

# Assembly & Set-Up

## Thank You

Thank you for purchasing this product. It was carefully engineered to provide excellent performance when properly operated and maintained.

Please read this entire manual prior to operating the equipment. It instructs you how to safely and easily set up, operate and maintain your machine. Please be sure that you, and any other persons who will operate the machine, carefully follow the recommended safety practices at all times. Failure to do so could result in personal injury or property damage.

All information in this manual is relative to the most recent product information available at the time. Review this manual frequently to familiarize yourself with the machine, its features and operation. Please be aware that this Operator's Manual may cover a range of

product specifications for various models. Characteristics and features discussed and/or illustrated in this manual may not be applicable to all models. We reserve the right to change product specifications, designs and equipment without notice and without incurring obligation.

If applicable, the power testing information used to establish the power rating of the engine equipped on this machine can be found at [www.opei.org](http://www.opei.org) or the engine manufacturer's web site.

If you have any problems or questions concerning the machine, phone your local authorized service dealer or contact us directly. We want to ensure your complete satisfaction at all times.

Throughout this manual, all references to *right* and *left* side of the machine are observed from the operating position.

## Contents of Crate

- |                      |                         |                                |
|----------------------|-------------------------|--------------------------------|
| • Tractor (1)        | • Operator's Manual (1) | • Engine Operator's Manual (1) |
| • Hood Topper (1) †  | • Dash Cap (1) †        | • Steering Wheel Asm. (1) †    |
| • Front Bumper (1) † | • Hood Collar (1) †     | • Hood Plenum (1) †            |
| • Hardware Bag       |                         |                                |

† — If Equipped

**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.

## Tools Required

- $\frac{5}{16}$ " wrench and/or socket
- $\frac{5}{8}$ " wrench and/or socket
- $\frac{1}{2}$ " wrench and/or socket
- $\frac{7}{16}$ " wrench and/or socket
- Phillips screwdriver
- Standard screwdriver

## Tractor Preparation

### Manually Moving the Tractor

#### ⚠ CAUTION

Never tow your tractor. Towing the tractor with the rear wheels on the ground may cause severe damage to the transmission.

1. 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. See Figure 2-1.

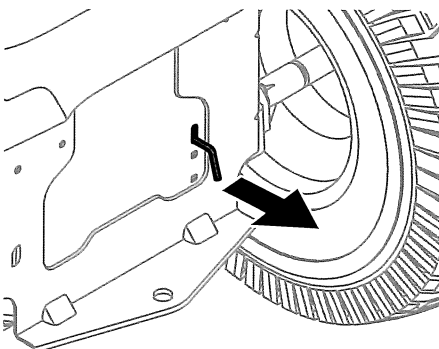


Figure 2-1

**Note:** If the tractor will not move or does not move freely when pushing check if the bypass lever 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 normal position prior to operating the tractor. If the tractor will not move when pushing on the forward/reverse pedals, or moves slowly, check to see if the bypass valve is on.

2. Disengage the bypass rod by pushing the rod back in after moving the tractor. See Figure 2-1.

### Install Operator's Seat (If necessary)

#### ⚠ WARNING

Before operating the tractor, make sure the seat is engaged in the seat-stop. Engage the parking brake. Stand behind the machine and pull back on seat until it clicks into place.

To install the seat proceed as follows:

1. **Note:** The seat is shipped with the seat switch and seat pan attached.  
Cut any straps securing the seat assembly to the tractor. Remove any packing material.  
**Note:** Be careful not to cut the wiring harness connecting the seat and the seat switch.

2. Remove the two shoulder bolts (a) and flange lock nuts (b) in the seat pan as shown in Figure 2-2.

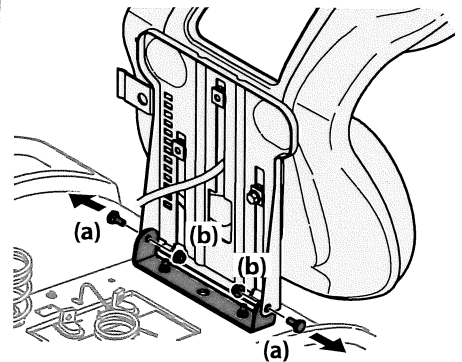


Figure 2-2

3. Rotate the seat into position and slide a Phillips screwdriver through one of the seat-securing holes and seat bracket for alignment.

- Then with the previously removed shoulder bolts (a) and flange lock nuts (b) secure one side of the seat and seat bracket. While supporting the seat, remove the Phillips screwdriver and secure the other side of the seat. Be careful not to crimp or damage the wire harness while installing the seat. See Figure 2-3.

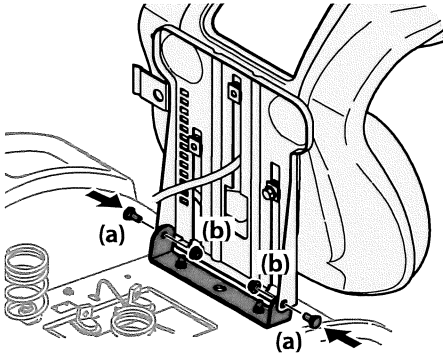


Figure 2-3

- Using the harness clip attached to the harness, secure the excess wire to the fender by snapping the harness clips in place as shown in Figure 2-4.

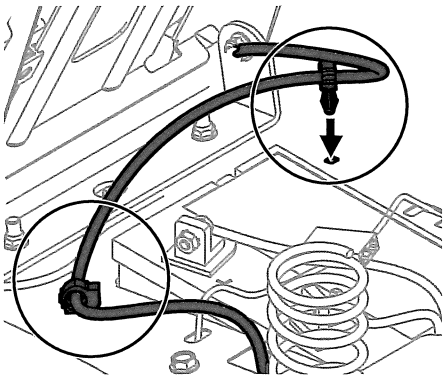


Figure 2-4

#### Lower Deck Discharge Chute Deflector

##### ⚠ WARNING

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

- Check the mower deck for a shipping brace that may be holding the chute deflector upward for shipment. If the brace is present, it must be removed before operating the tractor. Holding the chute deflector fully upward, remove the shipping brace. Lower the chute deflector and discard the shipping brace. See Figure 2-5.

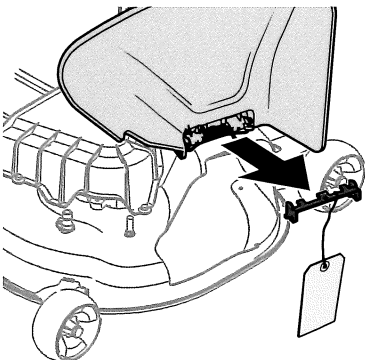


Figure 2-5

#### Installing the Hood Collar (If necessary)

There are three (3) alignment posts (a) on the hood collar (b) that line up with corresponding alignment holes (c) in the hood (d). See Figure 2-6.

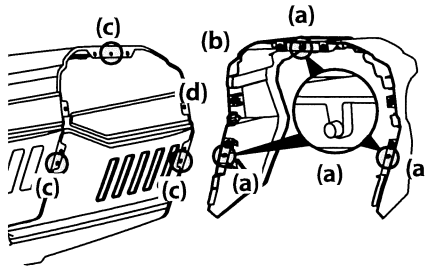


Figure 2-6

Use these alignment points to properly position the hood collar (a) and then secure it in place with the six hex bolts (b) provided in the hardware bag. See Figure 2-7. Tighten the hex bolts to 102-124 in-lbs.

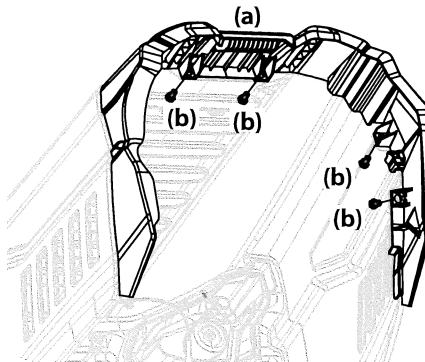


Figure 2-7

#### Installing the Snap-On Hood Topper (If necessary)

To install the snap-on hood topper (a), line up the holes on the hood topper (a) up with the tabs (b) in the hood frame as shown in Figure 2-8. Insert the tabs (b) into the hood topper and pull back to lock into place.

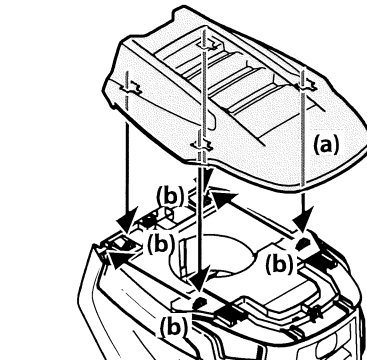


Figure 2-8

Once the hood topper is in place, the two locking tabs (a) near the rear of the hood need to be pushed upward to lock the hood topper in place. See Figure 2-9.

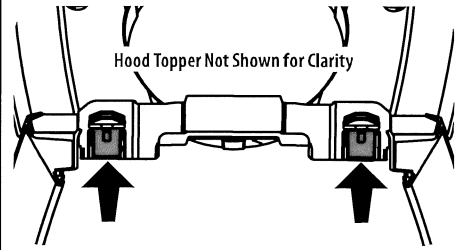


Figure 2-9

#### Installing the Screw-On Hood Topper (If necessary)

**Note:** Be careful not to damage the headlight harness when installing the screw-on hood topper.

Set the hood topper up against the top of the hood with the hood open, and align the holes on the hood.

Secure the screw-on hood topper (a) from below, hand-tighten the screws (b) on the rear half of the hood and then snug them. See Figure 2-10.

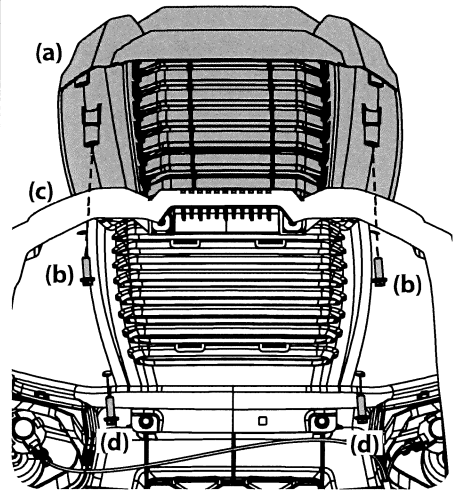


Figure 2-10

With the rear screws in place, align the holes in the hood topper (a) with the holes in the hood (c) and secure in place with remaining two screws (d). See Figure 2-10.

Tighten all four screws to 16-24 in-lbs.

#### Installing the Plenum (If necessary)

**Note:** Be careful not to damage the headlight harness when installing the plenum.

To install the plenum (a) onto the hood (b), first insert the rear tabs (c) as shown in Figure 2-11.

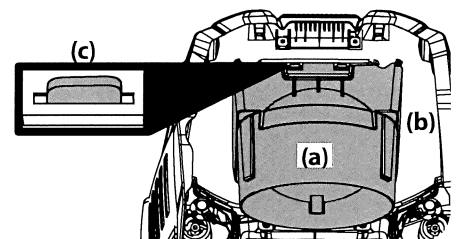


Figure 2-11

With the rear tabs installed, insert the front tabs (a) on the plenum (b) as shown in Figure 2-12.

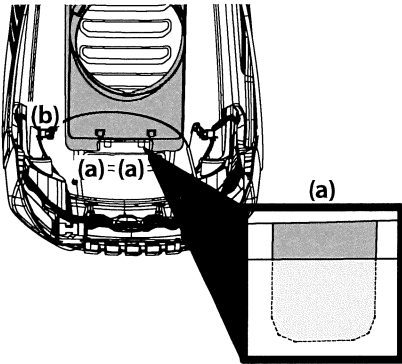


Figure 2-12

**Note:** The rear tabs fit into a recessed area on the top of the hood. They slide up from under the hood and into these recessed areas.

Push up on the bottom of the plenum to make sure that the plenum is securely in place.

Secure the headlight harness (a) into the two guides (b) on the front of the plenum. See

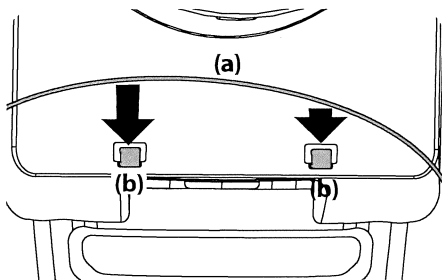


Figure 2-13

### Installing the Dash Cap (If necessary)

To install the dash cap (a), line up the tabs (b) on the dash cap (a) with the holes in the upper dash as shown in Figure 2-14. Slide the tabs (b) into the holes in the upper dash and push forward (c) on the dash cap (a) to lock into place.

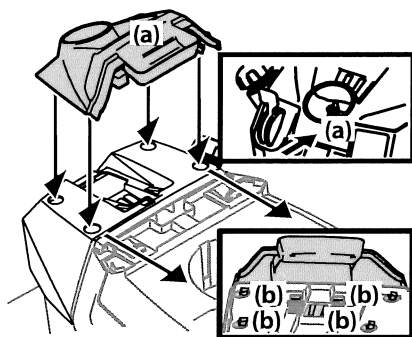


Figure 2-14

**Note:** Be sure to press on the lower part of the dash cap (a) facing the operator position to ensure the lower tabs on the dash cap are in place.

### 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 pry off the steering wheel cap and remove the hardware.

**IMPORTANT!** Do not use impact tools to install or remove the steering wheel. Doing so may cause damage to critical power steering components (if so equipped).

1. With the wheels of the tractor pointing straight forward, align the steering wheel (a) by using the center-line (b) on the front of the steering wheel (a) pointing straight ahead and the flat section (c) of the steering wheel (a) facing toward the seat, place the steering wheel (a) over the steering shaft (d). See Figure 2-15.

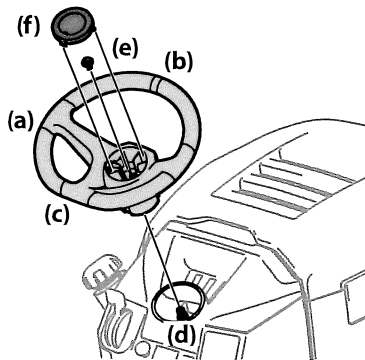


Figure 2-15

2. Secure the steering wheel (a) with the hex bolt (e) from under the steering wheel cap (f) and torque to 18-22 ft.-lbs.
3. Place the steering wheel cap (f) over the center of the steering wheel (a) and push downward until it "clicks" into place.

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

### Installing the Front Bumper (If necessary)

The hardware for attaching the front bumper is shipped installed into the bumper.

1. Remove the four hex screws (a) from the bumper (b).
2. Position the bumper brackets to the *inside* of the tractor's frame and secure it in place with the four hex flange screws (a). See Figure 2-16.

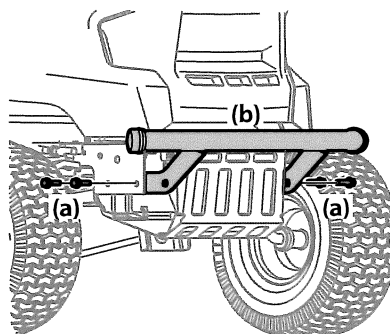


Figure 2-16

### Installing the FastAttach™ Brush Guard (if Equipped)

#### ⚠ WARNING

Disengage the PTO, engage the brake lock, and stop the tractor engine before performing any preparation procedures. Place the tractor on a firm and level surface before beginning installation or removal procedures.

#### ⚠ WARNING

The exhaust system and surrounding areas are HOT. To avoid personal injury, allow the tractor to cool before beginning any brush guard installation or removal procedures.

3. Align the brush guard assembly with the FastAttach™ brackets and push assembly together. See Figure 2-17.

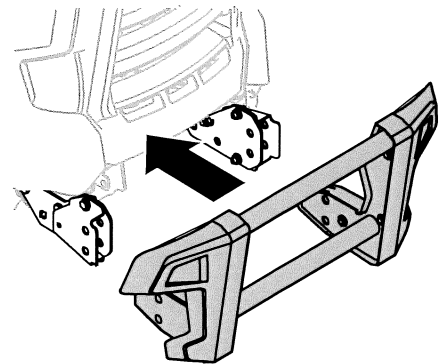


Figure 2-17

4. Install the pins on the right and left side of brush guard and then secure with two cotter pins found in the hardware pack. See Figure 2-18.

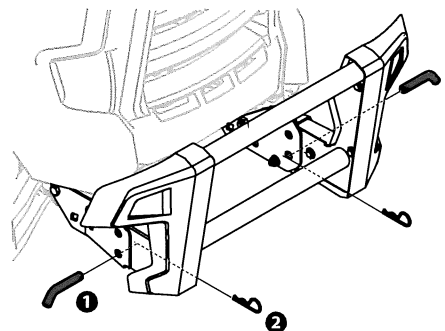


Figure 2-18

**Note:** Pulling up lightly on the brush guard may make installation of the pins easier.

## Adjusting the Seat

To adjust the position of the seat, lift the seat adjustment lever up. Slide the seat forward or rearward to the desired position; then release the adjustment lever. Make sure seat is locked into position before operating the tractor. See Figure 2-19.

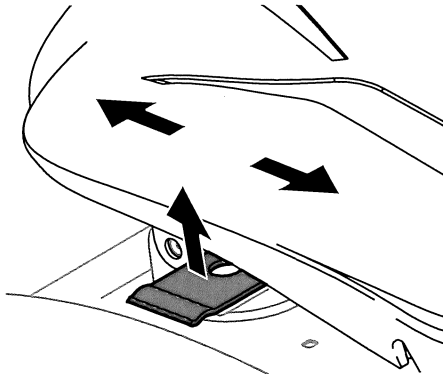


Figure 2-19

## Connecting the Battery Cables

### ⚠ WARNING

California **PROPOSITION 65** 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.

### ⚠ CAUTION

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

For shipping reasons, both battery cables on your equipment may have been left disconnected from the terminals at the factory. To connect the battery cables, proceed as follows:

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

1. Remove the plastic cover, if present, from the positive battery terminal and attach the red cable to the positive battery terminal (+) with the bolt (a) and hex nut (b). See Figure 2-20.

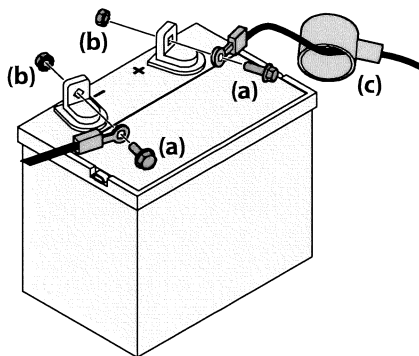


Figure 2-20

2. Position the red rubber boot (c) over the positive battery terminal to help protect it from corrosion.

3. Remove the plastic cover, if present, 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 2-20.

**Note:** If the battery is put into service after the date shown on top/side of battery, charge the battery as instructed in the Product Care section on page 8 prior to operating the tractor.

## Checking Tire Pressure

### ⚠ WARNING

Equal tire pressure should be maintained at all times. Refer to the tire sidewall for proper pressure.

The tires on your tractor may be over-inflated for shipping purposes. Reduce the tire pressure before operating the tractor. Check the sidewall of tire for maximum p.s.i.

**Note:** Equal tire pressure is critical for level cutting deck performance.

## Setting the Deck Wheels

### ⚠ WARNING

Keep hands and feet away from the discharge opening of the cutting deck.

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

Move the tractor on a firm and level surface, preferably pavement, and proceed as follows:

1. Check the tire pressure, make sure the pressure is correct and equal on all tires.
2. Make sure the deck is level, both front-to-back and side-to-side. See the Product Care section for deck leveling information and instructions.
3. Select the height position of the cutting deck by placing the deck lift lever in the normally desired mowing height setting.
4. Check the wheels for contact or excessive clearance with the surface below. The deck wheels should have between  $\frac{1}{4}$ " and  $\frac{1}{2}$ " clearance above the ground. Proceed as follows to adjust the wheels:
  - a. Raise the deck lift handle 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 2-21.

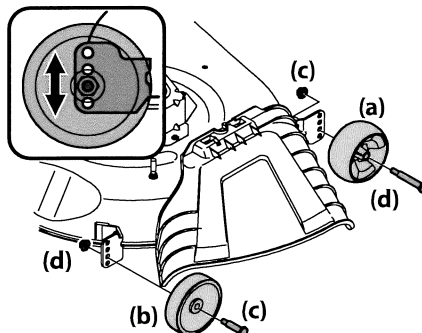


Figure 2-21

- 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  $\frac{1}{2}$ -inch between the bottom of the wheel and the pavement. Tighten the flange lock nut and shoulder bolt to between 25-30 ft-lbs using a torque wrench.

**Note:** Refer to Adjusting the Deck in the Product Care section of this manual for more detailed instructions regarding various deck adjustments.

## Gas & Oil

The fuel tank is located at the outer/left of the dash and holds 3 gallons of gas (EFI tractors hold 2.5 gallons). Remove the fuel cap by turning it counter-clockwise. Use only clean, fresh (no more than 30 days old), unleaded gasoline. Fill the tank no higher than the bottom of the fill neck to allow space for fuel expansion.

### ⚠ WARNING

Use extreme care when handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Never fuel the machine indoors or while the engine is hot or running. Extinguish cigarettes, cigars, pipes and other sources of ignition.

**Note:** Your tractor is shipped with oil in the engine. However, you **MUST** check the oil level before operating. See the Product Care section for instructions on checking, adding and changing oil.

### ⚠ CAUTION

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.