

ASSEMBLY

NOTE: This Operator's Manual covers several models. Tractor features may vary by model. Not all features in this manual are applicable to all tractor models and the tractor depicted may differ from yours.

NOTE: All references in this manual to the left or right side and front or back of the tractor are from the operating position only. Exceptions, if any, will be specified.

Preparation

MANUALLY MOVING THE TRACTOR

1. To engage the transmission bypass, pull the transmission bypass lever (a) located to the right of the operator's seat (next to the park brake lever (b)), back and into the notch on the right side of the slot. See Figure 1.

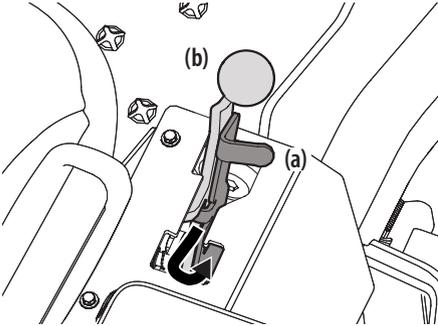


Figure 1

2. After moving tractor, reverse Step 1 to disengage the transmission bypass.
3. Remove the deck wash system nozzle adapter (if equipped) from the manual bag, store for future use.

INSTALL HITCH (IF NECESSARY)

1. Locate hitch (a) and install on the rear of the frame using the two hex washer screws (b) provided. See Figure 2.

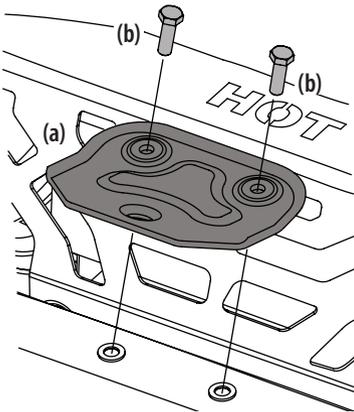


Figure 2

NOTE: Hitch and hex washer screws will be in the hardware pack.

REPOSITION UPPER HOOP (IF NECESSARY)

Upper hoop may be positioned down for shipping purposes:

1. Remove the two hex washer screws (a) partially installed on the frame. See Figure 3.

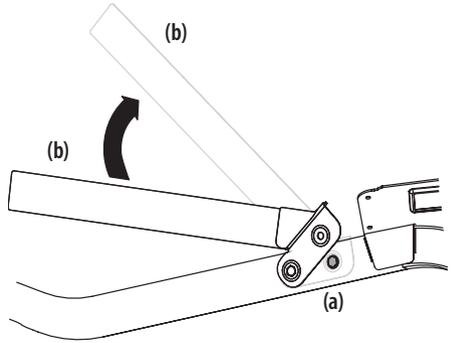


Figure 3

2. Rotate the upper hoop (b) into position. See Figure 3.
3. Secure hoop in place with the hex washer screws removed in Step 1. Torque the hex washer screws to 159-239 in-lbs (18-27 N-m).

Install Operator's Seat (If Necessary)

1. Remove any straps securing the seat assembly to the tractor. Remove all packing material.

NOTE: Be careful not to cut the seat wiring harness.

2. Install the seat onto the seat pan (c) using hardware provided. See Figure 4.
 - a. Use flange lock nuts (a) and flat washers (b). See Figure 4.

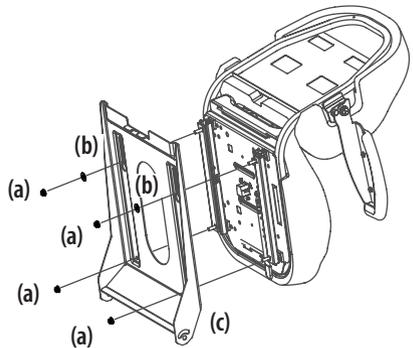


Figure 4

3. If necessary, securely connect the seat switch wiring harness (a) to the seat switch (b). See Figure 5 on page 9. Secure excess wire away from pinch points before continuing.

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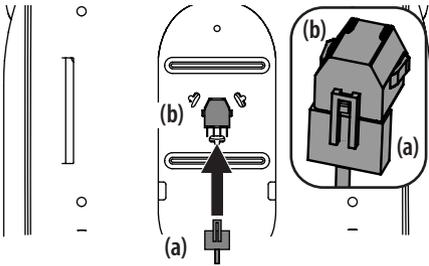


Figure 5

NOTE: Tractor will not operate without the seat switch wiring harness connected.

Steering Wheel (If necessary)

IMPORTANT! Do not use impact tools to install or remove the steering wheel.

1. Remove the hardware for attaching the steering wheel (a) from beneath the steering wheel cover (b). Carefully remove the cover by inserting a small, bladed screwdriver into one of the three snap locations and slowly prying up on the steering wheel cover (b) to remove the hardware. See Figure 6.

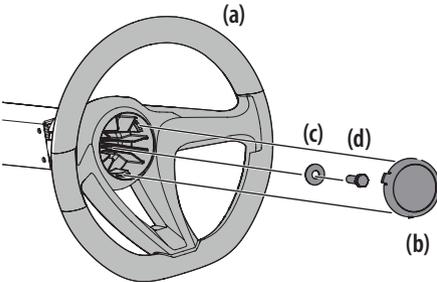


Figure 6

2. With the wheels of the machine pointing straight forward, place the steering wheel (a) over the steering shaft. See Figure 6.
3. Place the Belleville washer (c) with the cupped side facing inward over the steering wheel and secure with the hex lock screw (d). See Figure 6.
4. Place the steering wheel cover (b) over the center of the steering wheel (a), align the three snaps with the tabs in the steering wheel and push downward until it "clicks" into place. See Figure 6.
5. Proper steering column and seat adjustment will result in the following (to adjust the seat, refer to Adjusting the Seat):
 - a. In the neutral position with hands on the steering wheel:
 - Operator's upper arms should be relaxed and approximately vertical.
 - Operator's forearms should be approximately horizontal.
 - Operator's back should stay in contact with the seat back.
 - Steering column should not contact operator's legs.

6. Check the results of any adjustments to the conditions described above. Repeat any adjustment procedures as required until all conditions are met.

Steering Wheel Column

INSTALLING THE TILT LOCKING CYLINDER (IF NECESSARY)

1. Remove hardware from manual bag.
2. Sit in operator's seat.
3. With one hand, lift steering wheel column into a raised position.
4. While holding steering wheel column in a raised position, use other hand to raise tilt locking cylinder, aligning holes in top of cylinder with holes in cylinder mounting plates on the underside of the steering wheel column. See Figure 7.
5. Working from right to left, install flat washer and shoulder screw through holes aligned in Step 4 and secure with hex flange lock nut. Torque the shoulder screw to 120-144 in-lbs (14-16 N-m). See Figure 7.

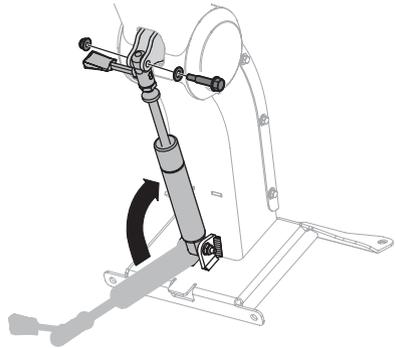


Figure 7

ADJUSTING THE STEERING WHEEL

1. To tilt the steering wheel column (a) forward, lift the steering column adjustment lever (b), place the steering wheel column (a) in the desired position and then release the steering wheel column adjustment lever (b) to secure the steering wheel column in place. See Figure 8.

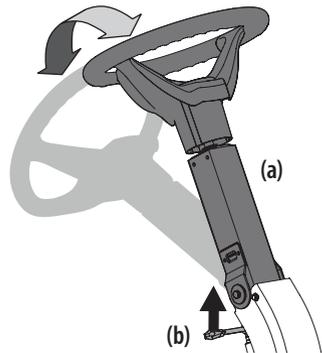


Figure 8

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NOTE: When the steering column adjustment lever is lifted, the steering wheel column will begin to raise up. Apply downward pressure on the steering wheel to lower the steering wheel column, if needed.

Lower Discharge Chute Deflector

WARNING

Never operate the mower deck without the chute deflector installed and in the down position.

ATTACHING THE CHUTE DEFLECTOR (IF NECESSARY)

1. Remove the keys attached with a zip tie to the chute bracket.
2. Remove the flange lock nut and hex screw from the deck.
3. Place the chute deflector on the deck, be sure to insert the tabs on the chute deflector into the holes on the deck. See Figure 9.

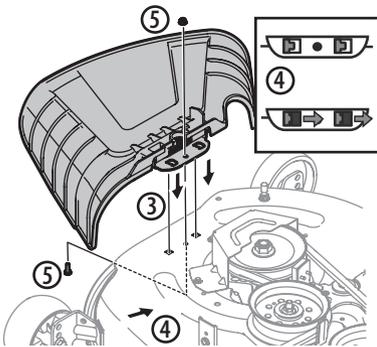


Figure 9

4. Slide the chute deflector toward the rear of the tractor until the bolt hole in the chute deflector aligns with the hole in the deck. See Figure 9.
5. Secure the chute deflector in place with the flange lock nut and hex screw removed in Step 2. Tighten to 102-124 in-lbs (12-14 N-m). Skip ahead to Setting Deck Wheels (If Equipped).

REMOVING THE STOP BRACKET (IF NECESSARY)

1. If the chute is shipped attached and with a stop bracket holding the chute upright, the stop brackets must be removed prior to operating the tractor.
2. Holding the chute deflector fully upward, remove the stop bracket. Lower the chute deflector and discard the stop bracket. See Figure 10.

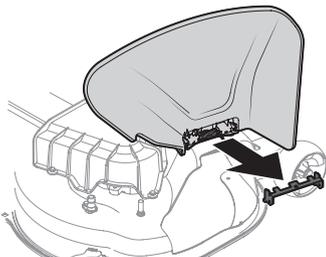


Figure 10

Setting Deck Wheels (If Equipped)

NOTE: The deck wheels are an anti-scalp feature of the deck and are not designed to support the weight of the cutting deck.

1. Move the tractor to a level surface, preferably pavement.
2. Check tire pressure, adjust if necessary. See tire side wall for proper tire pressure.
3. Make sure the deck is level side-to-side and properly pitched. See the Product Care section for deck leveling information and instructions.
4. Place deck lift lever or knob in the desired mowing height position and lower deck.
5. Check the wheels for contact or excessive clearance with the surface below.
NOTE: The deck wheels should have between 1/4" (6.35 mm) and 1/2" (12.7 mm) clearance above the ground.
6. Remove the lock nut (a), gauge wheel (b) and shoulder screw (c) from the deck. See Figure 11.

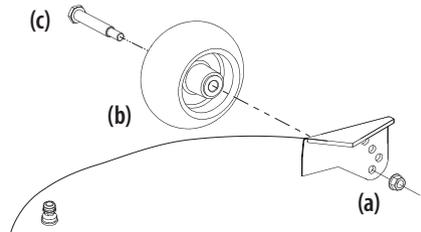


Figure 11

7. Insert the shoulder screw (c) into one of four index holes on the deck wheel bracket. Allow a 1/4-1/2" (6.35-12.7 mm) clearance between the ground and gauge wheel. See Figure 11.
8. Note the index hole used on previously adjusted wheel. Repeat adjustment on opposite side to align both gauge wheels.

Battery Information

WARNING

California PROPOSITION 65 WARNING: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

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⚠ WARNING

Should battery acid accidentally splatter into the eyes or onto the skin, rinse the affected area immediately with clean cold water. Seek prompt medical attention.

If acid spills on clothing, first dilute it with clean water, then neutralize with a solution of ammonia/water or baking soda/water.

NEVER connect (or disconnect) battery charger clips to the battery while the charger is turned on, as it can cause sparks. Keep all sources of ignition (cigarettes, matches, lighters) away from the battery. The gas generated during charging can be combustible.

As a further precaution, only charge the battery in a well ventilated area.

Always shield eyes and protect skin and clothing when working near batteries.

Batteries contain sulfuric acid and may emit explosive gases. Use extreme caution when handling batteries. Keep batteries out of the reach of children.

The battery may present a risk of fire or chemical burn if misused. Do NOT open, disassemble, overheat, or incinerate the battery.

NOTE: The positive battery terminal is marked Pos. (+). The negative battery terminal is marked Neg. (-).

CONNECTING BATTERY CABLES

⚠ WARNING

Always connect the positive lead to the battery before connecting the negative lead. This will prevent sparking or possible injury from an electrical short caused by contacting the tractor body with tools being used to connect the cables.

For shipping reasons the factory may leave both battery cables disconnected from the terminals. To connect the battery cables, proceed as follows:

NOTE: Wiring harness should lay on top of battery hold down rod, otherwise damage to the wiring harness may result. See Figure 15 on page 12.

Models with Lead-Acid Battery

1. If present, remove the plastic cover from the positive battery terminal. Attach the red connector to the positive battery terminal (+) using the bolt (a) and hex nut (b). See Figure 12.
2. If present, remove the plastic cover from the negative battery terminal and attach the black cable to the negative battery terminal (-) with the bolt (a) and hex nut (b). See Figure 12.
3. Position the red rubber boot (c) over the positive battery terminal to help protect it from corrosion. See Figure 12.

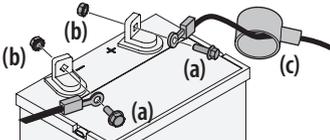


Figure 12

NOTE: If the battery is put into service after date shown on top/side of battery, charge the battery as instructed in the Charging the Battery section, prior to operating.

Models with AGM Battery

1. Remove the factory installed hex screws (a) and square nuts (b) located either on the end of the wiring harness or in the bag with this manual. Retain the hardware for later instructions. See Figure 13.
2. Remove the plastic cover (c), if present, from the positive battery terminal (d) and attach the red cable (e) to the positive battery terminal (d) with one of the hex screws (a) and square nuts (b), from Step 1. Use a Phillips screw driver. See Figure 13.
3. Position the red rubber boot over the positive battery terminal to help protect it from corrosion. See inset in Figure 13.
4. Remove the plastic cover (c), if present, from the negative battery terminal (f) and attach the black cable (g) to the negative battery terminal (f) with the remaining hex screw (a) and square nut (b). See Figure 13.

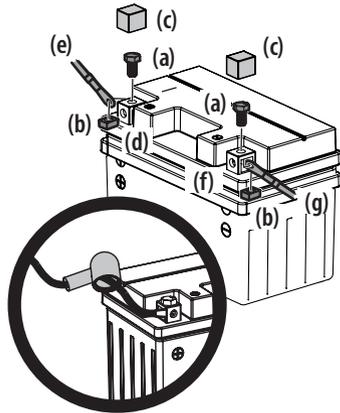


Figure 13

NOTE: If the battery is put into service after date shown on top/side of battery, charge the battery as instructed in Charging the Battery, prior to operating.

BATTERY MAINTENANCE

- Some batteries are filled with battery acid and then sealed at the factory. However, even a “maintenance free” battery requires some maintenance to ensure its proper life cycle.
- Spray the terminals and exposed wire with a battery terminal sealer or coat the terminals with a thin coat of grease or petroleum jelly, to protect against corrosion.
- Always keep the battery cables and terminals clean and free of corrosion.
- Some models are equipped with a battery containing a liquid electrolyte. Handle the battery with care and avoid tipping to prevent leakage.

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BATTERY STORAGE

- When storing the tractor for extended periods, disconnect the negative battery cable. It is not necessary to remove the battery.
- All batteries discharge during storage. Keep the exterior of the battery clean, especially the top. A dirty battery will discharge more rapidly.
- The battery must be stored with a full charge. A discharged battery can freeze sooner than a charged battery. A fully charged battery will store longer in cold temperatures than hot.
- Recharge the battery before returning to service. Although the tractor may start, the engine charging system may not fully recharge the battery.

BATTERY REMOVAL

⚠ WARNING

Battery posts, terminals, and related accessories contain lead and lead compounds. Wash hands after handling.

The battery is located beneath the seat frame. To remove the battery:

Models with Lead-Acid Battery

1. Remove the hex cap screw and sems nut securing the black negative battery lead to the negative battery post (marked NEG (-)). Move the cable away from the negative battery post.
2. Remove the hex cap screw and sems nut securing the red positive battery lead to the positive battery post (marked POS (+)).
3. Remove the hex washer screw (a) securing the battery hold-down rod (b) to the frame. Then flip the battery hold-down rod (b) up to free the battery. See Figure 14.

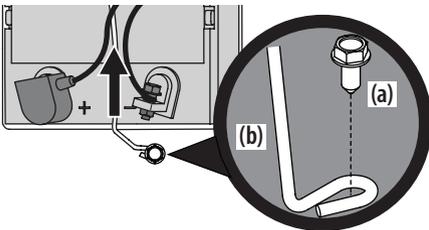


Figure 14

4. Carefully lift the battery out of the tractor.
5. Install the battery by repeating the above steps in the reverse order.

Models with AGM Battery

1. Remove the hex screw and square nut securing the black negative battery lead to the negative battery post (marked NEG (-)). Move the cable away from the negative battery post.
2. Remove the hex screw and square nut securing the red positive battery lead to the positive battery post (marked POS (+)).

3. Remove the battery hold down rod by pushing the hooked end out of the tab on the fender to the right side of the battery. Then flip the battery hold down rod up to free the battery. See Figure 15.

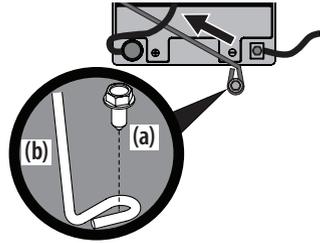


Figure 15

4. Carefully lift the battery out of the tractor.
5. Install the battery by repeating the above steps in the reverse order.

CHARGING THE BATTERY

Test and, if necessary, recharge the battery after the tractor has been stored for a period of time.

Models with Lead-Acid Battery

- A voltmeter or load tester reading of 12.4 volts (DC) or lower across the battery terminals indicates that the battery needs to be charged.
- A lead-acid battery charger should be used. Recommended charge rate is 4A/14.7V.
- If your battery charger is automatic, charge the battery until the charger indicates that charging is complete. If the charger is not automatic, charge for no fewer than eight (8) hours.

Models with AGM Battery

- An AGM battery charger should be used. Recommended charge rate is 1.1A/14.8V.
- IMPORTANT!** Do NOT use an automotive charger.
- If your battery charger is automatic, charge the battery until the charger indicates that charging is complete. If the charger is not automatic, charge for no fewer than eight (8) hours.

Adjusting the Seat

1. Push and hold the seat adjustment lever to the left to adjust the seat position.
2. Slide seat forward or rearward to desired position.
3. Release the adjustment lever. Ensure seat is locked into position before operation. See Figure 16.

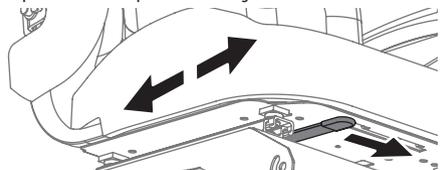


Figure 16