

# ASSEMBLY

**NOTE:** This Operator's Manual covers several models. Not all features in this manual are applicable to all models and the model 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.

Refer to Figure 1 to match your transmission style; Foot Control CVT (Continuously Variable Transmission), CVT or Hydrostatic.

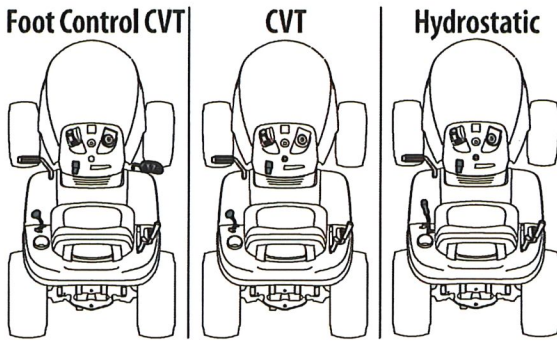


Figure 1

## Manually Moving the Tractor

### HYDROSTATIC MODELS (IF EQUIPPED)

1. Remove parking brake if activated.
2. Engage the transmission bypass rod to move the tractor manually without starting it. The transmission bypass rod is located on the rear of the tractor, on the frame. Engage the bypass rod by pulling out and down. See Figure 2.

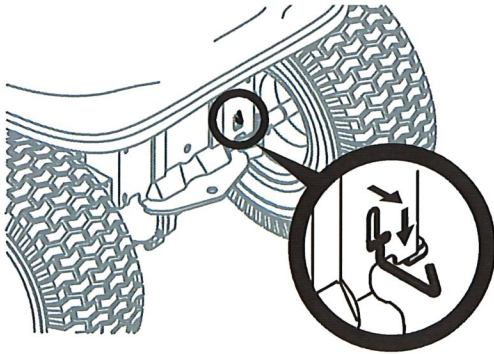


Figure 2

**NOTE:** If the tractor will not move or does not move freely when pushing check if the hydrostatic bypass rod is fully open or the brake is engaged.

**NOTE:** The transmission will NOT engage when the hydrostatic bypass rod is pulled out. Return the rod to its disengaged position prior to operating the tractor.

3. Disengage the transmission bypass rod by pushing the rod back in after moving the tractor.

### CVT OR FOOT CONTROL CVT MODELS (IF EQUIPPED)

1. Release Parking Brake, if activated.
2. Place the shift lever in the NEUTRAL (N) position.

## Install Operator's Seat (If necessary)

### KNOB ADJUST OR BOLT ADJUST

**NOTE:** The seat is shipped fastened to the tractor seat's pivot bracket with a cable tie OR mounted backward to the pivot bracket.

To install the seat proceed as follows:

1. Remove the seat from its shipping position.
2. Remove the seat adjustment knob or 9/16" bolt (a) from the bottom of the seat (b). See Figure 3.

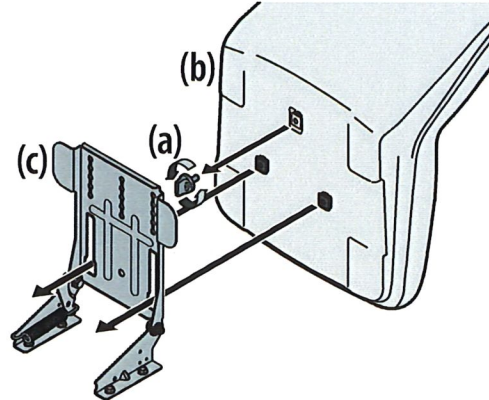


Figure 3

3. Align the seat (b) over the seat pivot bracket (c) as shown in Figure 3 and fit the seat (b) onto the seat pivot bracket (c) inserting the two tabs on the seat (b) bottom into the wide opening of the slots on the seat pivot bracket (c).
4. Slide the seat (b) rearward in the seat pivot bracket (c), lining up one of the slots in the seat pivot bracket (c) with the hole in the center rear of the seat (b) base. See Figure 4.

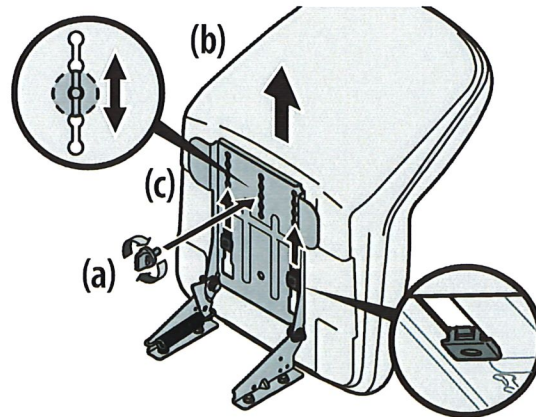


Figure 4

**NOTE:** Be certain the two seat tabs engage the seat pivot bracket as shown in the bottom right inset of Figure 4.

5. Select the desired position for the seat (b), and secure with the adjustment knob or 9/16" bolt (a) removed in Step 2. See Figure 4.

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### Dash Shroud (If equipped)

1. If the dash shroud (a) was shipped loose, the hardware for attaching the dash shroud (a) is shipped attached to the dash shroud (a). Remove the two bolts (b) from the dash shroud (a). See Figure 5.
2. Mount the dash shroud (a) and align the mounting holes between the top of the dash and the dash shroud. See Figure 5.
3. Secure the dash shroud (a) to the dash (c) with the bolts (b) removed in Step 1. See Figure 5.

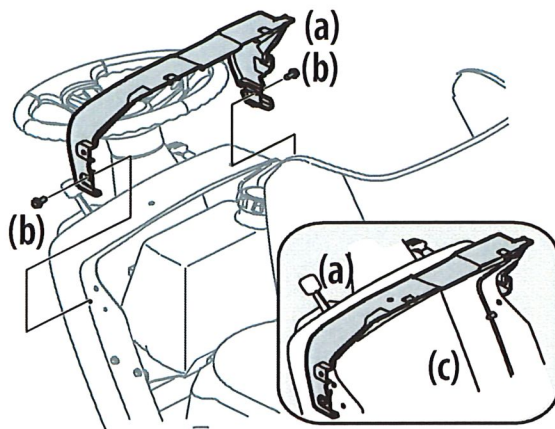


Figure 5

### Attaching the Hood Topper (If necessary/If equipped)

**NOTE:** Be careful not to damage the headlight harness when installing the hood topper.

1. Cut the cable ties securing the hood topper to the tractor.
2. Remove the four screws pre-installed in the hood topper and retain for Step 4.
3. Snap the hood topper into place using the hood as your guide. See Figure 6.

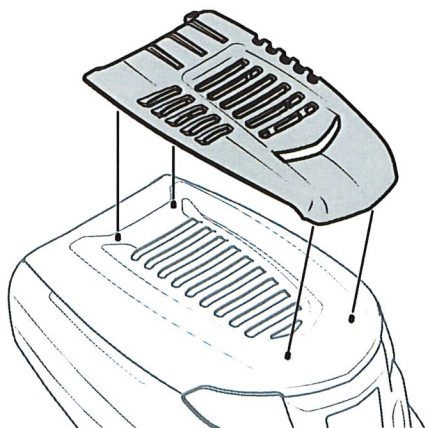


Figure 6

4. Install the hood topper onto the hood of the tractor and secure from the underside using the four screws removed in Step 2.

### Installing the Steering Wheel (If necessary)

The hardware for attaching the steering wheel has been packed within the steering wheel, beneath the steering wheel cap. Carefully remove the cover by inserting a small flat screwdriver into one of the three snap locations, while slowly prying up on the steering wheel cap to remove the hardware.

**IMPORTANT!** Do not use impact tools to install or remove the steering wheel. Doing so can over-torque and damage the fastener.

1. Remove the key, attached with a cable tie to the steering wheel.
2. With the front wheels of the tractor pointing straight forward, align the steering wheel (a) and place it onto the steering shaft (b). See Figure 7.

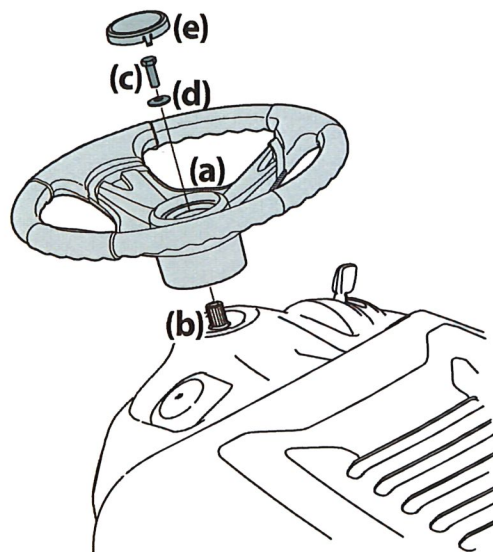


Figure 7

3. Secure the steering wheel (a) with the hex bolt (c) and washer (d) from under the steering wheel cap (e) and torque to 18-22 ft-lbs (24-30 N-m). See Figure 7.
4. Place the steering wheel cap (e) over the center of the steering wheel (a) and push downward until it "clicks" into place. See Figure 7.

**NOTE:** The hex bolt (c) securing the steering wheel (a) has thread locker applied to it, so if it is removed, it is recommended that the hex bolt (c) be replaced or thread lock re-applied. See Figure 7.



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## Lower Deck Discharge Chute Deflector (If equipped)

### ⚠ WARNING

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

#### 46" DECK MODELS

1. Remove the key 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 8.
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 8.
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). See Figure 8. Skip ahead to Setting the Deck Wheels.

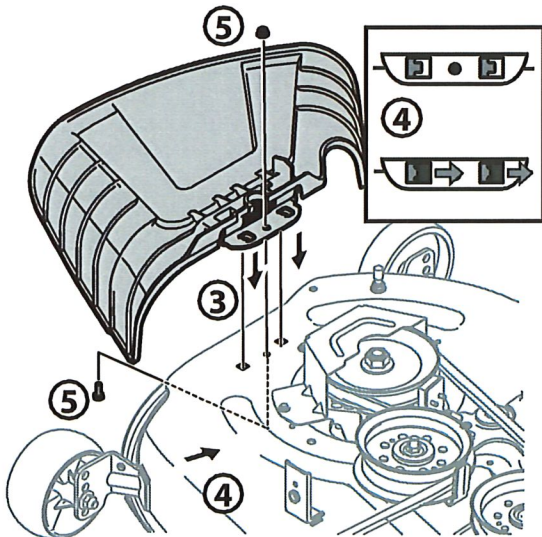


Figure 8

#### 38"/42"/50"/54" DECK MODELS

1. Check the tractor deck for a shipping brace that may be holding the chute deflector upward for shipment. If the shipping brace is present, it must be removed before operating the tractor. Holding the chute deflector fully upward, remove the shipping brace.
2. Lower the chute deflector and discard the shipping brace. See Figure 9.

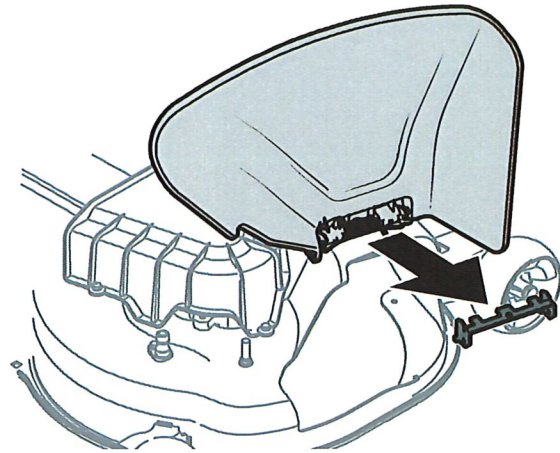


Figure 9

**NOTE:** 36" deck models come equipped with mulch plugs rather than chute deflectors and no shipping brace is included.

## Setting the 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 the tire pressure, adjust, if necessary. See tire sidewall for proper tire pressure.
3. Make sure the deck is level side-to-side and properly pitched. See the Service and Maintenance section for deck leveling information and instructions.
4. Place deck lift lever in the desired mowing height position.
5. Check the wheels for contact or excessive clearance with the surface below.

**NOTE:** The deck wheels should have between 1/4"-1/2" (6.35 mm-12.7 mm) clearance above the ground. Proceed as follows to adjust the wheels:

- a. Raise the deck lift lever to its highest setting.
- b. Remove the front (a) and rear (b) deck wheels by removing the flange lock nuts (c) and shoulder bolts (d) that secure them to the deck. See Figure 10.

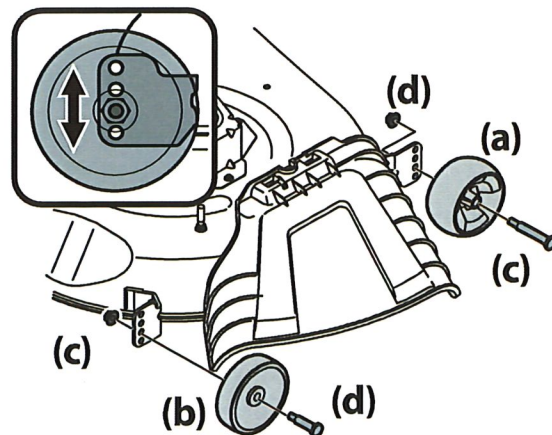


Figure 10

## ASSEMBLY

- c. Place the deck lift lever in the desired mowing height setting.
- d. Reinsert the shoulder bolt (with each deck wheel) into the index hole that leaves approximately 1/2" (13 mm) between the bottom of the wheel and the pavement. Tighten the flange lock nut and shoulder bolt to between 25-30 ft-lbs (34-40 N-m) using a torque wrench.

**NOTE:** Refer to Leveling the Deck in the Service and Maintenance section of this manual for more detailed instructions regarding various deck adjustments.

### 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.

#### ⚠ 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.

#### ⚠ CAUTION

When attaching battery cables, always connect the POSITIVE (Red) wire to terminal first, followed by the NEGATIVE (Black) wire.

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

### CONNECTING THE BATTERY CABLES

#### ⚠ WARNING

When attaching battery cables, always connect the POSITIVE (Red) wire to its terminal first, followed by the NEGATIVE (Black) wire.

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 14 on page 13.

#### 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 11.
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 11.

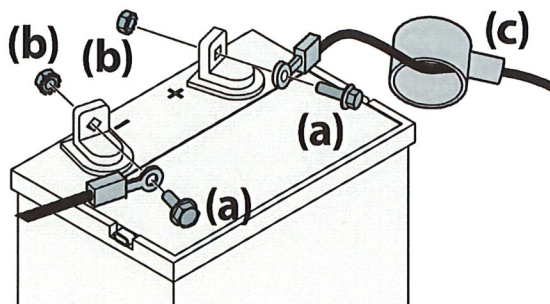


Figure 11

3. Position the red rubber boot (c) over the positive battery terminal to help protect it from corrosion. See Figure 11.

**NOTE:** If the battery is put into service after the date shown on top/side of battery, charge the battery as instructed in the Charging the Battery section on page 13 prior to operating the tractor.



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## Models with AGM Battery

1. Remove the 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 12.
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 Philips screw driver. See Figure 12.
3. 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 12.
4. Position the red rubber boot over the positive battery terminal to help protect it from corrosion. See inset in Figure 12.

**NOTE:** If the battery is put into service after the date shown on top/side of battery, charge the battery as instructed in the Charging the Battery section on page 13 prior to operating the tractor.

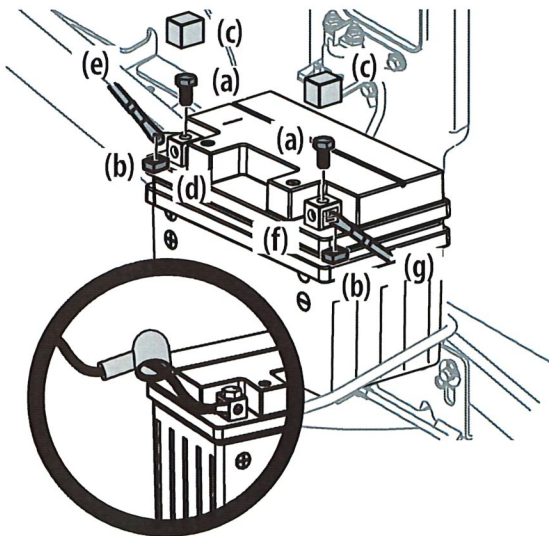


Figure 12

## 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.

## 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 bolt and hex 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 bolt and hex nut securing the red positive battery lead to the positive battery post (marked POS (+)).
3. Remove the battery hold down bracket 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 bracket up to free the battery. See Figure 13.

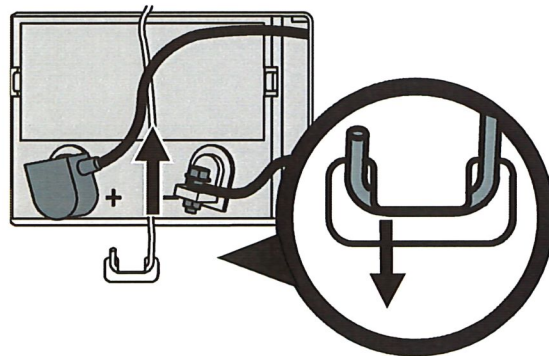


Figure 13

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

# ASSEMBLY

## 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 14.

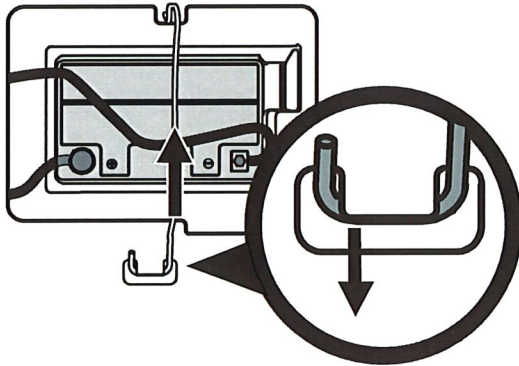


Figure 14

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

## 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

### KNOB ADJUST OR BOLT ADJUST

To adjust the position of the seat, remove the adjustment knob or 9/16" bolt (a) on the bottom of the seat (b). Slide the seat (b) forward or backward as desired. Reinstall the adjustment knob or 9/16" bolt (a). See Figure 4 on page 8.

## Oil

**NOTE:** Your tractor is shipped with oil in the engine. However, you **MUST** check the oil level before operating. See the Engine Operator's Manual for instructions on checking, adding and changing oil.

## ⚠ WARNING

Always check the engine oil level before each use as instructed in the Engine Operator's Manual. Add oil as necessary. Failure to do so may result in serious damage to your engine.