INSTRUCTIONS

E8M, E8HM AND E10M SET-UP

ASSEMBLY

- 1. Cut the banding straps and remove the upper portions of the carton. Cut the sides of the bottom tray so the tray lays flat.
- 2. Remove the wheel-tire assemblies and loose boxes from the carton. Also remove loose packing material in the area of the front axle. Inspect the contents of all packages.
 - 3. Jack up the rear of the tractor.
- 4. Remove the mower deck and rear cardboard support from below the tractor frame.

NOTE: The support can be partially disassembled in place for ease of removal.

5. Grease the rear axle shaft to prevent rust formation, and install the rear wheels with the extended portions of the wheels' centers toward the tractor. Align the cross-holes of the wheel centers with the corresponding holes in the axle. Insert clevis pins in the holes and secure with cotter pins. (See Figure 1.)

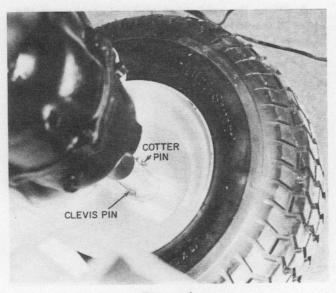


Figure 1

6. Install the woodruff key and steering arm (boss extending downward) on the lower end of the steering shaft below the frame so the boss is flush with the end of the shaft. Secure with the square-head setscrew. (See Figure 2.)

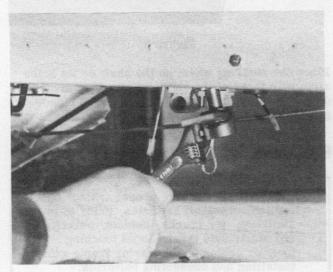


Figure 2

- 7. Jack up the front of the tractor, partially disassemble and remove the cardboard support, and install the front wheels. Secure each wheel to its spindle with a 3/4-inch narrow washer and Tru-Arc snap ring. Use a Tru-Arc tool for snapring installation. Grease the front axle/spindle assembly thoroughly.
- 8. Install the short tie rod between the steering arm tab on the lower end of the steering assembly and the Pitman arm which is attached to the right-front-wheel spindle. Install so the threaded studs of the ball joints extend down through the arm tabs. Secure with lockwashers and nuts. (See Figure 3.)
- 9. Install the long tie rod so the threaded studs of the ball joints extend up through the spindle tabs. Secure with lockwashers and nuts. (See Figure 3.)
- 10. Place the plastic sleeve over the upper end of the steering shaft with its slotted end upward and aligned with the holes in the steering shaft.

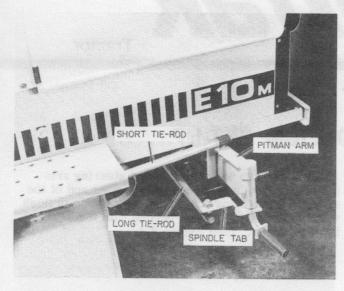


Figure 3

Place the steering wheel on the shaft so its holes align with those of the shaft. Drive the spring dowel pin in the aligned holes. Snap the monogram cap into the center of the steering wheel.

BATTERY INSTALLATION

CAUTION: To insure proper tractor operation, check all batteries, prior to installation, for cracks, defects, polarity and electrolyte level. Avoid touching tools or cables to the tractor frame while installing and connecting batteries.

Model E8M And E8HM

USE THREE 12-VOLT BATTERIES IN THE E8M
USE SIX 12-VOLT BATTERIES IN THE E8HM

Forward Compartment-Both Models

- 1. Remove all loose parts from the forward battery compartment. Turn the key switch counter-clockwise to the "Off" position.
- 2. Place the plastic tray in the bottom of the forward battery compartment so its drain hole lines up with the drain hole in the floor of the compartment.
- 3. Unfold one of the poly bags and place it in the tray so the bag's bottom seam runs from front to rear. Flatten the pockets that form at the seam ends so the bottom of the bag conforms to the tray.

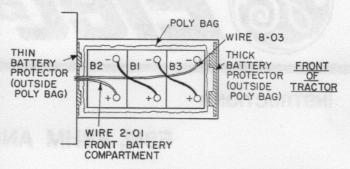


Figure 4. E8M and E8HM Front Compartment

- 4. Carefully set the batteries inside the bag as shown in Figure 4 observing polarity markings. Make sure the sides of the bag remain above the top surface of the batteries in equal amounts. (It may help to tape the upper edges of the bag to the tractor sides temporarily to permit easy insertion of the batteries.)
- 5. Place a thin vacuum-formed battery protector between the poly bag and the rear wall of the compartment and a thick protector in similar fashion at the front of the compartment. Position the protectors so their corrugations will face the battery walls. (See Figure 4.)
- 6. Connect the battery cables in accordance with Figure 4. Observe clamp polarity markings. Coat the terminals after connections are made with a thin film of Battery Terminal Protective Grease, AP31. Make sure all surfaces are coated!
- 7. Place the plastic cover over the batteries, but inside the top edges of the bag, making sure the battery cables go through the end slots of the cover, and that the center cables fit into the center raised portion of the cover. (See Figure 5.)
- 8. Place the hold-down angle clamps along the sides of the battery cover, outside the top edges of the bag so the bag is between the cover and the

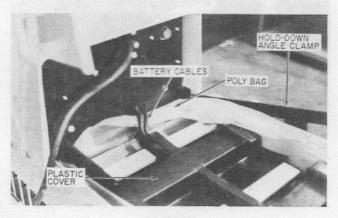


Figure 5

clamps. (See Figure 5.) Notice there is a right and left clamp.

NOTE: Engage the rear of each clamp in the corresponding slot in the panel in the rear of the compartment, and then lower the clamp into position.

- 9. Secure the front of each clamp to its corresponding threaded stud with a lockwasher and nut.
- 10. With Model E8M, check that wires numbered 10 and 12 are connected to the seat switch which is mounted on the cross-bar over the rear compartment.
- 11. With Model E8M, charge the batteries initially as instructed in the Use and Care Manual.

Rear Compartment--Model E8HM Only

- Remove all loose parts from the rear battery compartment.
- 2. Adjust the wiring entering the rear compartment so that it will not interfere with battery installation or be inaccessible when needed.
- 3. Temporarily remove the cross-bar which is mounted over the rear battery compartment. Swing the compartment cover completely open and protect the paint with cardboard where the rear edge of the cover touches the outside of the rear compartment.
- 4. Place the battery tray in the bottom of the rear compartment so that its drain hole lines up with the drain hole in the floor of the compartment.
- 5. Unfold the other poly bag and place it in the tray so the bag's bottom seam runs from front to rear. Flatten the pockets that form at the seam ends so the bottom of the bag conforms to the tray.
 - 6. Carefully set the batteries in the bag as shown in Figure 6 so that the sides of the bag remain above the top surface of the batteries in equal amounts and all wires are accessible. (It may help to tape the upper edges of the bag to the tractor sides temporarily to permit easy insertion of the batteries.)
 - 7. Place a thin vacuum-formed battery protector between the poly bag and the compartment wall at each end of the compartment. Position the protectors so their corrugations will face the battery walls. See Figure 6.
 - 8. Connect the battery cables and wires in accordance with Figure 6. Coat the terminals after

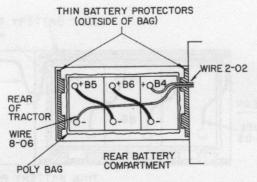


Figure 6. E8HM Rear Compartment

connections are made with a thin film of Battery Terminal Protective Grease AP31. Make sure all surfaces are coated.

- 9. Place the plastic cover over the batteries, but inside the top edges of the bag making sure the battery cables go through the end slots of the cover, similar to Figure 5.
- 10. Remount the cross-bar over the rear compartment so the seat switch is towards the back of the tractor. Make sure the wires numbered 10 and 12 are connected to the seat switch. Test the switch action by starting the drive motors, then releasing the switch. The motor should stop when the switch is released.
- 11. Attach a threaded "J-bolt" in the end hole of each hold-down angle clamp. Secure by installing a lockwasher and nut on the first few threads of each bolt.
- 12. Place the hold-down angle clamps along the sides of the battery cover, outside the top edges of the bag so the bag is between the cover and the clamps. Notice there is a left and right clamp. Installation may be easier if the filler caps of battery B4 are removed temporarily.

NOTE: Engage the front of each clamp in the corresponding slot in the front of the compartment and then lower the clamp into position.

13. Charge the batteries initially as instructed in the Use and Care Manual.

Model E10M

USE SIX 6-VOLT BATTERIES IN THE E10M

Forward Compartment

1. Remove all loose parts from the forward battery compartment. Turn the key switch counter-clockwise to the "Off" position.

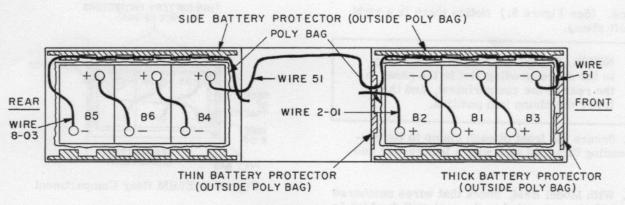


Figure 7. E10M Battery Wiring

- 2. Place one of the plastic trays in the bottom of the forward battery compartment so its drain hole lines up with the drain hole in the floor of the compartment.
- 3. Unfold one of the poly bags and place it in the tray so the bag's bottom seam runs from front to rear. Flatten the pockets that form at the seam ends so the bottom of the bag conforms to the tray.
- 4. Carefully set three batteries in the bag as shown in Figure 7 observing polarity markings. Make sure the sides of the bag remain above the top surface of the batteries in equal amounts. (It may help to tape the upper edges of the bag to the tractor sides temporarily to permit easy insertion of the batteries.)
- 5. Place one of the long, vacuum-formed, battery protectors along each side of the poly bag (outside) so the corrugations will face the battery walls. (See Figure 7.)
- 6. Place the short sections of battery protectors in similar fashion at the ends of the compartment with the thicker one at the front as shown in Figure 7.
- 7. Connect the battery cables in accordance with Figure 7. Observe clamp polarity markings. Coat the terminals, after connections are made, with a thin film of Battery Terminal Protective Grease, AP31. Make sure all surfaces are coated!
- 8. Place the plastic cover over the batteries, but inside the top edges of the bag, making sure the battery cables go through the end slots of the cover, similar to Figure 5.
- 9. Place the longer pair of hold-down angle clamps along the sides of the battery cover outside the top edges of the bag so the bag is between the cover and the clamps. See Figure 5. Notice there is a left and right clamp.

NOTE: Engage the rear of each clamp in the corresponding slot in the panel in the rear of the compartment and then lower the clamp into position.

10. Secure the front of each clamp to its corresponding threaded stud with a lockwasher and nut.

Rear Compartment

- 1. Remove all loose parts from the rear battery compartment.
- Adjust the wiring entering the rear compartment so it will not interfere with battery installation or be inaccessible when needed.
- 3. Temporarily remove the cross-bar which is mounted over the rear battery compartment. Swing the compartment cover completely open and protect the paint with cardboard where the rear edge of the cover touches the outside of the rear compartment.
- 4. Place the battery tray in the bottom of the rear compartment so its drain hole lines up with the drain hole in the floor of the compartment.
- 5. Unfold the remaining poly bag and place it in the tray so the bag's bottom seam runs from front to rear. Flatten the pockets that form at the seam ends so the bottom of the bag conforms to the tray.
- 6. Carefully set the batteries in the bag as shown in Figure 7 so that the sides of the bag remain above the top battery surface in equal amounts and all wires are accessible.
- 7. Place one of the long vacuum-formed battery protectors along each side of the poly bag

(outside) so its corrugations will face the battery walls. (See Figure 7.)

- 8. Connect the battery cables and wires in accordance with Figure 7. Coat the terminals after connections are made with a thin film of Battery Terminal Protective Grease, AP31. Make sure all surfaces are coated!
- 9. Place the plastic cover over the batteries, but inside the top edges of the bag, making sure the battery cables go through the end slots of the cover.
- 10. Remount the cross-bar over the rear compartment so the seat switch is towards the back of the tractor.
- 11. Place the hold-down angle clamps along the sides of the battery cover, outside the top edges of the bag so the bag is between the cover and the clamps. Notice there is a left and right clamp.

NOTE: Engage the front of each clamp in the corresponding slot in the front of the compartment and then lower the clamp into position.

- 12. Secure the rear of each clamp to the compartment wall with a 1/4-20 bolt, lockwasher and nut so the head of the bolt is on the outside of the compartment.
- 13. Check that wires numbered 10 and 12 are connected to the seat switch which is mounted on the cross-bar over the rear battery compartment.
- 14. Charge batteries initially as instructed in the Use and Care Manual.

SEAT INSTALLATION

E8 Models

Align the four mounting holes in the bottom of the seat with the four holes in the rear cover. Use the center holes in the cover for average height operators. Secure the seat to the cover with $5/16 \times 1/2$ -inch bolts and lockwashers in the four mounting holes.

E10 Models

Insert 4 carriage bolts into the square holes in the seat pan so the heads are on the top side. Secure cushions (bottom and back) to the seat pan with washer-head 1/4-20 bolts. Remove the seat retaining cord from the rear cover.

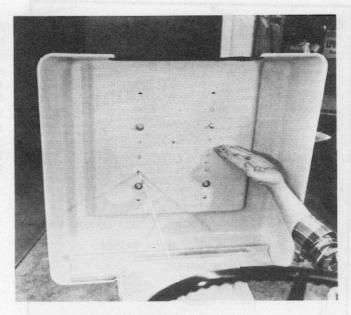


Figure 8

Mount the seat near the center of the adjustment range on the rear cover for average height operators. Secure each mounting bolt with a flat washer, lockwasher and nut in that order. See Figure 8.

MOWER ASSEMBLY AND INSTALLATION

DO NOT READJUST MOWER SUSPENSION ARMS

- 1. Mount the right-hand motor (closest to the side discharge opening) with its wire box towards the front of the mower. Mount the other motor so its wire box is towards the rear of the mower. Secure each motor with four screws, lockwashers, and nuts with the screw heads on the top side of the deck. (See Figure 9.)
- 2. Install a motor bracket on the underside of each deck-mounted angle support so that their tabs are flush with their motor's sides and directed upwards as shown in Figure 10. Secure with 1/4-20 x 3/4 inch bolts inserted from the top side with a washer, lockwasher and nut below each support. Finger tighten each nut.
- 3. Install a motor clamp around each motor so that it engages its corresponding bracket tab. See Figure 10. While holding the clamp parallel with the mower deck, tighten the clamp screw. Locate the screw toward the angle support to be inconspicuous when the mower is assembled to tractor. After the clamps are tightened, tighten the nuts holding the motor brackets to the angle supports.

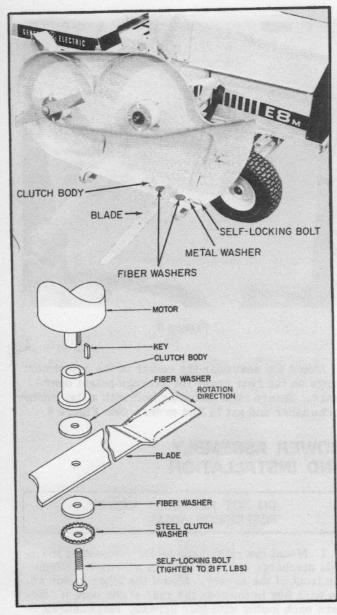


Figure 9

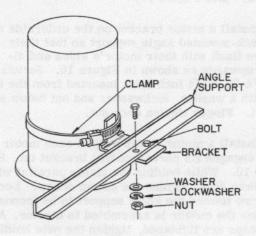


Figure 10

4. Install the clutch and blade assemblies. Model E8HM tractors are supplied with 2 sets of blades. The high-profile blades give a high discharge velocity, and the low profile blades give extended mowing range with lower discharge velocity. Install in like pairs only. See Figure 11. Observe the blade placement so the cutting edge is in the proper direction for rotation. Tighten each self-locking cap screw to approximately 21 footpounds of torque. Make sure the square key stays in place when installing each clutch hub. (See Figure 9.)

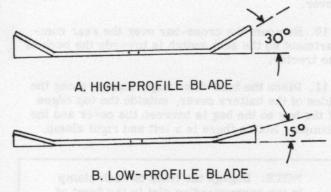


Figure 11

- 5. Install the safety mower chute as illustrated in Figures 12 and 13. Pass a $1/4-20 \times 5/8$ -inch bolt through each of the holes in the top plate, the holes nearest the lip of the mower deck opening, and the front two holes in the guard inside the chute. Secure them with lockwashers and nuts. Pass two more $1/4-20 \times 5/8$ -inch bolts through the other pair of holes in the mower deck and guard, and fasten them with lockwashers and nuts. Tighten the nuts securely.
- 6. Drive the tractor to a flat, level area, and remove the key, place the range selector in "L" and release the parking brake to give maximum clearance under the frame.

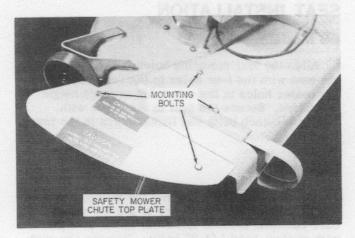


Figure 12

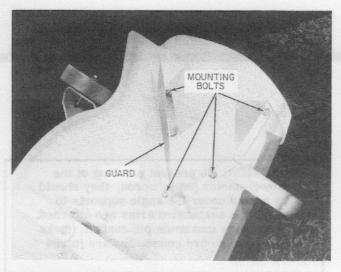


Figure 13

- 7. Install a wheel assembly in the <u>lowest</u> adjusting hole on each rear corner of the <u>mower</u>. This adjustment gives maximum cutting height for initial mowing passes. A 3/8-inch plain washer should be located between the bolt head and the wheel. Insert a sleeve bearing in each wheel. Secure each with a 3/8-inch lockwasher and nut. (See Figure 14.)
- Place the mower under the tractor in its approximate mounted position.
- 9. Insert all four suspension arms in their respective frame bushings so their lower ball rod ends lay on the mower deck near their mounting pins. (See Figure 15.) Do not readjust suspension arms. These are factory adjusted as shown in Figure 17.

WARNING: The rear suspension arm on the clutch/brake pedal side must be installed <u>inside</u> of the long, 1/4-inch, steel rod which connects the clutch/brake pedal to the idler arm. The inside of this rod is the side towards the center of the tractor.

10. Move the manual lift handle fully-forward, lift the mower deck manually, and attach both lift cables to their corresponding lift pins on the mower deck. Secure each with a plain washer and hair pin cotter. (See Figure 16.)

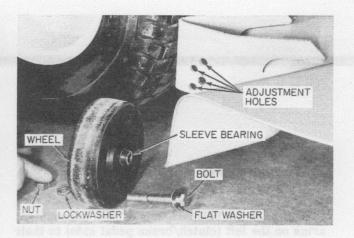


Figure 14

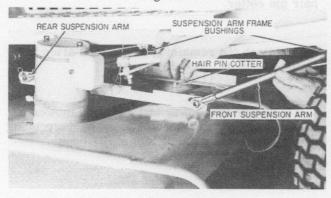


Figure 15

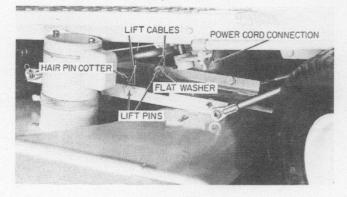


Figure 16

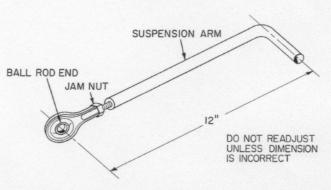


Figure 17

- 11. Raise mower with lift handle.
- 12. Attach the ball rod ends of both suspension arms on the left (clutch/brake pedal side) to their corresponding mounting pins. Secure each with a hair pin cotter.
- 13. Attach the remaining suspension arms in similar fashion. (See Figure 16.)
- 14. Lower the mower and join each mowermotor power-cord-connector to its corresponding power cord exiting the bottom of the frame.

CAUTION: To prevent pinching of the mower-motor power cords, they should be routed <u>under</u> the angle supports to which the <u>suspension</u> arms are attached. To provide maximum pin contact, make sure power cord connectors are joined tightly.

- 15. Oil all lift pivot points and mower rear wheel bearings.
- 16. Adjust tire pressure as indicated in the Use and Care Manual.
- Make an operational check of the tractor and mower.