of overloading. In this case, it is suggested that the lift lever be raised until the weight of the mower is first felt and then to lock the lift in the next higher position. After mowing with the mower in this position, if it is desired to cut the grass shorter, another pass with the mower fully lowered should be made. If the grass is not too long, shifting into a lower gear may eliminate the need for raising the mower.

On average lawns that have merely grown too long it may be necessary to mow on two passes in the same manner as described above to prevent clogging of the chute. This would also be the method used to mow very high grass or weeds, but the initial pass should be made with the mower in its highest cutting position.

When sections of rough terrain or an area which may contain small stones is encountered, the operator should constantly adjust the lift lever to the conditions to prevent damage to the equipment or injury to the operator or bystanders.

If the rider appears to groove the lawn or gives a bumpy ride, check the tire pressure. The pressure should be 12 psi rear, and 15 psi front.

MOWER OPERATING TIPS

- 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 must be removed to facilitate effective cleaning. (See page 12.)

> **CAUTION**
> *The use of water can damage bearings in motors.*

- 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.

- Sharpen and balance blades as required, but at least seasonally.
- Oil mower wheel axles and lift pivot points frequently with a 30 weight machine oil as indicated in the "Service" section of this manual.
- 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. 13.
- 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.
- Avoid mowing wet grass as this can cause chute and blade clogging which reduces the cutting effectiveness and overloads the motors.
- 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.

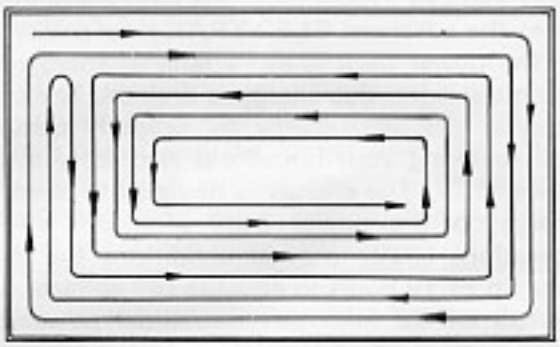

Fig. 13 Mowing Pattern

POWER PACK CARE AND CHARGING

WARNING
Battery terminal covers are for your protection and should not be removed except for service.

Batteries are one of man's oldest and most reliable sources of power. By following a few basic rules you can expect excellent service and long life from the advanced ELEC-TRAK rider power pack.

The power pack is like a tank of energy. When using the rider, this energy is drained. The charger replaces the used energy by properly converting and metering your household electricity into the power pack. The charger is designed to restore full charge to the power pack after one cycle of operation. Under normal conditions the charger runs up to 19 hours to equalize cell voltages (when started on the "A" position. Older power packs require less charging time).

The charger runs independently of the key switch. It is suggested that the key be removed to prevent unauthorized use of the rider.

CHARGER STARTING POSITIONS (See Fig. 14)

The amount of charging the power pack needs is dependent on:

1. Accumulative number of hours of operation since the last charge.
2. Temperature of tractor batteries.
3. Age of the batteries.

The charger dial starting positions A through J vary the charging period from very long at A to about half as long at J with numerous starting positions in between. 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 knob should be started at the next letter below that of the previous charge. The charger setting should not be varied more than one letter at a time, and two or more charges should be made before determining the need to use a new knob setting.

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 the temperature decreases, there is a need to increase the charge time. For example, a power pack discharged to the same level will require as much as 50 percent more charge time for full recovery at 30F than at 70F. In very cold weather the "A" position can usually be used for all charging.

In any event, it is better to overcharge (charge too long) than to undercharge as long as there is not a high loss of water during charging. See "Power Pack Watering" instructions on page 13.

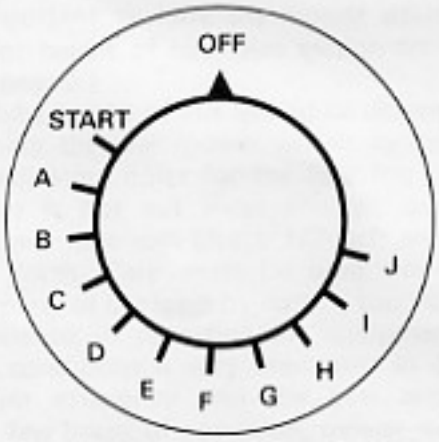

Fig. 14 Charger Starting Positions

CHARGING

A deeply discharged power pack requires the charger to draw approximately 7-amperes from the 115-volt line 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.

To start the charging operation, open the rear cover and plug the charger cord into any 3-wire, grounded household receptacle and turn the charger knob to the "Start" position determined as previously outlined (Fig. 14). (New power packs go through a seasoning period and must be charged longer.)

When the power pack is fully charged, the charger shuts off automatically. It is advisable to leave the plug plugged in after completion of the charging cycle. However, the rider charger may be turned off and unplugged at any time during or after the charging cycle if the rider is needed.

The charger line cord is equipped with a standard 3-prong plug which grounds the charger through the home electrical system. When only a 2-hole receptacle is available, an adapter must be used between the plug and receptacle with the ground lead permanently fastened to the ground screw on the outlet or other tested ground on your electrical system.

In older homes equipped with original electrical wiring, the receptacle cover plate screw may not provide a ground connection when used with an adapter plug. If there is any doubt concerning the ground of your receptacle, consult your dealer or a qualified electrician.

NOTE
The power pack should not be charged in an area where the temperature is above 110F to prevent overheating and possible damage to the batteries.

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 ELEC-TRAK 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.)

WARNING
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 maintained 1/4 to 3/8 inch above the plates and never above the indicator ring. Overfilling can result in dilution of electrolyte, which reduces the capacity and life of the power pack. Overfilling can also cause corrosion where spillage of electrolyte occurs. (Your ELEC-TRAK dealer has a self-metering water filler jug available at a low cost.)

Under normal conditions it only will be necessary to check the electrolyte approximately once per month. Use of the rider in higher temperature locations or under very heavy use may require more frequent checks of the level. Also, after several years of use, it may be necessary to add water more often.

WARNING
The charging process evolves small amounts of hydrogen gas; therefore, normal precautions like those for gasoline refueling should be used whenever the ELEC-TRAK rider is being charged. (No sparks or open flames near the rider.) This gas concentration will not occur if there is free air circulation in the area where the rider is stored or if the area is large so the concentration is reduced (i.e., a garage).

COLD WEATHER POWER PACK CARE

The efficiency of a power pack is somewhat less at lower temperatures. In order to obtain optimum performance of your ELEC-TRAK rider during the winter months, and to properly care for the power pack when not in use, the following recommendations should be followed:

POWER PACK CARE AND CHARGING

Rider in Storage

1. Fully charge power pack by setting charger knob to appropriate starting position as explained on page 12, and letting charger operate until it shuts off.
2. Add water to each cell of the power pack to the specified level as described in the previous section. It is important for best power pack care to be sure (a) that the battery plates which may be seen through the filling holes are covered by the electrolyte level to a depth of 1/4 to 3/8 inch before charging, and (b) that the level is brought to the bottom of the indicator ring after charging. In this way, overfilling is prevented but sufficient water is assured.
3. The rider may be stored in the cold, provided the power pack is charged. A discharged power pack can freeze in cold temperature unless recharged immediately after use. The following table illustrates the relationship between amount of charge and freezing temperature of the electrolyte.

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

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

4. If stored in a warm area above 40F, the rider power pack electrolyte should be checked with a hydrometer once a month. Recharge the power pack if the electrolyte specific gravity is below 1.200.

MAKE IT A HABIT!
AFTER USE
REMOVE KEY • PLUG IN • START CHARGER

SERVICE AND MAINTENANCE

The ELEC-TRAK rider reduces your lubrication requirements tremendously since the electric motors are permanently lubricated.

Several high-friction points do require periodic lubrication to prolong life and give maximum operating satisfaction.

AFTER EACH 20 OPERATING HOURS — OR EVERY 6 MONTHS

Twice a year or every 20 operating hours the front spindles and rear wheel bearings should be greased with a hand grease gun using a No. 2 multipurpose lithium grease (See Fig. 15). Pump the gun until dirt and old grease are flushed out and wipe all surfaces clean.

The underside of the motor plate should be greased liberally at the three corners not secured to the rider frame.

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

1. Clutch/brake pedal pivot pin and linkage connections.
2. Mower mounting pins.
3. Lift assembly pivot points.
4. Rear axle chain.
5. Front axle pivot pin.
6. Lift bars.
7. Nylon spindle bearings on front wheels.

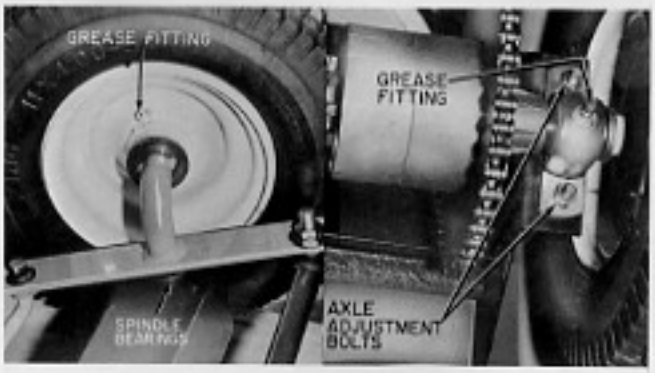

Fig. 15 Grease Fittings

Prevent dirt and dust accumulation, by wiping away all excess oil.

These lubrication intervals are meant to be a guide only. If the rider is subjected to abnormal environmental conditions or greater-than-average use, the frequency of lubrication as well as other preventive maintenance measures should be adjusted accordingly.

VISUAL INSPECTION

Periodic inspection of the rider 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 rider plus regular cleaning and polishing of exterior surfaces will give greater satisfaction in owning and operating the ELEC-TRAK rider and will enhance resale or trade-in value.

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

POWER PACK

In addition to power pack charging and watering as outlined, other services may be performed to give more desirable service.

Check the electrolyte level in the power pack monthly. Add water only if necessary. To protect your warranty, no electrolyte should be added except by your dealer.

City tap water or water of a low to average mineral content is acceptable for refilling. To prevent contamination of water, use the recommended ELEC-TRAK tractor water-filling jug or clean glass or plastic containers with a funnel.

It pays to keep the power pack top clean. Removal of accumulations of dirt, grass clippings, and so forth will assure optimum electrical system performance. An occasional wiping with wet paper toweling is sufficient.

CAUTION

For personal and equipment protection, always unplug the charger when cleaning power pack surfaces.

DRIVE ASSEMBLY

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.

A replacement drive belt is available from your authorized ELEC-TRAK dealer. To change the belt, just 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 the belt from the pulley. Then, slide the belt under the belt-keeper and off the second pulley. The new belt is installed by reversing the removal procedure. See Fig. 16.

ELECTRIC CIRCUITRY

The bulk of the ELEC-TRAK rider electric circuitry is used for power transmission and switching and is located primarily in the control cabinet. Service in this area should be performed by your dealer only.

TIRES AND WHEELS

Proper tire inflation pressure is an important factor in determining tire life. Pressures should be checked and corrected, if necessary, on a monthly basis according to the following table.

Tire Inflation

Front . . . . . .15 psi

Rear . . . . . .12 psi

Pressure measurement should be made with a low-pressure gage which can be purchased from your dealer.

Stumps, holes, and sharp objects should be avoided, and any cuts occurring in the tires should be repaired immediately or tire life will be reduced.

WHEEL REMOVAL (See Fig. 17)

The wheels are secured to the rear axle and front spindles by snap rings. For removal and replacement, a special pair of "snap ring pliers" should be used. 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 slotted axle. Apply grease to the axle before replacing the wheel.

BRAKE AND PARKING BRAKE

A fully depressed brake pedal or an engaged parking brake should prevent the tractor from rolling on average hillsides. If the brake does not

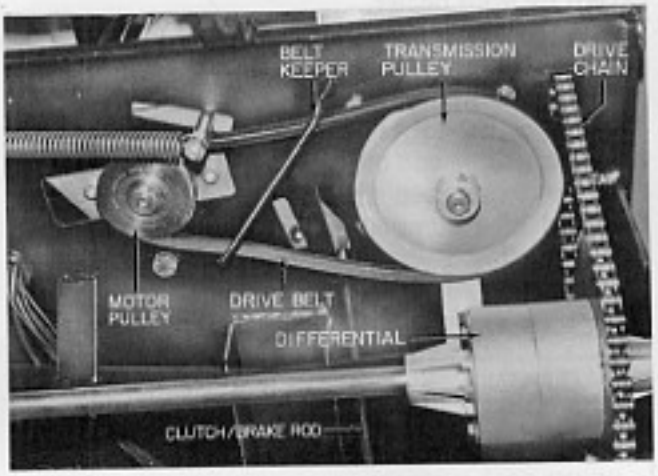

Fig. 16 Drive Belt

Fig. 17 Wheel Removal

perform satisfactorily, the following adjustment may be made: (See Fig. 18).

Brake Adjustment

Adjust the brake by tightening the nut (See Fig. 18) and locking it in place with the second nut. Travel of the clutch/brake pedal is adjusted by a clevis below the brake adjustment.

STEERING ASSEMBLY

The front axle and steering system of the ELEC-TRAK rider are extremely rugged. Toe-in, the steering gear, and the linkage are carefully adjusted at the factory and should require no additional adjustments in normal service, barring improper operation. If any service becomes necessary, contact your dealer.

ADJUSTMENT OF DRIVE CHAIN

Chain adjustment is accomplished by loosening the four bolts holding the rear wheel bearings in place and sliding the axle assembly forward or backward. Retighten the four bolts when the proper chain tightness is achieved. (See Fig. 15.) Make sure the chain is squarely aligned on each sprocket.

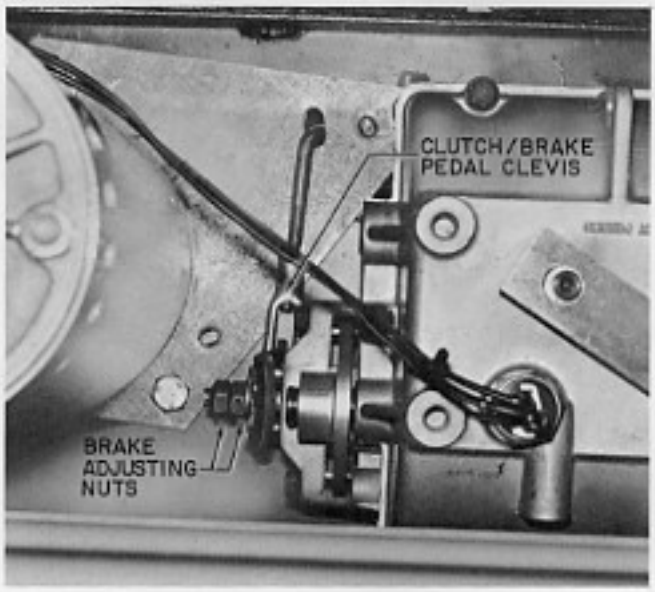

Fig. 18 Brake Adjustment

BODY REMOVAL

1. Remove the rear compartment cover, reach forward under the seat, and unbolt the two front bolts (about 2 inches back from the seat front) holding the seat to the frame. Remove the seat.
2. Remove the two bolts under the seat holding the body to the seat frame. Remove the six bolts along the sides and three at the rear of the body (holding the frame to body). Remove the seven bolts around the front control panel.
3. Remove the shift rod and clevis at the transmission lever by removing the cotter pin from the clevis pin, the pin from the lever, and the shift rod from the body.
4. Remove the body.

STORAGE

Your tractor should be covered or under a roof in outside storage in snowy or rainy weather to give better protection and maintain performance and life of the equipment.

Seasonal storage requires a minimum of preparation. The steps to be performed are as follows:

1. Wherever possible, store the rider in a cool, dry, weather-protected area or cover with a storage cover.
2. Clean the power pack covers if necessary as outlined on page 15.
3. Plug the charger into an approved receptacle and start charger operation. Insure proper water level after the first day (24 hours). (See page 12.)
4. Lubricate the rider and wipe oil on any parts that may be affected by rust.
5. For extended storage, check the specific gravity of the electrolyte monthly, and recycle the charger when necessary.

The charge retention (without using additional electricity for recharging) of the power pack can be extended considerably if stored in a very cool place. Lower temperature slows the self-discharge. At temperatures below 40F, virtually no self-discharge occurs.

SERVICE AND MAINTENANCE

NOTE
At temperatures below 32F the full charge state must be maintained to prevent cell electrolyte from freezing which may result in permanent damage to the power pack.

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 units
Transaxle	5 speeds forward & 1 Reverse

PERIODIC SERVICE CHART

Service	Monthly	Every 20 Operating Hrs.
Check power pack water level	X	
Check tire pressures	X	
Check drive belt tension	X	
Clean power pack top surfaces if necessary		X
Check fasteners and connectors for tightness		X
Grease wheels, spindles and steering assembly		X
Oil exposed moving parts – lift, clutch/brake pedal, hinges, etc.		X
Check battery posts for corrosion		X

For specific details on servicing, consult your ELEC-TRAK tractor dealer.

SET-UP INSTRUCTIONS, ER8-36 RIDER

1. Unpack the rider and mower and lay all the skin-pack parts out. Remove the rear compartment cover. Drop the mower lift handle to its lowest position.

2. Remove the hair pin cotter and the rear suspension arms with the spring from the top of the mower deck. See Fig. 19. Attach the rear suspension arms to the lift chains with the lap-link fastened to the arms (Fig. 20). Fasten the chain and arms so that the spring connecting the two arms is at the rear of the chains when fastened.

3. Place the mower under the rider in its approximate mounted position.

4. Lift the "Z" bracket from the mower deck and place the short end over the right rear suspension pin of the tractor (after removing hair pin cotter). Place the long end over the left rear suspension pin of the mower. (See Fig. 21.)

5. Install the rear suspension arms over the rear suspension pins of the mower and rider on the right side. Stretch the spring connected to the second suspension arm (the spring goes under the "Z" bracket) and snap the arm on to the suspension pins on the left side.

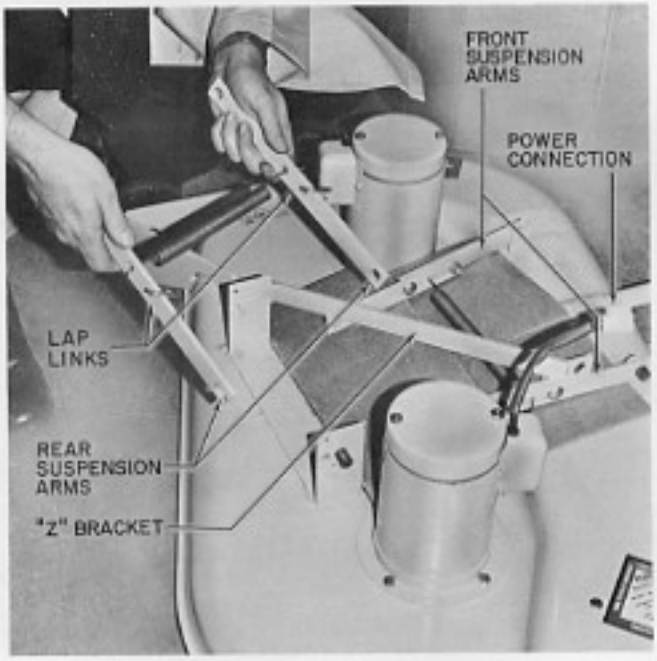

Fig. 19 Mower Unpacking

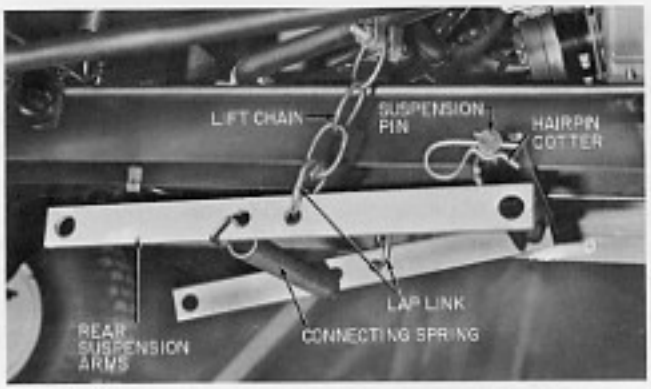

Fig. 20 Rear Suspension Arm Installation

6. Secure the ends of the suspension pins to the "Z" bracket with hair pin cotters. (See Fig. 8.)

7. Remove the remaining set of suspension arms from the mower deck.

8. Attach the second set of suspension arms (adjustable lengths with a spring between them) on the front set of suspension pins the same way the rear ones were installed. (See Fig. 9.)

9. Lift the mower deck with the manual lift. Remove the mower helper spring attached to the seat support through the rear compartment (Fig. 10). Attach the lower end to the hole in the rear of the mower deck support directly in back of the rear suspension arm lift pins. Stretch the spring and refasten it to the seat support it was first removed from. Install the second spring on the opposite side in the same way.

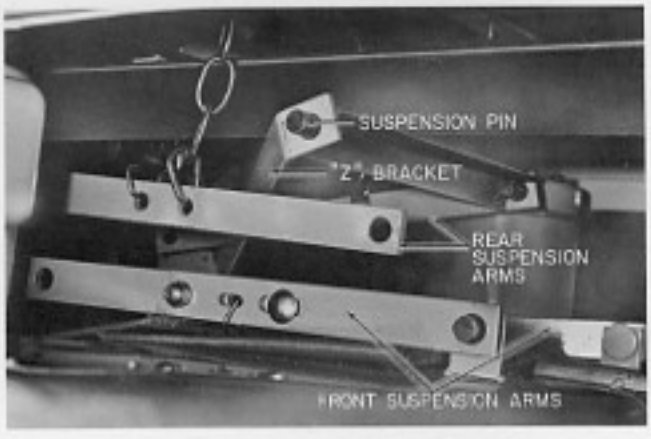

Fig. 21 "Z" Bracket Assembly

10. Join each mower-motor power-cord connector to its corresponding power cord exiting down from the bottom of the frame. (See Fig. 11.)

11. Mount the seat on the two rubber spacers in the seat support frame. This is done by taking one 5/16 x 1-7/8 inch bolt, placing a 5/16 inch lockwasher, plain washer, and metal sleeve over it, sliding it through the rubber spacer, adding two additional 5/16 inch washers, and screwing the bolt into the matching hole in the bottom of the seat front. (See Fig. 22.)

12. The same procedure is followed for the second bolt for the remaining spacer and matching seat hole.

13. Remove the battery hold-down clamp from the battery compartment.

14. Align the battery tray in the bottom of the battery compartment so that the drain hole in the tray aligns with the hole in the compartment bottom.

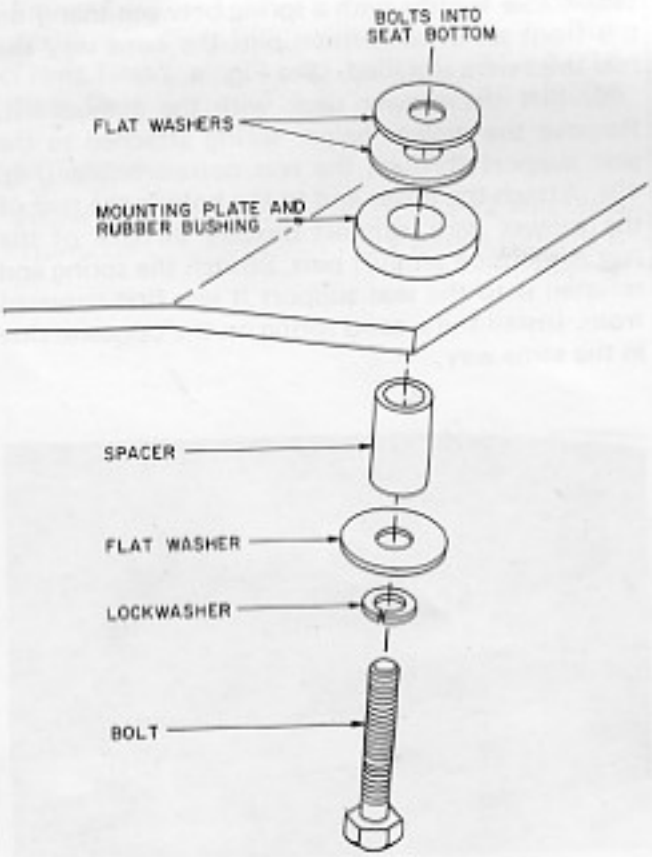

Fig. 22 Seat Mounting

15. Place the first battery in the center of the compartment with the positive terminal forward as illustrated in Fig. 23.

WARNING
Keep loose battery cables from shorting to other connections or the rider.

16. Attach a connecting battery cable to the positive battery terminal of the first battery. Attach the riders' negative cable (laying in the compartment) on the remaining terminal and slide the battery to the left.

17. Place the second battery in the center of the compartment with the positive terminal forward. Attach the second battery connecting cable to its negative post. Attach the riders' positive cable (laying in the compartment) to its remaining terminal. Slide this battery to the right.

18. Place the remaining battery in the compartment in the same fashion.

19. Place the battery clamp over the batteries with the two prongs up and over the battery hold-downs (one against the body on each side). Secure each side of the battery clamp on the hold-downs with a 1/4-inch spring lockwasher and 1/4-20 nut. Tighten securely.

20. Connect the connecting cable from the battery on the left to its negative terminal. Connect the connecting cable from the battery on the right to its positive terminal. (See Fig. 24.)

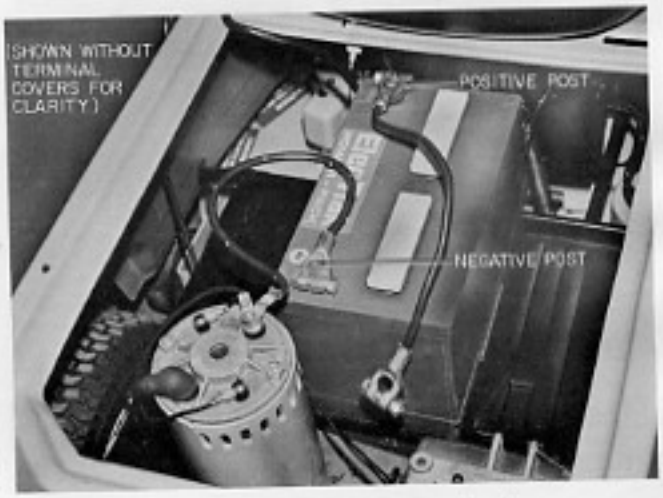

Fig. 23 First Battery Installation

21. Make sure all connections are tight. Cover the battery terminals and parts with a light coat of grease (AP31).

22. Arrange the connecting cables as shown in Fig. 24. Place the six battery covers over the terminal connections as shown in Fig. 25.

23. Wrap the charger cord around the two upright springs of the battery clamp to keep it from falling out of the compartment. (See Fig. 25)

24. Remove the tie through the top hole of the steering shaft. Pull the shaft up and rotate it if necessary to ensure that the lower gears mesh. In some cases it will be necessary to place a block under the bottom of this shaft to prevent its dropping down while installing the steering wheel.

25. Drop a 5/8 inch washer over the top of the steering shaft and then slide the steering wheel extension shaft with the end with the hole the greatest distance from the shaft end over the steering shaft so that the roll pin holes align. Next, drive a 1/4 x 1 inch roll pin into the steering wheel extension shaft into and through the steering shaft. Place the steering wheel on the shaft, being careful to align the holes in the wheel and shaft. Drive the remaining 1/4 x 2 1/4 inch roll pin through the wheel and shaft.

26. Perform a check of the rider and prepare for delivery, using the following Dealer Set-Up and Delivery Check List.

27. After completion of the rider check-out, replace the rear battery compartment cover and check complete rider operation functions prior to delivery.

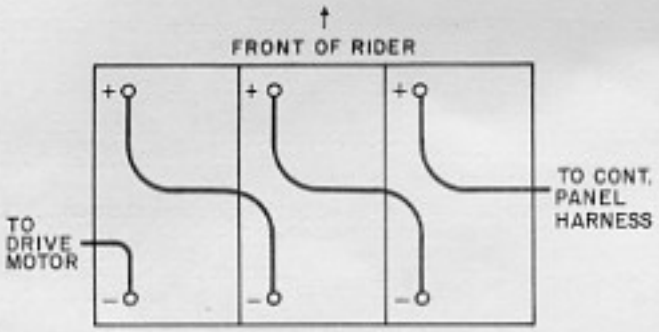

Fig. 24 Battery Wiring

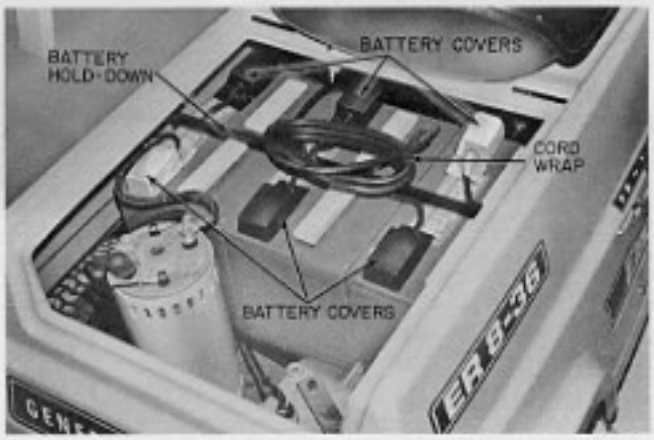

Fig. 25 Battery Cover Installation and Cord Wrapped on Hold-Down

SET-UP

DEALER SET-UP AND DELIVERY CHECK LIST

1. Check wiring connections for tightness before installation of batteries.
   - A. Transmission switch ☐
   - B. Control Panel ☐
   - C. Mower Motor Connectors ☐
   - D. Drive Motor ☐
   - E. Fuse Board ☐

2. Power Pack and Battery Installation.
   - A. Tray installed ☐
   - B. Batteries cables tightly connected ☐
   - C. Protective grease on battery terminals ☐
   - D. Electrolyte level 1/4-3/4 inch above plates ☐
   - E. Covers and clamps installed ☐

3. Speed Control.
   Check, forward and reverse for the proper number of speeds as indicated in the Use and Care Manual Specification Chart. ☐

4. Seat switch safety shutoff — Restart the drive motor and mower as outlined on page 9. ☐

5. Check the cutting direction of the mower blades. ☐

6. Key shutoff (Same test as seat switch). ☐

7. Start the charger and check for an increase voltage on batteries with volt meter. ☐

8. Check the belt alignment and tension. ☐

9. Check the drive chain tension and alignment. ☐

10. Check foot and parking brake operation. ☐

11. Adjust the tire pressure to: 15 lbs front ☐ 12 lbs rear ☐

12. Grease the spindles, and all points, page 15. ☐

13. Oil points specified, page 15. ☐

14. Charge the batteries upon receipt and before delivery. ☐

15. Complete the Delivery Cards and mail Copy 1. ☐

TROUBLESHOOTING CHECK LIST

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 the other motor on the fuse panel 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-VAC* outlet. • 115-VAC* outlet inoperative due to open house-hold fuse or circuit breaker. • Failure to start charger at proper dial setting.

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

(2) If the circuit breaker on the motor goes out, both 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.

*Riders not equipped with a 115-volt system will have an additional decal on the deck behind the drivers' seat specifying the design voltage.

WARRANTY
ELEC-TRAK RIDING LAWN MOWER

General Electric Company U.S.A. warrants to the original purchaser that it will repair or replace without charge, f.o.b. factory, including cost of parts and labor for replacement, any part of the ELEC-TRAK riding lawn mower with which this warranty is furnished which proves to be defective in material or workmanship within 12 months in ordinary home use (3 months if in commercial or institutional use) following the date of sale. This warranty does not apply to the power pack, which is separately warranted and offers additional replacement coverage. These warranties do not apply to any repair or replacement made necessary by special user applications not recommended by General Electric or improper use or maintenance, or by abuse or accidental damage.

The foregoing warranty states the entire obligation of General Electric Company U.S.A. with respect to said products and is in lieu of any and all other warranties, express or implied. NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY. IN NO EVENT WILL THE COMPANY BE LIABLE FOR INDIRECT OR CONSEQUENTIAL DAMAGES.

WARRANTY
ER8-36 RIDER POWER PACK

General Electric Company U.S.A. warrants to the original purchaser that it will replace without charge, f.o.b. factory, any individual ELEC-TRAK rider power pack unit with which this warranty is furnished if it fails because of defects in material or workmanship within 12 months in ordinary home use (six months in commercial or institutional use) following the date of sale. After 12 months in home use, but within 36 months following the date of such sale a power pack will be replaced at a pro rata service charge equal to 1/36th of the list price for replacement units multiplied by the number of months which have elapsed from the date of original purchase to the date of failure. Labor and service call charges during the first 12 months in ordinary home use (3 months if in commercial or institutional use), will be covered as stated in the rider warranty. Service calls and labor after the first 12 months are the responsibility of the owner. This warranty does not apply to any replacement made necessary by improper use or maintenance, or by abuse or accidental damage. A replacement unit will carry the above 12 month 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 foregoing warranty states the entire obligation of General Electric Company U.S.A. with respect to said products and is in lieu of any and all other warranties, express or implied. NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY. IN NO EVENT WILL THE COMPANY BE LIABLE FOR INDIRECT OR CONSEQUENTIAL DAMAGES.

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GENERAL ELECTRIC®