# Hustler<sup>®</sup> Zevo<sup>™</sup> Operator's Manual



200 South Ridge Road Hesston, Kansas 67062

# **A**WARNING

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. Batteries also contain other chemicals known to the State of California to cause cancer. WASH HANDS AFTER HANDLING

General Information1-1
To the New Owner1-1Using this Manual1-1Warranty Registration1-1Model and Serial Number1-1Parts and Service1-1Product Literature1-1
Safety Precautions
Safe Operating Practices2-1Service Precautions2-4Safety and Instructions Decals2-5
Operation
Safe Operating Practices3-1Control Panel3-1Controls3-1Safety Start Interlock System3-1Mower Operation3-3Deck Cutting Height Adjustment3-6Battery Charger3-6
Maintenance & Adjustments4-1
Safe Servicing Practices4-1Service Introduction4-1Torque Values4-1Tires4-1Transmissions4-1Mower Blades4-1

Seat Adjustment	4-3
Steering Control Lever Adjustment	4-4
Maintenance Locator Chart	4-6
Maintenance Record	4-7
Troubleshooting	5-1
Storage	6-1

# **GENERAL INFORMATION**

This manual applies to the following Hustler<sup>®</sup> Turf Equipment equipment lines:

#### Hustler<sup>®</sup> Zevo™

#### To the New Owner

Hustler<sup>®</sup> Zevo<sup>™</sup> mower owners and operators **must read** this manual carefully. It contains operation and maintenance information that will help you achieve years of dependable service.

The **owner's responsibilities** include, but are not limited to, making certain that the operators and mechanics:

- read and understand the mower's operator manual and all decals before operating this machine.
- are qualified and physically able individuals, properly trained in the operation and maintenance of this equipment. Before they are allowed to operate or maintain this machine, they **must** be familiar with its safe operation, operator controls, and decals.
- know they are responsible for their own safety as well as the safety of other persons within the vicinity.
   Remember, the operator is responsible for accidents or hazards occurring to other people or their property.

**IMPORTANT:** As the owner/operator you can prevent accidents. You are responsible for accidents or injuries occurring to yourself, other people or property.

Never let children or untrained people operate or service the equipment. Local regulations may restrict the age of the operator.

For more detailed maintenance and adjustment information refer to the proper *General Service Manual* for your machine. Refer to the *Product Literature* section of this manual for information on how to obtain this manual.

#### Using this Manual

This manual contains general operation information as well as basic adjustment and maintenance information. Since operating conditions vary considerably, all conditions cannot be addressed individually. Through training and experience, operators should develop safe operating practices suitable to most conditions.

Directions used in this manual, for example RIGHT or LEFT, refer to directions when in the operator position and facing forward, unless otherwise stated.

Though current at the time of printing, photographs and illustrations shown may vary slightly from your mower due to subsequent production changes. Hustler<sup>®</sup> Turf Equipment, Inc. reserves the right to redesign and change the machine as deemed necessary, without notification. If a change has been

made to your machine which is not reflected in this manual, contact your Hustler<sup>®</sup> Dealer for current information.

#### **Warranty Registration**

To activate your warranty policy the mower **must** be registered, by your Dealer, with the Manufacturer of Hustler<sup>®</sup> Turf Equipment within **ten (10) days** following the date of purchase. It is recommended that you contact your Dealer to make sure the mower is registered.

**IMPORTANT:** The mower and any attachment that displays a model and serial identification number plate **must** be registered with Excel Industries, Inc., manufacturer of Hustler® Turf Equipment, Inc ("Manufacturer").

**IMPORTANT:** Any unauthorized modification, alteration, or use of non-approved attachments voids the warranty and releases Manufacturer from any liability arising from subsequent use of this equipment. **Do not** use or operate any attachment not approved by Hustler® Turf Equipment, Inc.

**IMPORTANT:** Damage caused by unauthorized replacement parts is not covered by this warranty. Manufacturer expressly excludes liability for defects or damage caused by such 'unauthorized' articles or service.

#### **Model and Serial Number**

Mower model and serial numbers are found on the serial identification plate, located below the left fender.

These numbers are required when the unit is registered with Hustler<sup>®</sup> Turf Equipment. They will also assure you of the correct service parts when replacement becomes necessary.

#### Parts and Service

Use original Hustler<sup>®</sup> replacement parts, or parts that are equivalent in overall performance, that are available from your local Hustler<sup>®</sup> Dealer. For prompt, efficient service, always provide the following information when ordering parts:

- **1.** Correct part description.
- 2. Correct part number.
- **3.** Correct model number.
- **4.** Correct serial number.

All arrangements for warranty repair and service must be handled through an authorized Hustler<sup>®</sup> Dealer.

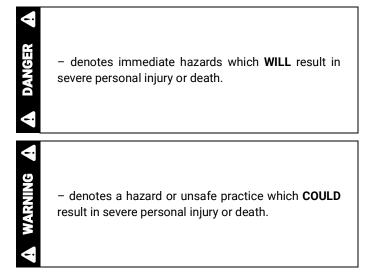
#### **Product Literature**

If you would like to view or print a copy of the product manuals (Operator's Manual, Parts Manual, or General Service Manual) for these mowers go online to www.hustlerturf.com.

# SAFETY PRECAUTIONS



This safety alert symbol is used to call attention to a message intended to provide a reasonable degree of **PERSONAL SAFETY** for operators and other persons during the normal operation and servicing of this equipment.



This manual uses two other words to highlight information:

- **A. IMPORTANT** calls attention to special mechanical information.
- **B. NOTE** emphasizes general information worthy of special attention.

The owner's responsibilities include, but are not limited to,

- making certain that the operators and mechanics read and understand this manual and all decals before operating this machine.
- making certain that before the operators and mechanics are allowed to operate or maintain this machine, they **must** be familiar with its safe operation, operator controls, and decals.
- ensuring that the operators and mechanics know they are responsible for their own safety as well as the safety of other persons within the vicinity. **Remember**, the operator is responsible for accidents or hazards occurring to other people or their property.

Improper use, adjustment, or maintenance by the operator, mechanic or owner can result in injury or death. Reduce the potential for injuries by following these safety instructions. Pay close attention to the safety alert symbol " $\blacktriangle$ " and the instructions that follow it. Failure to comply with these instructions may result in personal injury or death.

Incorrect usage of this equipment may result in severe injury or death. Personnel operating and maintaining it should be trained in its proper use. They should read this manual completely and thoroughly before attempting to set-up, operate, adjust, or service this equipment.

#### **Safe Operating Practices**

This product is capable of amputating hands and feet and throwing objects. Always follow all safety instructions to avoid serious injury or death.

▲ Never allow persons to operate this mower without proper instruction or allow children to operate the mower. Allow only responsible adults who are familiar with these instructions to operate this mower.

#### **Safe Operation**

- ▲ Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by the manufacturer.
  - Do not use any unauthorized attachment or modify the mower.
  - Follow the manufacturer's recommendation for wheel weights or counterweights.
  - If any attachment or additional weight is mounted on the rear of the unit, any rapid movement of the control levers in either direction could result in a reaction of the mower that can cause serious injury.
- ▲ Always be alert and inspect area to be mowed for hazards such as rocks, metal objects and other debris which may be thrown or entangled by mower blades. Remove these objects before mowing. Watch out for holes or deep depressions.
- ▲ Always operate mower in daylight or with adequate working lights.
- ▲ Never operate the mower when there is a risk for lightning.

#### **Personal Safety**

- ▲ Always wear long pants and safety shoes with slipresistant soles when operating this mower.
  - Do not wear sandals, tennis shoes, sneakers, shorts or any type of loose fitting clothing as they may get tangled in moving parts.
  - Do not wear a towel from the waist, or use a towel as a headband or neck wrap.
  - Long hair or jewelry may get tangled in moving parts.
- ▲ Always wear adequate ear protection, such as earplugs. Prolonged exposure to loud noise can cause impairment or loss of hearing.

- Do not wear radios or music headphones while operating this mower. Safe operation requires your full attention.
- ▲ Always wear safety goggles or safety glasses with side shields when operating this mower.
- ▲ Do not operate the mower if you are fatigued, sick or while under the influence of alcohol or drugs, if you are pregnant or under 18 years old.
- ▲ Poor posture or operating the mower for extended periods of time may lead to fatigue or injury, resulting in loss of mower control. Occasionally, stop the mower and get off the seat to stretch and relax.
- ▲ Data indicates that operators aged 60 years and above are involved in a large percentage of riding mowerrelated injuries. These operators should evaluate their ability to operate the mower safely enough to protect themselves and others from serious injury.

#### Operation

- ▲ Never leave a running mower unattended. Before leaving the operator's seat for any reason, including emptying the catcher or unclogging the chute:
  - · Always stop on level ground.
  - Disengage the deck clutch.
  - Place the steering control levers in the neutral position.
  - · Set the park brake.
  - · Remove the ignition key.
- ▲ Always inspect mower for damage after striking a foreign object. If damage is found, repair mower immediately.
- ▲ Always remain seated while operating the mower. Only turn the key switch to ON from the operator's position.
- Turn off the mower blades when not mowing.
- ▲ Always keep safety shields and covers in place, except for servicing.
- ▲ Never operate the mower deck with the discharge chute damaged, altered, removed, or in the raised position, except when the entire grass catcher attachment or mulching system is being used.
- ▲ Always keep clear of the mower blades and attachments during their operation.
  - Never put hands or feet under any part of the mower while it is running.
- ▲ Turn the key switch to OFF before removing the grass catcher or unclogging the discharge chute. Never clear the discharge chute with key switch in the ON Position. Be sure the blades have stopped before cleaning. Use a stick to clear a plugged discharge area. Never use your hand!
- ▲ Follow daily and weekly checklists, making sure bolts are tightened.

- ▲ Clean flammable material from mower. Prevent fires by keeping the battery compartment, top of the deck, and operator's station clean of accumulated trash, grass clippings, and other debris.
- ▲ Allow the mower to cool in a well ventilated area before storing inside a building or other enclosure.
- ▲ Rapid movement of the steering control levers in either direction could result in a reaction of the mower that can cause serious injury.
  - Never push forward suddenly on your steering control levers while the mower is in rearward motion because mower may tip backwards.
  - Never pull back suddenly on your steering control levers while the mower is in forward motion.
- ▲ Always be aware of what is behind the mower before backing up. Never mow in reverse. Always look down and behind before and while backing up.
  - If mowing in reverse is unavoidable, push forward slowly on the steering control levers and avoid sudden movement.
- Slow down before turning.
- ▲ Never attempt high speed maneuvering, especially in crowded or congested areas.
- ▲ Always maintain a safe distance from people and pets when mowing. Always stop mower and turn off blade if someone enters the area.
- ▲ Never carry passengers.
- ▲ Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Always disengage the mower blades and wait for them to stop before crossing gravel drives, walks or roads.
- ▲ Always observe traffic laws while driving mower from one location to another. Watch for traffic when operating near or crossing roadways.
  - Use care when approaching blind corners, shrubs, trees, or other objects that may obscure your vision.
- ▲ Do not tow the machine. Move it by hand or use a winch to load on a trailer for transporting. When transporting on another vehicle, the mower should be facing forward and it must be secured.
- ▲ Secure frame to transport vehicle with at least two straps, chains, cables, or ropes. Never secure unit from rods or linkages to vehicle, otherwise damage could occur

#### Using a Ramp

▲ Exercise extreme caution when loading and unloading a mower onto a truck or trailer with a ramp.

• Never operate a poorly maintained mower.

- ▲ Use only a single, full width ramp; do not use individual ramps for each side of the unit. Having a full width ramp provides a surface for the mower frame to contact if the unit starts to tip backwards. It also reduces the risk of a wheel rolling off the ramp and the mower tipping over.
- ▲ Do not exceed a 15 degree angle between the ramp and the ground or between the ramp and the trailer or truck.
- Avoid sudden acceleration when on a ramp.

#### **Slope Operation**

Slopes are a major factor in loss-of-control and tip-over accidents, which can result in severe injury or death. All slopes require extra caution. If you cannot back the mower up the slope or if you feel uneasy on the slope; do not mow it. REMINDER: Only operate on slopes of 15 degrees or less.

- ▲ Use extreme caution when operating on slopes.
  - Be extremely careful changing directions on a slope. Slow down.
  - Do not operate where the mower could slip or tip.
  - · Turn slowly
  - · Turn on the most level part of the slope
  - To maximize traction, it is better to turn the front of the mower uphill, rather than downhill. If drive tires lose traction, steering control is lost which could cause serious injury or death.
  - If it becomes necessary to turn downhill, turn slowly and gradually, if possible.
- ▲ Watch for holes, ruts, bumps, rocks or other hidden objects. Uneven terrain could overturn the mower. Tall grass can hide obstacles.
- ▲ Remove obstacles such as rocks, tree limbs, etc.
- ▲ Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction.
- ▲ Avoid starting and stopping on a slope. If tires lose traction, disengage the mower blades and proceed slowly straight down the slope.
- ▲ Do not operate on slopes above hazards.
- ▲ Operate a safe distance (minimum of 10 feet) away from drop-offs, retaining walls, drainage ditches, embankments, water, and other types of hazards to avoid a wheel dropping over the edge or to avoid the ground from breaking away. This will reduce the risk of the mower suddenly rolling over causing serious injury or death.
- ▲ Use a walk behind, push mower or hand-held trimmer on slopes and near drop-offs, retaining walls, drainage ditches, embankments and water to avoid mower rollover and serious injury or death.
- ▲ Do not mow on wet grass. Slippery conditions reduce traction which could cause sliding and loss of steering control.

- ▲ Do not tow on slopes. The weight of the towed equipment may cause loss of traction and loss of steering control.
- ▲ Do not try to stabilize the mower by putting your foot on the ground.
- ▲ If the mower's tires lose traction when operating on slopes, disengage the blades, place the control levers in the neutral position, set the park brake, remove the key, and get help.
- ▲ Never make sudden starts, stops, turns, or reverse direction, especially when maneuvering on slopes. The steering is designed for sensitive response. Rapid movement of the control levers in either direction could result in a reaction of the mower that can cause serious injury.
- ▲ Never stop suddenly while backing down slopes. This action may result in a reaction of the mower that can cause serious physical injury.
- ▲ The Hustler® Zevo<sup>™</sup> mower is capable of operating horizontally (traverse) on moderately steep slopes. When operating on slopes up to 15 degrees, be aware of any conditions that may cause the mower drive tires to lose traction resulting in a possible loss of control of the mower. An operator should not operate on a slope until he is thoroughly familiar with the equipment.

#### Do not operate on slopes greater than 15 degrees.

Refer to the *Slope Guide*, when determining the degree of slope to be mowed.

It is strongly recommended that the operator drive the mower off of the slope, using extreme caution, if any sign of loss of traction is detected. Wait until the condition that caused the problem is resolved before attempting to operate on the slope again.

Terrain conditions can affect traction resulting in possible loss of control of the mower. Some of the conditions to be aware of are:

- Wet terrain
- Depressions in the ground; i.e. holes, ruts, washouts
- · Mounds of dirt
- · Soil type; i.e. sand, loose dirt, gravel, clay
- · Grass type, density, and height
- · Extremely dry conditions of grass
- Tire pressure

The attachments mounted to the mower will also affect the way it handles on a slope. Be aware that each attachment's characteristics vary.

Another consideration to safe mowing on slopes is to be aware of what is located at the bottom of the slope. Extreme caution should be used when there is a hazard located at the bottom of the slope. Some examples are:

· Water; i.e. lake, river

- · Cliffs, retaining walls
- Roads, highways
- Buildings
- Rocks

These are just a few examples of situations when caution must be used when operating on a slope. There are many other possibilities too numerous to mention. Just remember to always exercise extreme caution when operating on any slope.

#### Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the mower and the mowing activity. Never assume that children will remain where you last saw them.

- Never leave the mower unattended with the key in the switch, especially with children present.
- ▲ Children or bystanders may be injured if they attempt to move or to operate the mower while it is unattended. Always disengage the deck clutch, place the control levers in neutral position, set the park brake, and remove the key when leaving the operator's seat.
- ▲ Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
- ▲ Be alert and turn the mower off if children enter the area.
- Before and while backing, look behind and down for small children.
- ▲ Never carry children, even with the blades off. They may fall off and be seriously injured or interfere with safe mower operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the mower.
- ▲ Never allow children to operate the mower.
- ▲ Never allow children or others in or on towed equipment.
- ▲ Use care when approaching blind corners, shrubs, trees, the end of a fence or other objects that may obscure vision.

#### **Service Precautions**

- ▲ Unless specifically required, **DO NOT** leave the battery connected when servicing or making adjustments to the mower.
  - Park the mower on level ground.
  - Disengage the deck clutch.
  - Place the steering control levers in the neutral position.
  - Lower the deck.
  - Remove the ignition key.

- Disconnect the battery.
- Wait for all movement to stop before adjusting, cleaning or repairing.
- Repairs or maintenance requiring battery power should be performed by trained maintenance personnel only.
- Read and observe all safety warnings in this manual.
- Before working on or under the deck, make sure the battery is disconnected.
- ▲ Use a stick or similar instrument to clean under the mower making sure that no part of the body, especially arms and hands are under the mower.
- Always wear adequate eye protection when:
  - servicing the battery.
  - grinding mower blades and removing accumulated debris.
- ▲ Never attempt to make any adjustments or repairs to the mower drive system, mower deck or any attachment while the battery is connected. Repairs or maintenance requiring battery power should be performed by trained maintenance personnel only.
- Never work under the machine or attachment unless it is safely supported with jack stands.
  - Make sure machine is secure when it is raised and placed on the jack stands.
  - The jack stands should not allow the machine to move when the drive wheels are rotating.
  - Use only certified jack stands. Use only appropriate jack stands, with a minimum weight rating of 2000 pounds (907 kg) to block the unit up.
  - Use in pairs only.
  - Follow the instructions supplied with the jack stands.
- ▲ Exercise caution when working with any of the deck lift components.
- ▲ Do not touch hot or charged parts of machine.
- ▲ Keep nuts and bolts tight, especially the blade attachment bolts. Keep equipment in good working condition.
- ▲ Never tamper with safety devices. Check their proper operation regularly.
- ▲ Grass collection system components are subject to wear, damage and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- ▲ Exercise caution when working under the deck as the mower blades are extremely sharp. Wrap the blade(s) or wear gloves and use extra caution when servicing them.

- ▲ Use original Hustler<sup>®</sup> replacement parts, or parts that are equivalent in overall performance, that are available from your local Hustler<sup>®</sup> Dealer.
  - The mower may not comply with the appropriate safety standards if aftermarket parts, accessories, or attachments are used.

#### Mower Blade Maintenance Precautions

- Never attempt to straighten a bent blade by heating, or weld a cracked or broken blade as the blade may break and cause serious injury. Replace worn or damaged blades.
- ▲ Never work with blades while battery is connected.
- ▲ Always wear adequate eye protection when grinding mower blades.
- ▲ Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves and use extra caution when servicing them.

#### **Battery Service Precautions**

- ▲ 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.
- ▲ Charge batteries in a well-ventilated open area, away from sparks and flames. Wear protective clothing and use insulated tools.
  - Do not allow open flame near the battery when charging.
- ▲ Shorts caused by battery terminals or metal tools touching metal mower components can cause sparks. Sparks can cause personal injury.
  - Prevent the battery terminals from touching any metal mower parts when removing or installing the battery.
  - Do not allow metal tools to short between the battery terminals and/or metal mower parts.
- ▲ Incorrect battery cable routing could cause damage to the mower and battery cables. This can cause sparks which can cause personal injury.

#### **Safety and Instructions Decals**

The decals are designed to give the operator and mechanic brief daily operational and service information. Use these

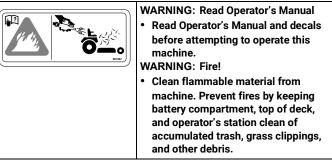
decals as an extension of this manual. Do not remove or destroy the decals. Replace unreadable or missing decals.

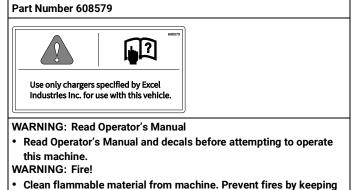
It is the **owner's responsibility** to make sure that the operators and mechanics read and understand all decals before operating this machine.

Specific safety warning decals are located on the equipment near the immediate areas of potential hazards. Do not remove or obliterate these decals. Replace them if they become non-readable.

The following illustrations show the safety decals that are located on the mower. A brief explanation is shown to help the operator understand the decal's meaning.

Part Number 608578





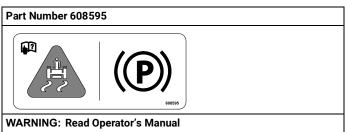
 Clean flammable material from machine. Prevent fires by keeping battery compartment, top of deck, and operator's station clean of accumulated trash, grass clippings, and other debris.

#### Part Number 608576



#### WARNING: Read Operator's Manual

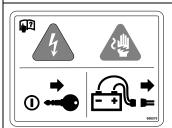
- Read Operator's Manual and decals before attempting to operate this machine
- WARNING: Thrown objects!
- Always maintain a safe distance from people and pets when mowing.
- Always stop machine if someone enters the area.
- Inspect area to be mowed for hazards such as rocks, metal objects and other debris which may be thrown or entangled by mower blades. Remove these objects before mowing.
- Keep shields and covers in place while machine is in operation.
- Remove key and disconnect battery before attempting to clear discharge, inspect or service deck or blades.



- Read Operator's Manual and decals before attempting to operate this machine
- WARNING: Loss of Steering Control!
- If you lose steering control while operating the machine, activate the park brake and secure in the park brake position immediately. Inspect the machine and involve your dealer to resolve the problem before continuing to operate

Part Number 776476		
	Α.	Deck switch disengaged (OFF) position
	В.	Deck switch engaged (ON) position

#### Part Number 608575



#### WARNING: Read Operator's Manual

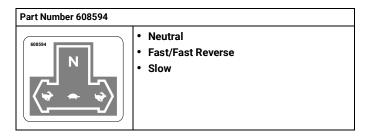
• Read Operator's Manual and decals before attempting to operate this machine.

#### DANGER: Electric Shock or Electrocution

- Before inspecting or servicing machine remove key and disconnect battery.
- Service should only be performed by a trained technician..

#### Part Number 608577





#### Part Number 601815

	DANGER: Battery Hazards!
	<ul> <li>Avoid skin contact with battery acid</li> </ul>
	Do not overfill battery.
	• Electrolyte may overflow and damage paint, wiring or structure. When cleaning the battery, use
	soap and water. Be careful not to get soap and water into the battery. Use soda mixed in water to
	clean corrosion off the terminals.
	<ul> <li>Always wear eye protection when checking the battery, acid can cause serious injury to skin and</li> </ul>
	eyes. If contact occurs, flush area with clean water and call physician immediately. Acid will also
	damage clothing.
601815	<ul> <li>Do not allow open flame near the battery when charging.</li> </ul>
	Hydrogen gas forms inside the battery. This gas is both toxic and flammable and may cause an
	explosion if exposed to flame. Always remove the negative ground first and replace it last.

#### Part Number 608550

А. В.

C.

D.

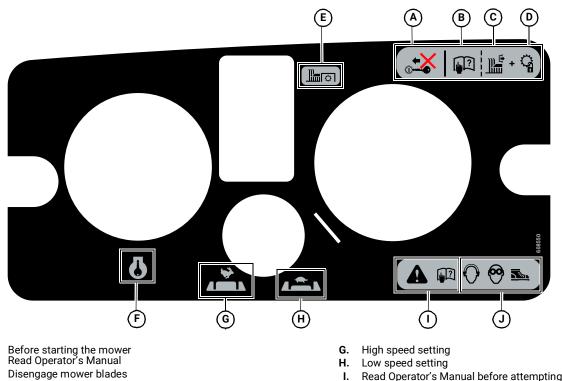
Ε.

F.

Place control levers in park brake position

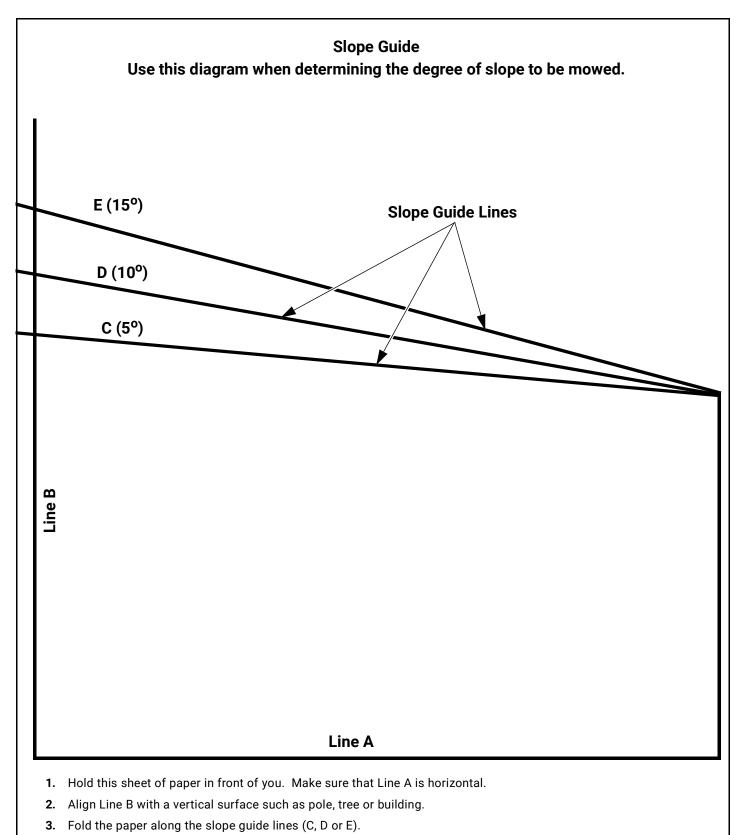
Mower blade engage/disengage switch

Ignition switch - insert key



- I. Read Operator's Manual before attempting to operate this machine
- J. Wear ear protection, eye protection and safety shoes when operating this equipment

#### Part Number 601981 WARNING: Read operator's Manual and decals before attempting to operate this machine. WARNING: Roll over! Operate a safe distance (minimum of 10 feet) away from drop-offs, retaining walls, drainage ditches, ÷jЩi embankments, water, and other types of hazards to avoid a wheel dropping over the edge or to avoid the ground from breaking away. WARNING: Back over! • Do not carry passengers. • Always stop machine if someone enters the area · Always be aware of what is behind the machne before backing up. Do not mow in reverse unless absolutely necessary. Always look down and behind 6 before and while backing up. WARNING: Roll over! Slow down before turning. • Do not operate on slopes greater than 15 degrees. • Keep all movement on slopes slow and gradual. Never make sudden changes in speed and direc- $\mathbf{X}$ tion. Do not operate on slopes above a retaining wall or • drop-off. WARNING: Ejection • Do not operate on slopes greater than 15 degrees. Ж . Keep all movement slow and gradual when going up or down slopes. Do not remove or modify stabilizer wheels or injury can result. **6**\* WARNING: Loss of traction/control on slopes! Ŧ • Shut off blades. ¢ Back slowly down the slope when loss of traction • occurs.



4. Align the closest slope guide line with the ground slope. This will give you a close estimation of the ground slope to be mowed.

#### **Safe Operating Practices**

Refer to the Safety Precautions section of this manual for operational and personal safety information.

#### **Control Panel**

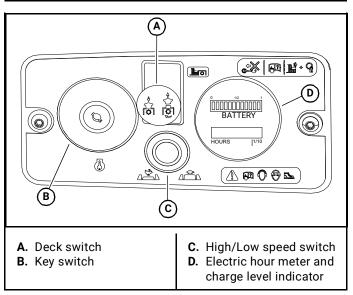


Figure 3-1

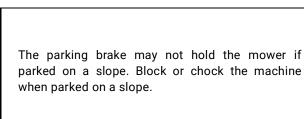
A. Deck switch (Figure 3-1) – this switch engages the deck. Pull the switch up to engage and push the switch down to disengage the clutch.

For additional clutch information refer to the *Mower Deck Operation* section of this manual.

- B. Ignition switch (Figure 3-1) a two position switch: "ON" and "OFF". With the key inserted, rotate it clockwise to the "ON" position;
- C. High/Low speed switch. (Figure 3-1) this switch increases and decreases the top speed of the mower. At high range the button is flush with control panel, at low range the button is recessed.
- D. Electronic hour meter and Charge level indicator (Figure 3-1) – registers 1/10 hour increments up to 9,999.9 total hours. It is connected to the key switch. It records the accumulative time while the ignition key is switched to the "ON" position. The lighted bar on the bar graph indicates the charge level.

#### Controls

A. Steering control levers (Figure 3-2 & Figure 3-3) – these levers control the mower's speed and direction.



**B.** Park brake pedal (Figure 3-4) - the park brake pedal is used to secure the mower in a stationery position when the steering control levers are in the neutral position. To engage park brake, firmly push pedal pad and toe pad forward until it latches to the striker plate.

To release park brake, firmly push on the pedal pad until and toe pad releases.

C. Deck lift pedal (Figure 3-5) – the deck lift pedal is used to raise or lower the deck. Push on the pedal to raise the deck, and then place the adjusting pin into the desired cutting height hole. Release the pedal. Push on the deck lift pedal to raise the deck when going over obstructions.

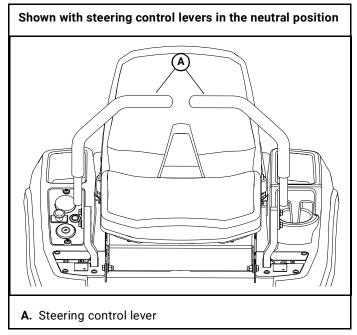


Figure 3-2

#### Safety Start Interlock System

The mower's safety start interlock system consists of the park brake switches, neutral lock switches, seat switch, and deck switch.

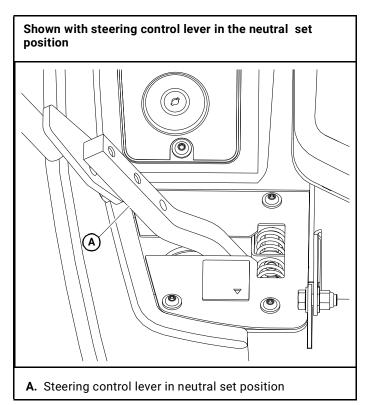


Figure 3-3

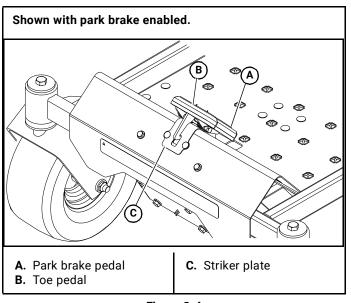


Figure 3-4

**IMPORTANT:** Repair this important safety feature immediately if it malfunctions.

The machine incorporates a separate seat switch which will stop the drive system and deck motors when the operator is unseated for any reason while the mower is operating. This

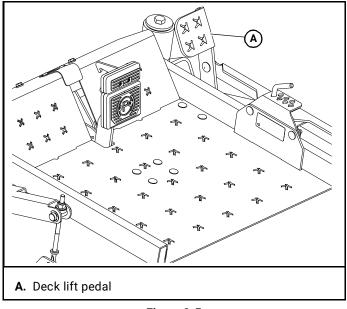


Figure 3-5

safety feature prevents mower runaway or accidental entanglement during operation.

Check the mower's safety start interlock system daily, prior to operation.

To inspect the system:

- 1. Sit on the seat when testing the seat switch.
- Turn on ignition switch to "ON" position, wait 3-5 seconds while the system charges. The hour meter and high/low switch will illuminate.
- **3.** Set both steering control levers in the neutral set position.
- 4. With the deck switch down and the steering control levers in the neutral set position, slowly rise off of the seat. The mower will emit a slow steady beep. The mower will not move.
- 5. With the deck switch up and/or the blades spinning slowing rise off of the seat. The blades should stop.
- 6. With the machine slowly driving forward on a flat surface, rise up off the seat. The mower should stop.
- 7. If the mower fails either of these tests, stop using the mower and contact your Hustler® dealer.

The safety interlock system should always function per steps 4, 5 and 6. If it does not function properly, correct it immediately. Do not operate machine without a properly functioning seat safety switch.

WARNING

#### **Driving the Mower**

A DANGER A

Never make sudden stops or reverse direction, especially when maneuvering on a slope. The steering is designed for sensitive response. Rapid movement of the control levers in either direction could result in a reaction of the mower that can cause serious injury.

After turning the key switch to the ON position and releasing the park brake, engage the steering control levers and steer as follows:

**To go forward,** push the steering control levers forward an equal distance. Figure 3-6

**To go in reverse**, pull the steering control levers rearward an equal distance. Figure 3-6

**To turn left,** move the right steering control lever farther forward from neutral than the left steering control lever.

**To turn right,** move the left steering control lever farther forward from neutral than the right steering control lever. Figure 3-6

**Zero radius turn,** move one steering control lever forward and the other steering control lever back of neutral. This allows the drive wheels to counter-rotate. Figure 3-6

To stop or decrease speed, move steering control levers to neutral. When going forward pull back gently on steering control levers. When going in reverse push forward gently on steering control levers.

**For emergency stops,** when traveling forward or rearward, depress and latch the park brake.

A DANGER

When moving in the rearward direction push forward gently on steering control levers and avoid sudden movement. Any sudden movement could cause the front of the mower to come off of the ground resulting in possible loss of control, causing serious injury or death.

#### To make a three point turn to the right:

- 1. Move the left steering control lever farther forward from neutral than the right steering control lever and start the turn. Figure 3-7
- Next, pull back on the steering control levers until they pass neutral and the machine starts to go rearward. Figure 3-7
- **3.** Pull the right steering control lever farther rearward from neutral than the left steering control lever until the rear of the machine pivots around. Figure 3-7
- Then, push the steering control levers forward until they both pass neutral and the machine starts to go forward. Figure 3-7
- **5.** Push the left steering control lever farther forward from neutral than the right steering control lever and finish the turn. Figure 3-7

# A WARNING A

Always be aware of what is behind the machine before backing up. Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing up.

**To increase speed,** increase the steering control lever's distance from neutral. The farther forward the steering control levers are from neutral, the faster the mower will travel forward. The farther back the steering control levers are from neutral, the faster the mower will go in reverse.

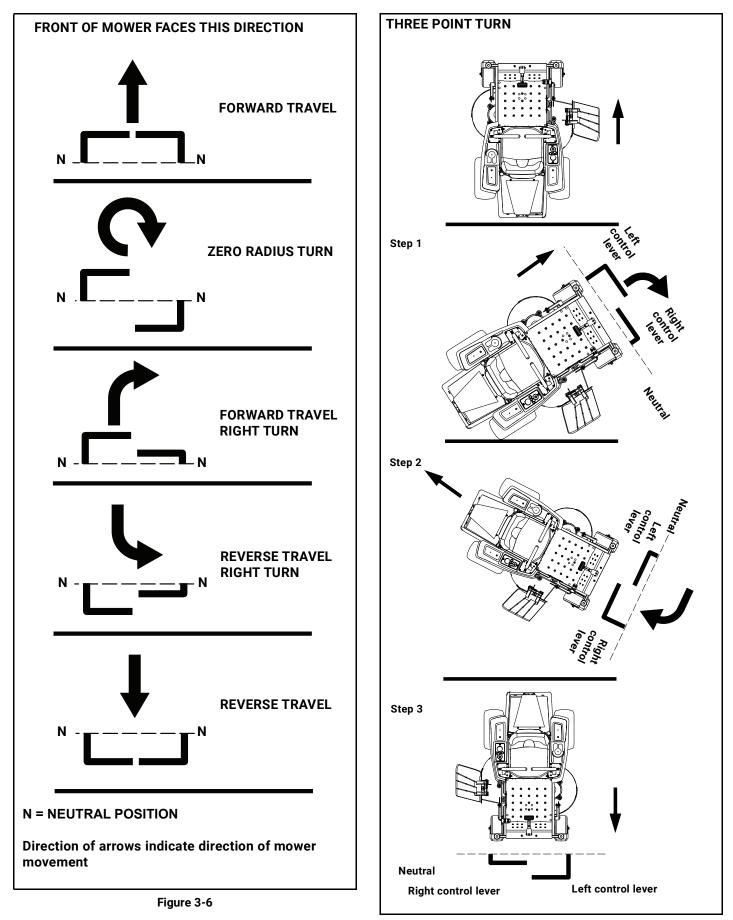


Figure 3-7

#### **Operating Suggestions**

An inexperienced operator should not mow on slopes or on uneven terrain.

Before attempting normal speed operation an inexperienced operator should:

- be thoroughly familiar with the proper use and operation of the equipment.
- read the manual completely and thoroughly.
- · have attempted slow moving maneuvers.

If you lose steering control while operating the machine, depress the park brake immediately. Inspect the machine and involve your Hustler<sup>®</sup> Dealer to resolve the problem before continuing to operate.

The unit's steering control levers are very responsive: Easy does it! For smooth operation, move the levers slowly, avoiding sudden movement. Skill and ease of operation come with practice and experience. The machine can spin very rapidly. Use caution when making turns and slow down before making sharp turns.

Inexperienced operators may have a tendency to oversteer and lose control. Practice slow maneuvers in low speed mode on a flat open area before attempting normal speed operation.

A WARNING A

Sharp depressions or raised obstacles (such as gutters or curbs) should not be directly approached at high speed in an attempt to "jump" them as the operator could be thrown from the equipment. Approach at a slow speed and angle one drive wheel at the obstruction. Continue at an angle until the wheel clears and then pivot the opposite wheel around.

When turning on soft wet turf, keep both wheels rolling either forward or backward. Pivoting on one stopped wheel can damage turf, especially when mowing.

Keep blades sharp. Many problems with incorrect cutting patterns are due to dull blades or blades which have been sharpened incorrectly. Information on sharpening blades is listed in this manual's maintenance section.

Never	work	with	blades	while	the	battery	is
connec	cted.						

Always disconnect the battery.

Block the mower up when you work under it.

Wear gloves when handling blades.

Always check for blade damage if the mower strikes a rock, branch or other foreign object during mowing! **Direct grass discharge to the right,** away from the unmowed area. Generally, this means using a pattern of **left turns.** Avoid throwing grass discharge onto unmowed area. Mowing clippings puts an unnecessary load on the unit and reduces mowing efficiency.

When mowing a lawn for the first time cut grass slightly longer than normal to avoid scalping uneven terrain. When cutting grass taller than six inches, you may want to mow the lawn twice to achieve a better quality of cut.

During normal mowing cut only about 1/3 of the grass blade.

**Alternate the mowing direction** to keep the grass growing straight and for better dispersion of the clippings.

**Remember, grass grows at different rates** at different times of the year. Mow more often in the early spring to maintain the same cutting height. As the growth rate slows in midsummer, mow less frequently. If you cannot mow at a regular interval, mow at a high cutting height; then mow again two days later at a lower cutting height.

**Raise the cutting height of the mower** if the cutting width of the mower is wider than the previous mower. This ensures that uneven turf is not cut too short.

**Raise the cutting height of the mower** if the grass is slightly taller than normal or if it contains a high degree of moisture. Then mow it again with the cutting height set lower.

If the machine's forward motion must be stopped while mowing, a clump of grass clippings may drop onto your lawn. To avoid this, move onto a previously cut area with the blades engaged.

Never direct the discharge of material from the mower deck toward bystanders.
 Never operate the mower deck with the discharge chute damaged, altered, removed, or in the raised position, except when the entire grass catcher attachment or mulching system is being used. Figure 3-8

DANGER

Never attempt to make any adjustments to the mower deck while the battery is connected. Mower blades cannot be seen and are located very close to the deck housing. Fingers and toes can be cut off instantly.

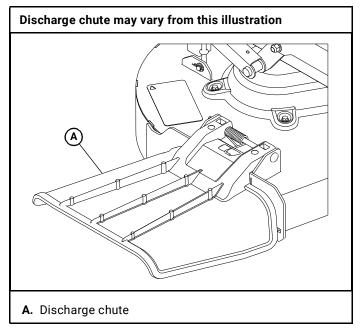


Figure 3-8

#### **Mower Deck Operation**

Before beginning operation, check to make sure the deck switch is engaging and disengaging the blades properly.

> Make sure that the area around and under the deck is clear and that there are no bystanders in the immediate area before proceeding.

#### To check the deck switch:

- 1. While seated in the operator position, turn the key switch on and engage the deck switch.
- 2. With the deck switch up and the key switch on, listen to confirm that the mower blades are rotating.
- 3. Now, push the deck switch down, listen to confirm that the blades have stopped rotating.
- 4. If the mower blades continue to rotate with the deck switch down, discontinue operation immediately and contact your Hustler® Dealer.

#### **Deck Cutting Height Adjustment**

Deck cutting height is adjustable in 1/2 inch increments.

When the adjusting pin is in the "1.5 inch" slot, the deck mowing height is set at its lowest mowing position. When the pin is located in the "4.5 inch" slot, the deck height is at its highest mowing position or transport mode.

To adjust the cutting height, step on the deck lift pedal and insert the adjusting pin into the desired cutting height hole. Release the deck lift pedal. Figure 3-9

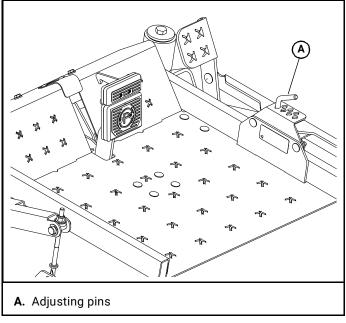


Figure 3-9

#### **Battery Charger**

Charge is complete when the light indicator is solid green. A flashing green light indicates the batteries are charging. Never charge battery for a short time to finish mower, doing so can reduce battery life. For more information regarding the charger refer the Battery Charger Operator's manual.

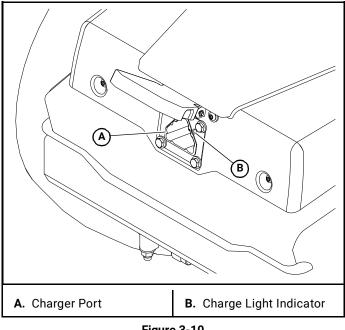


Figure 3-10

# **MAINTENANCE & ADJUSTMENTS**

#### **Safe Servicing Practices**

Refer to the Safety Precautions section of this manual for more service safety information.

#### Service Introduction

Regular maintenance is the best prevention for costly downtime or expensive, premature repair. The following pages contain suggested maintenance information and schedules which the operator should follow on a routine basis. For more detailed information order the correct Parts Manual and General Service Manual for your unit. Refer to the *Product Literature* section of this manual for more information.

Remain alert for unusual noises, which could signal a problem. Visually inspect the machine for any abnormal wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting the problem as quickly as possible is the best insurance.

Clear away heavy build-up of debris and dirt, especially in the battery and drive motor component areas.

**Inspect mower daily** for grass clippings and wire or string tangles. The underside of the mower deck will collect a buildup of grass clippings and dirt, especially when grass is wet or has high moisture content. This build-up will harden, restricting blade and air movement which will probably result in a poorer quality of cutting. Therefore it should be removed routinely. To do this it will be necessary to raise and block the deck using jack stands or blocks in the full up position. Disconnect the battery, scrape the build-up off from underneath.

Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult your Hustler<sup>®</sup> service center when assistance is needed.

#### Torque Values

Particular attention must be given to tightening the drive wheel lug nuts and blade bolts. Failure to correctly torque these items may result in the loss of a wheel or blade, which can cause serious damage or personal injury.

#### Torque values are given below:

	ft-lbs	N∙m
Drive wheel axle bolt	17	23
Blade bottom bolt	48	65

**Drive wheel axle bolt only -** It is recommended that these be checked after the first 2 hours of operation, initially, every 40 hours and following removal for repair or replacement.

For all other torques refer to the mower's *General Service Manual* for standard torque chart. See the *Product Literature* section for ordering information.

#### Tires

It is important for level mowing that the tires have the same amount of air pressure. The recommended pressures are:

Drive wheels	8–12 psi (55–83 KPa)
Front wheels	8–12 psi (55–83 KPa)

**Only pneumatic tires are approved for use on this mower.** Warranty claims will be denied on any mower equipped with non-pneumatic tires.

#### Transmissions

The transmissions are sealed for life and do not require any scheduled maintenance.

When washing the mower, direct the spray away (especially if using a power washer) from the transaxle's seals to prevent water intrusion and ensure component performance.

#### **Mower Blades**

#### **Mower Blade Maintenance**

IMPORTANT: Refer to the Safety section of this manual for blade handling safety information.

Refer to the *Mower Blade Replacement* section for blade removal and installation.

A WARNING A

Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves and use extra caution when servicing them.

Check the mower blades daily, they are the key to power efficiency and well groomed turf. Keep the blades sharp. A dull blade will tear rather than cut the grass, leaving a brown ragged top on the grass within a few hours. A dull blade also requires more power to cut.

Replace any blade which is bent, cracked or broken.

#### Always check for blade damage:

- if mower strikes a rock, branch or other foreign object during mowing!
- or if an abnormal vibration occurs while operating.

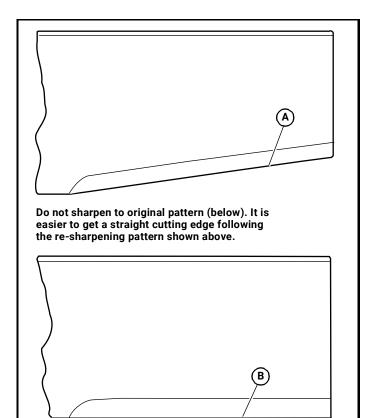
Make all necessary repairs before resuming operation.

Sharpen the blades following the pattern shown. Touch-up sharpening can be done with a file. Figure 4-1

After grinding the blades, check for balance. Blade balancing can be done by placing the blade on an inverted line punch or 5/8" bolt. A commercial balancing tool is also available through most hardware supply stores.

The blade should not lean or tilt. When spinning the blade slowly it should not wobble. Balance the blade before reinstalling.

Lay the blade on a flat surface and check for distortion. Replace any distorted blade. Figure 4-2 & Figure 4-3



- A. Re-sharpening pattern
- B. Original edge

Figure 4-1

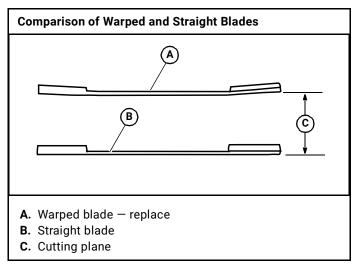


Figure 4-2

End view of blades, comparing twisted and straightened blades.

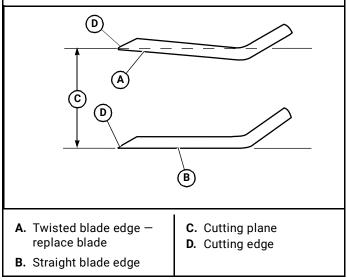
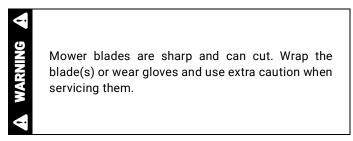


Figure 4-3

#### Mower Blade Replacement

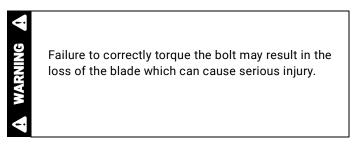
IMPORTANT: Refer to the Safety section of this manual for blade handling safety information.



A 5/8" wrench is required to remove the 7/16" cap screw holding the blade to the blade motor.

**NOTE:** A blade holding tool (part number 381442) is available from Hustler<sup>®</sup> Turf Equipment. It is designed to prevent the blades from rotating when they are being removed or installed on the spindle. Contact your Hustler<sup>®</sup> Dealer for more information.

Do not re-use bolts which have stripped, worn or undercut threads. Torque bolts on motor to 48 ft-lbs (65.14 N·m) when installing blades.



**IMPORTANT:** The blade sail (curved part) must be pointing upward toward the inside of the deck to ensure proper cutting.

When mounting blades, rotate the blades after installation to ensure blade tips do not touch each other or sides of the mower.

#### Seat Adjustment

The seat on the Hustler  $^{\circledast}$  Zevo  $^{\scriptscriptstyle \mathsf{M}}$  mower can be adjusted forward and rearward.

- 1. Pivot the seat platform up and forward.
- 2. Loosen the four cap screws on the underneath side of the seat platform. Figure 4-4
- **3.** Position the seat where you have the best control of the machine and are the most comfortable.
- Tighten the cap screws. Torque to 7 ft-lbs (9 N·m) Figure 4-4

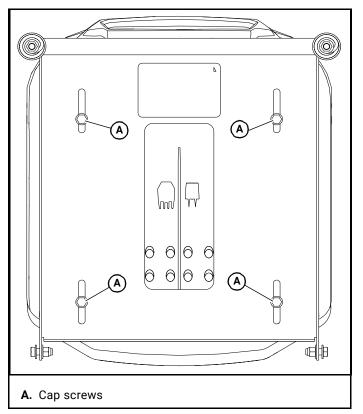


Figure 4-4

The steering control levers can be adjusted for operator comfort.

- **A.** To lower and raise the control levers, remove the cap screws. Slide the upper control lever up or down and align the holes in it with the holes in the lower lever. Install the cap screws and tighten. Figure 4-5
- **B.** To pivot the upper control levers forward or rearward, loosen the cap screws that attach the upper control lever to the lower lever. Then, pivot the upper control lever. Tighten the cap screws. Figure 4-5
- **C.** The steering control levers should be adjusted so that they align with each other when in the neutral position. You should also be able to pull the handles into the full reverse position while seated in the operator position. Figure 4-6

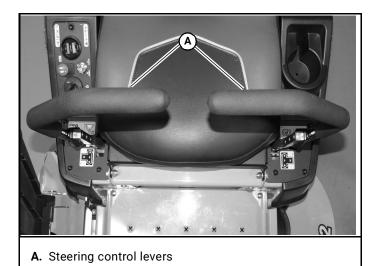


Figure 4-6

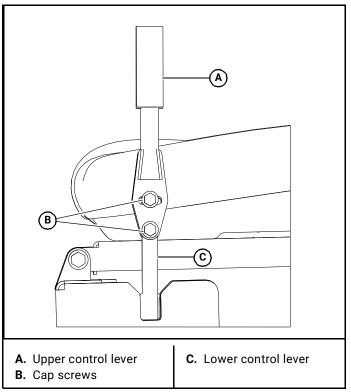


Figure 4-5

## Maintenance Schedule Refer to Figure 4-6 and Figure 4-7

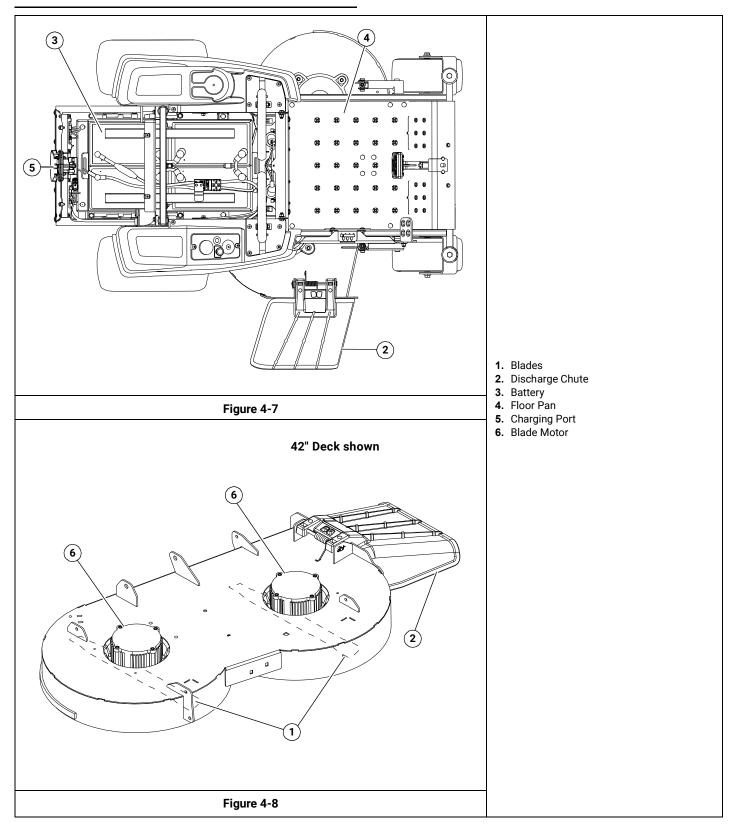
SERVICE AT INTERVALS INDICATED	WEEKLY OR 40 HOURS	* ANNUALLY OR 100 HOURS	
Verify safety start interlock system	Prior to e	each use	
Visually inspect unit for loose hardware and/or damaged parts	Prior to each use		
Visually inspect tires	Prior to each use		
Blades - sharpen & securely fastened	Prior to each use		
Discharge chute - securely in place & in lowest position	Prior to each use		
Check tire pressure with a gauge	Prior to each use		
Clean battery compartment	After each use		
Tighten wheel axle bolts (2)	Х		

#### NOTES:

1. Torque initially and after first 2 hours of operation.

\* After completing maintenance cycle (100 hours), repeat cycle.

## **Maintenance Locator Chart**



### **Maintenance Record**

Aaintenance Rec		Date:	Maintenance/Service Performed:
Date:	Maintenance/Service Performed:	Dealer:	
Dealer:			
		Hour Meter Reading:	-
Hour Meter Reading:	-	Date:	Maintenance/Service Performed:
Date:	Maintenance/Service Performed:	Dealer:	
Dealer:			
		Hour Meter Reading:	
Hour Meter Reading:		Date:	Maintenance/Service Performed:
Date:	Maintenance/Service Performed:	Dealer:	
Dealer:			
		Hour Meter Reading:	
Hour Meter Reading:		Date:	Maintenance/Service Performed:
Date:	Maintenance/Service Performed:	Dealer:	
Dealer:			
		Hour Meter Reading:	
Hour Meter Reading:		Date:	Maintenance/Service Performed:
Date:	Maintenance/Service Performed:	Dealer:	
Dealer:			
		Hour Meter Reading:	
Hour Meter Reading:			

# TROUBLESHOOTING

The majority of operating problems that occur with a system can be traced to improper adjustments or delayed service. A consistently applied preventative maintenance program, as outlined in the *Maintenance* section of this manual, will prevent many problems. The following chart is designed to help you locate a problem by suggesting probable causes and the recommended solutions.

SYMPTOMS	PROBABLE CAUSES	SUGGESTED REMEDIES	
Both traction motors don't run	Steering controllers not in neutral position	Place steering control levers in the neutral posi- tion, check neutral switches	
	Parking brake is set	Unlock parking brake.	
	Seat switch is not engaged	Operator MUST be in seat, check seat switch	
	Weak or Dead battery Pack	Check the electrical con- nections	
	Batteries disconnected or loose connections	check electrical connec- tions	
	Master in-line fuse (150 amp) is blown	replace fuse	
	For additional causes, contact	t your dealer	
Mower emitting beeping noise.	Leaving the seat with the key in the ON Position	Turn the key off, move steering controls to the out- ward position, push PTO	
	Steering Control levers being placed in neutral position prior to turning the key ON	deck switch down and release parking brake, then turn the key on to reboot the system.	
	Steering control levers being placed in neutral prior to system boot up		
	Steering control levers being placed in neutral with the park brake set and the key in the ON Position.		
	Steering levers are not in neutral set position		
One traction motor doesn't run	Motor controller connec- tions are disconnected or loose	check motor controller con- nections, replace motor controller	
	Steering sensor discon- nected or loose	check steering sensor con- nections, replace steering sensor	
	Traction component faulty	Contact your dealer	
Mower won't power on	Charger is plugged in	Unplug charger	
	Battery connections are loose or disconnected	check battery connections	
	Key switch is disconnected or loose connections	check contactor connections, replace contactor	
	Contactor connections are loose or disconnected	check contactor connections, replace contactor	
	Charging receptacle con- nections are loose or dis- connected	check interlock connec- tions, replace interlock	
	Battery power is low	charge battery pack	

SYMPTOMS	PROBABLE CAUSES	SUGGESTED REMEDIES
Both blade motors don't run	Deck switch connections are loose or disconnected	check deck switch connec- tions, replace deck switch
	Seat switch is not engaged	Operator MUST be in seat, check seat switch
	Weak or dead battery pack	Check battery gauge for flashing LED, recharge bat- tery pack using approve Hustler charger
	Batteries disconnected or loose connections	check electrical connec- tions
	Master -inline fuse (150 amp) is blown	replace fuse
	For additional causes	contact your dealer
One blade motor doesn't run	Motor controller connec- tions disconnected or loose	check motor controller con- nections, replace motor controller
	Blade motor to controller connection is loose or dis- connected	check motor to controller connection
	Blade motor component faulty	Contact your dealer
Mower creeps when steering control levers are in neutral	Steering needs to be calibrated	place steering control levers in neutral position. Power off mower, wait 30 seconds, power on mower
Mower circles or veers in one direction	Drive straight need sto be installed and set	See General Service Man- ual for installation instruc- tions
	Tires improperly inflated	Adjust air pressure to 8-12 psi (55-83 KPa)
	Transaxle component faulty	Contact your Dealer
Mower creeps when park- ing brake engaged	Parking brake switch is dis- connected or loose	check switch connections, replace parking brake switch
There is abnormal vibra- tion	Traction drive mounting bolts are loose	tighten traction drive mounting bolts
	The cutting blade(s) is/are bent or unbalanced	install new cutting blade(s)
	A blade mounting bolt is loose	tighten the blade mounting bolt
	Blade motor mount bolts are loose	tighten blade motor mount- ing blots
	Blade motor shaft is bent or motor is damaged	replace blade motor

SYMPTOMS	PROBABLE CAUSES	SUGGESTED REMEDIES
Uneven cutting height	The blade(s) are not sharp	Sharpen the blades
	A cutting blade(s) is/are bent	Install new cutting blade(s)
	The deck is not level	Level the deck per the Deck leveling section of the Gen- eral Service Manual
	The underside of the deck is dirty	Clean the underside of the deck
	Tires improperly inflated	Adjust air pressure to8 -12 psi ( 55–83 KPa)
	Blade motor shaft is bent or motor is damaged	replace blade motor

When storing the unit at the end of the mowing season, the mower and battery should have the following items serviced before storage.

If the mower has been stored for an extended period of time, follow the new season preparation steps before beginning operation.

#### General mower preparation for storage

**1.** Remove all grass, dirt, and trash from mower and cutting units.

**IMPORTANT:** Wash the machine with a mild detergent and water. Do not pressure wash the machine. Avoid excessive use of water, especially near the control panel and controllers.

- 2. Clean mower and deck and touch up all scrapes with touch-up paint.
- **3.** Check thoroughly for any worn or damaged parts that need replacing and order them from your dealer.
- **4.** Block mower up so weight is off tires. Check tire pressure and inflate to proper operating pressure.
- 5. Do not deflate tires.
- 6. Store mower in a clean, dry place.

#### Preparation of battery for storage

When storing the machine for long periods, it is recommended to leave the battery connected to the charger.

#### New season preparation

Before starting the mower following post season storage, the following service is required:

- 1. Clean mower, removing trash and dirt accumulation.
- **2.** Tighten any bolts that have loosened and make sure all hair pins, cotter pins and clevis pins are in place.
- **3.** Install all safety shields and review safety precautions listed in this manual.
- 4. Check and inflate tires to 8-12psi (55–83 KPa)

# INDEX

# PAGE

PAG	E
PAG	E

Battery Charger3	3-6
Battery Service Precautions2	2-5
Children2	<u>2</u> -4
Control Panel3	3-1
Controls	3-1
Deck Clutch Operation3	8-6
Deck Cutting Height Adjustment3	8-6
Driving the Mower3	3-3
General Mower Preparation for Storage6	<u>5</u> -1
Maintenance Locator Chart4	1-6
Maintenance Record4	<b>I-7</b>
Model and Serial Number1	-1
Mower Blade Maintenance4	<b>I</b> -1
Mower Blade Maintenance Precautions2	2-5
Mower Blade Replacement4	1-3
Mower Blades4	<b>I</b> -1
Mower Deck Operation3	8-6
New Season Preparation6	ò-1
Operating Suggestions	3-5
Operation2	2-2
Parts and Service1	-1

Personal Safety	2-1
Preparation of Battery for Storage	6-1
Product Literature	1-1
Safe Operating Practices	2-1, 3-1
Safe Operation	2-1
Safe Servicing Practices	4-1
Safety and Instructions Decals	2-5
Safety Start Interlock System	3-1
Seat Adjustment	4-3
Service Introduction	4-1
Service Precautions	2-4
Slope Guide	2-9
Slope Operation	2-3
Steering Control Lever Adjustment	4-3
Tires	4-1
To the New Owner	1-1
Torque Values	4-1
Using a Ramp	2-2
Using this Manual	1-1
Warranty Registration	1-1