



Zenith E

ARIENS

- (EN)** Operator's Manual
- (CZ)** Návod k obsluze
- (DE)** Betriebsanleitung
- (DK)** Instruktionsbog
- (ES)** Lea el Manual del operador
- (FI)** Käyttäjän käsikirja
- (FR)** Manuel de l'opérateur
- (IT)** Manuale d'uso
- (NL)** Gebruikershandleiding
- (NO)** Brukerhåndbok
- (PL)** Instrukcja obsługi
- (PT)** Manual do Operador
- (RU)** Руководство оператора
- (SK)** Návod na obsluhu
- (SV)** Instruktionsbok
- (TR)** Kullanıcı Kılavuzu

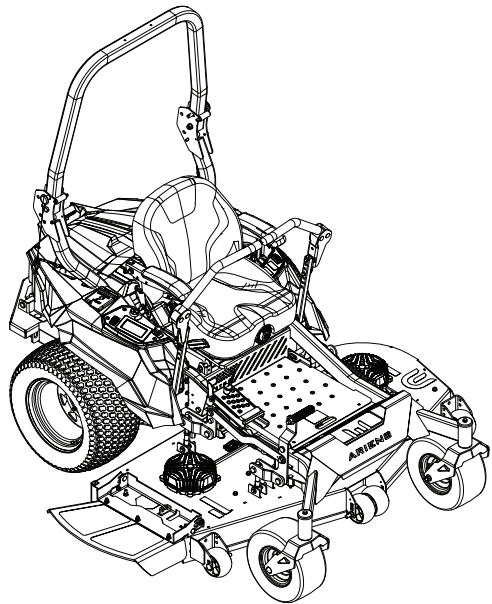
Models

997301 – Zenith E 60 CE
Side Discharge

(SN 000101 +)

997302 – Zenith E 60 CE
Rear Discharge

(SN 000101 +)



EC DECLARATION OF CONFORMITY ISSUED BY THE MANUFACTURER – ES PROHLÁSENÍ O SHODĚ, VYDANÉ VÝROBCEM – VOM HERSTELLER HERAUSGEGEBENE EG-KONFORMITÄTSERKLÄRUNG – OVERENSSTEMMELSECERTIFIKAT FOR MODELLER, UDSTEDT AF FABRIKANTEN – DECLARACION DE CONFORMIDAD CE EMITIDA POR EL FABRICANTE – TOOTJA VÄLJASTATUD EC-VASTAVUSDEKLARATSIOON – VALMISTAJAN ANTAMA EY-VAATIMUSTENMUKAISUUSVAKUUTUS – DÉCLARATION DE CONFORMITÉ CE ÉMISE PAR LE FABRICANT – EZ IZJAVA O SUKLADNOSTI KOJU DAJE PROIZVOĐAČ – DICHIARAZIONE DI CONFORMITÀ CE DEL PRODOTTO RILA SCIATA DAL PRODUTTORE – EK GAMINTOJO ATITIKTIES DEKLARACIJA – EK ATBILSTĪBAS DEKLARĀCIJA, KURU IZDOD RAŽOTĀJS – EG- CONFORMITEITSVERKLARING, UITGEGEVEN DOOR DE FABRIKANT – EF-SAMSVARSERKLÆRING FRA PRODUSENTEN – DEKLARACJA ZGODNOŚCI Z PRZEPISAMI EC WYDANA PRZEZ PRODUCENTA – CERTIFICADO DE CONFORMIDADE DO MODELO EMITIDO PELO FABRICANTE – СОСТАВЛЕННОЕ ПРОИЗВОДИТЕЛЕМ ЗАЯВЛЕНИЕ О СООТВЕТСТВИИ СТАНДАРТАМ И НОРМАМ ЕС – ES-IZJAVA O SKLADNOSTI, KI JO JE IZDAL PROIZVAJALEC – ES VYHLÁSENIE O ZHODE, VYDANÉ VÝROBCOM – EG-DEKLARATION OM ÖVERENSSTÄMMESE UTFÄRDAD AV TILLVERKAREN – ÜRETİCİ TARAFINDAN DÜZENLENEN EC UYGUNLUK BEYANI

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Type: Typ: Tipo: Type: Tipo: Tüüp: Tyyppi: Type: Tipo: Type: Tip: Type: Tips: Typ: Tipas: Tipo: Тип: Tip: Typ: Typ: Tip:	Riding Rotary Lawn Mower – Samojízdná Sekačka – Aufsitz-Sichelmäher – Havetraktor med roterende knive – Tractor cortacésped giratorio – Rooter-mururtraktor – Puutarhatrikotori Pyörivällä Leikkuuyksiköllä – Tondeuse à gazon autoportée rotative – Samohodna rotaciona kosilica za travu – Trattorino con unità di taglio rotativa – Savaeigé žolijapové – Braucošais rotējošais zāles plāvējs – Rijdende roterende grasmaaier – Plentraktör med rotorklipper – Samobiezna rotacyjna kosiarzka trawnikowa – Tractor cortador de relva – езда Косилка роторная – Sedežna vrtiljiva kosilnica – Jazdecké rotačná kosačka na trávu – Sitttrögräsklippare – Döner biçme makinesi sürme
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Trade Name: Obchodní název: Handelsbezeichnung: Firmenavn: Nombre comercial: Kaubamärk: Kauppanimi: Appellation commerciale: Trgováčki naziv: Nome commerciale: Prekės pavadinimas: Komerčiālais nosaukums: Handelsnaam: Handelsnavn: Nazwa handlowa: Nome da Marca: Название фирмы: Trgovsko ime: Názov výrobku: Handelsbeteckning: Ticaret Unvan:	Ariens
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Model, Model Name, Serial Number: Model, název modelu, výrobní číslo: Modell, Modellname und Seriennummer: Model, Modelnavn, Seriennummer: Modelo, Nombre, N° de Serie: Model, Model, Seerialnumber: Malli, mallin nimi, sarjanumero: Modèle, nom du modèle, numéro de série: Model, Naziv modela, Serijski broj: Modello, Nome modello, Numero di serie: Modelis, Modelio pavadinimas, Serijos numeris: Modelis, Modelja nosaukums, Sērijas numurs: Model, Model Naam, Volgnummer: Modell, modellnavn, seriennummer: Model, nazwa modelu, numer seryjny: Modelo, Nome do Modelo, Número de Série: Модель, наименование модели, серийный номер: Model, Ime modela, Serjska številka: Model, názov modelu, výrobné číslo: Modell, modellnavn, seriennummer: Model, Model Adı, Seri Numarası:	997301, Zenith E SD 000101+ 997302, Zenith E RD 000101+
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Cutting Width: Pracovní záběr: Schnittbreite: Klippebredde: Anchura de corte: Löikelaius: Leikkuuleveys: Largeur de coupe: Širina reza: Pjovimo plotis: Larghezza: Šešėjanas platumas: Maaibreedte: Atbilst: Klippebredde: Szerokość cięcia: Largura de corte: Ширина скашивания: Širna košnjė: Šírka kosenia: Klippbredde: Kesme Geniřliđi:	997301: 152 cm 997302: 152 cm
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Conforms to: Odpovídá normě: mit den Anforderungen der folgenden Richtlinien übereinstimmt: Er i overensstemmelse med: Cuple con: Vastab: Täyttää seuraavat vaatimukset: Est conforme à: U sukladnosti sa: E conforme a: Atitinka: Voldoet aan: Er i samsvar med: Jest zgodny z: De acordo com: Соответствует: v skladu z: Je v zhode s: Överensstämmer med: Uygundur:

2006/42/EC, 2014/30/EU, 2011/65/EU - 2015/863/EU, 2000/14/EC, Annex VI - 2005/88/EC, 2012/19/EU
 EN ISO 5395-1: 2013 + A1: 2018, EN ISO 5395-3: 2013 + A1: 2017 + A2: 2018, EN 60335-2-77: 2010
 EN ISO 14982: 2009, ISO 11094:1991, EN ISO 3744:1995, EN 50581: 2012


<p>Notified Body – Pověřená osoba – Benachrichtigte Körperschaft – Bemyndiget organ – Organismo notificado – Teavitatud asutus – Entité notifiée – Organisme notifié – Obavješteno tijelo – Organismo notificato – Registruota instancija –Pietieiktā iestāde – Aangemelde instantie – Teknisk kontrollorgan – Organ zaświadczący – Organismo Certificador – Уполномоченным органом – Priglašeni organ – Notifikovaný Orgán – Anmält organ – Onaylanmış Kuruluş</p>	<p>Notified Body 00905 Intertek Deutschland GmbH Stangenstr. 1 70771 Leinfelden-Echterdingen Germany</p>	
<p>Representative Measured Sound Power Level (L_{wa}) – Representativní hodnota změněné hladiny akustického výkonu (L_{wa}) – Repräsentativer gemessener Geräuschpegel (L_{wa}) – Näitlik mõõdetud helivõimsuse tase (L_{wa}) – Repräsentativ, mält stõjeffektiivne (L_{wa}) – Nivel de potencia acústica representativo medido (L_{wa}) – Tyypillinen mitattu äänitehotaso (L_{wa}) – Niveau de puissance acoustique représentatif mesuré (L_{wa}) – Repräsentativna izmjerena razina snage zvuka (L_{wa}) – Livello di potenza sonora rappresentativo rilevato (L_{wa}) – Repräsentativais izmērtais skaņas jaudas līmenis (L_{wa}) – Būdingas išmatuotas garso galios lygis (L_{wa}) – Repräsentatief gemeten geluidsniveau (L_{wa}) – Representativ mält lydeffektivná (L_{wa}) – Zmierzony reprezentacyjny poziom mocy akustycznej (L_{wa}) – Nivel de Potência de Som Medido Representativo (L_{wa}) – Репрезентативный измеренный уровень звуковой мощности (L_{wa}) – Трісна ізмерена рівень звукової мощності (L_{wa}) – Трісна ізмерена рівень звукової Charakteristická zmeraená hladina akustického výkonu (L_{wa}) – Representativ uppmätt ljudnivå (L_{wa}) – Örnek Ölçülmüş Ses Güç Seviyesi (L_{wa})</p>	<p>Guaranteed Sound Power Level (L_{wa}) – Zaručovaná hodnota hladiny akustického výkonu (L_{wa}) – Garantierter Geräuschpegel (L_{wa}) – Garantert støjefektivniveau (L_{wa}) – Nivel de potencia acústica garantizado (L_{wa}) – Tagatud mõõdetud helivõimsuse tase (L_{wa}) – Taattu äänitehotaso (L_{wa}) – Niveau de puissance acous- tique garanti (L_{wa}) – Zajamčena razina snage zvuka (L_{wa}) – Livello di potenza sonora garantito (L_{wa}) – Garantuotas garso galios lygis (L_{wa}) – Garantētais skaņas jaudas līmenis (L_{wa}) – Gega- randeerd geluidsniveau (L_{wa}) – Garantert lydeffektivná (L_{wa}) – Gwarantowany reprezentacyjny poziom mocy akustycznej (L_{wa}) – Nível de Potência de Som Medido Garantido (L_{wa}) – Гарантированный уровень звуковой мощности (L_{wa}) – Zajam- čena raven zvočne moči (L_{wa}) – Zaručena hladina akustického výkonu (L_{wa}) – Garantierad uppmätt ljudnivå (L_{wa}) – Garanti Edilmiş Ses Güç Seviyesi (L_{wa})</p>	
<p>997301 102 dB(A) 997302 101 dB(A)</p>	<p>997301 103 dB(A) 997302 102 dB(A)</p>	
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WELCOME

Original Instructions.

Congratulations on your purchase and welcome to the Ariens family! Every machine in the Ariens lineup is designed for long-lasting and unsurpassed performance. We are confident your machine will be part of your family for many years to come.

Have Questions or Need Assistance?

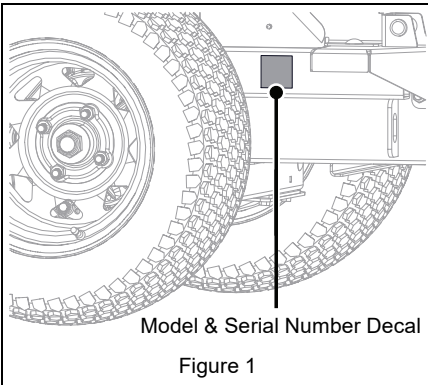
www.ariens.com

A parts manual for your unit is available for free download or purchase at www.ariens.com.

REGISTER YOUR PRODUCT!

It is extremely important to register your product at time of purchase. Product registration activates the warranty and establishes a communication link from AriensCo.

Locate the model and serial number decal on your unit and register those numbers online at www.ariens.com. See Figure 1 for decal location. Be aware that the original selling dealer may have already completed product registration on behalf of the original purchaser.



Record model number here.

Record serial number here.

MANUALS

Before operating or servicing the unit, carefully and completely read the manuals provided with the unit. They contain safety instructions and important information about unit controls.

Your dealer must review important information in this manual with you before or upon delivery of the unit. It is your responsibility to read and understand all safety precautions and instructions in the manuals. If you do not understand or have difficulty following the instructions, contact an authorized Ariens dealer for assistance. To locate your nearest Ariens EV dealer, go to www.ariens.com.

DISCLAIMER

Ariens reserves the right to discontinue, make changes to, and add improvements upon its products at any time without public notice or obligation. The descriptions and specifications contained in this manual were in effect at printing. Equipment described in this manual may be optional. Some illustrations may not be applicable to your unit.

SAFETY

Read these safety rules and follow them closely. Failure to follow these rules could lead to loss of control of unit, severe personal injury or death to you or bystanders, or result in damage to property or the unit.

PRACTICES & LAWS

Practice usual and customary safe working precautions. Learn applicable rules and laws in your area. ALWAYS follow the practices set forth in this manual.

REQUIRED OPERATOR TRAINING



Read and understand the Operator's Manual and decals on the unit. This information is for your safety and the proper use of your equipment. Failure to follow these

instructions and warnings may cause death or serious injury. If you have purchased this product from an authorized Ariens EV dealer, the dealer can provide you with training.

Familiarize yourself and any other operators with all controls and the safe use of the features of this unit. If you loan, rent or sell this product to others, provide them with all manuals.

If you have any questions, please call our customer support line at 920-756-4688 or contact us at www.ariens.com. Do not use this equipment if, after reading the Operator's Manual and the on-board decals, you have any questions about the safe use of this product.



WARNING: AVOID INJURY. This cutting machine is capable of amputating body parts and throwing objects. Failure to observe the safety instructions in the manuals and on decals could result in serious injury or death.

ALWAYS disengage blades, stop unit, remove key, set parking brake and allow moving parts to stop before leaving operator's position.

SAFETY ALERT SYMBOL



This is the safety alert symbol. It means:

- **ATTENTION!**
- **YOUR SAFETY IS INVOLVED!**

When you see this symbol:

- **BECOME ALERT!**
- **OBEY THE MESSAGE!**

SIGNAL WORDS

The safety alert symbol above and signal words below are used on decals and in this manual. Read and understand all safety messages.

1. Danger



DANGER: Indicates an **IMMINENTLY HAZARDOUS SITUATION!** If not avoided, **WILL RESULT** in death or serious injury.

2. Warning



WARNING: Indicates a **POTENTIALLY HAZARDOUS SITUATION!** If not avoided, **COULD RESULT** in death or serious injury.

3. Caution



CAUTION: Indicates a **POTENTIALLY HAZARDOUS SITUATION!** If not avoided, **MAY RESULT** in minor or moderate injury. It may also be used to alert against unsafe practices.

4. Notice

NOTICE: Indicates information or procedures that are considered important but not hazard related. If not followed, property damage could result.

5. Important

IMPORTANT: Indicates general reference information worthy of special attention.

SAFETY DECALS

The safety decals on your unit are visual reminders of the important safety information in this manual. All messages on your unit must be fully understood and carefully followed. Safety decals on the unit are explained below.

ALWAYS replace missing or damaged safety decals. Replacement decal information is in the parts manual for your unit. Decals can be ordered from your dealer.

See Figure 2 for safety decal locations.

Safety Decal Locations

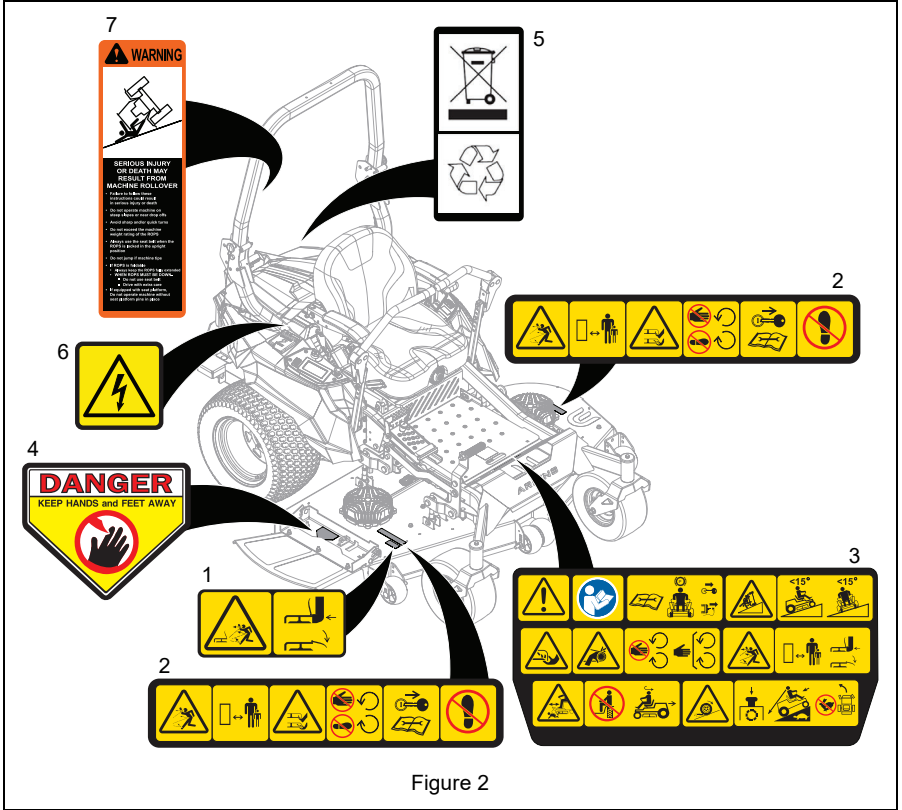


Figure 2

Safety Decal Descriptions

1. DANGER!



Discharge Hazard – NEVER operate unit without discharge chute in operating position. Thrown objects can cause injury or damage.



DO NOT operate mower unless all guards are in operating position or bagger is attached.

2. DANGER!



Discharge Hazard – NEVER direct discharge toward people, pets or property. Thrown objects can cause injury or damage.



Keep children and others away from unit while unit is in operation.



Amputation Hazard – NEVER stick hands or feet under deck or shielded areas.



Keep hands and feet away from all rotating or moving parts.



Remove batteries and read manual before servicing or making adjustments to unit.



DO NOT step or stand in this area.

3. DANGER!



DANGER!



Read Operator's Manual.

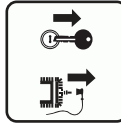
3. Service Hazard



Read Operator's Manual before servicing or making adjustments to unit.



Set parking brake.



Does not apply to this unit.

3. Tipping Hazard



Avoid tipping hazard.



DO NOT operate on slopes over 15°.



DO NOT operate on slopes over 15°.



To avoid amputation hazard, DO NOT put hands near rotating blades.



Does not apply to this unit.



Keep hands away from all rotating or moving parts.



Keep all guards and shields in place.

3. Discharge Hazard



NEVER direct discharge toward people, pets or property. Thrown objects can cause injury or damage.



Keep children and others away from unit while unit is in operation.



DO NOT operate mower unless all guards are in operating position or bagger is attached.

3. Bystander Hazard



DO NOT operate the unit in the presence of bystanders.



DO NOT carry passengers.

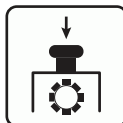


Look behind when operating the unit in reverse.

3. Loss of Traction Hazard



If loss of traction is experienced do the following:



Disengage PTO.



Look before backing. Proceed off slope slowly.



DO NOT try to turn or speed up.

4. DANGER!



Keep hands and feet away from all rotating or moving parts.

5. DISPOSAL / RECYCLING



Batteries are recyclable. DO NOT dispose of batteries in household or commercial waste bin.



Reuse of recycled material decreases pollution in the environment. Contact an authorized Ariens EV dealer to recycle battery.

6. WARNING!



Electric Shock Hazard. Move key to OFF position and remove batteries before rotating seat forward.

7. WARNING!



SERIOUS INJURY OR DEATH may result from machine rollover.

- Failure to follow these instructions could result in serious injury or death.
- **DO NOT** operate machine on steep slopes or near drop offs.
- Avoid sharp and/or quick turns.
- **DO NOT** exceed the machine weight rating of the ROPS.
- **ALWAYS** use the seat belt when the ROPS is locked in the upright position.
- **DO NOT** jump if machine tips.
- If ROPS is foldable:
 - **ALWAYS** keep the ROPS fully extended.
 - **WHEN ROPS MUST BE DOWN:**
 - **DO NOT** use seat belt.
 - Drive with extra care.
- If equipped with seat platform:
 - **DO NOT** operate machine without seat platform pins in place or locks engaged.

ROLLOVER PROTECTIVE STRUCTURE

To maintain operator protection and roll bar certification:

- Replace a damaged roll bar, **DO NOT** attempt to repair or modify.
- Any alteration of the roll bar must be approved by the manufacturer.
- **DO NOT** exceed the machine weight rating of the roll bar.

SAFETY RULES

The following safety instructions are based on the present state of knowledge and current legislation (B71.4 specifications of the American National Standards Institute and ISO 5395).

This safety information provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Training

Read, understand and follow all instructions on the machine and in the manual(s) before operating this unit.

Keep the area of operation clear of all persons, particularly small children. Be alert and shut off unit if children enter area.

Complete a walk-around inspection of the unit to understand the unit, your work area and all safety decals.

Understand:

- How to operate all controls
- The functions of all controls
- How to **STOP** in an emergency
- Braking and steering characteristics
- Turning radius and clearances

If the operator or the mechanic cannot read the manual, it is the owner's responsibility to explain it to them.

Only allow responsible adults, who are familiar with the instructions, to operate this machine.

ALWAYS train any inexperienced operators and require them to read and understand all manuals and decals.

Only the user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

Operator Age

DO NOT allow children under the age of 18 to operate outdoor power equipment.

Local regulations may restrict the age of the operator.

Data indicates operators above age 60 are involved in a large percentage of riding mower-related injuries.

These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.

Children
Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. NEVER assume that children will remain where you last saw them.
Be alert and turn machine off if a child enters the area.
Before and while backing, look behind and down for small children.
NEVER carry children, even with the blade(s) shut off. They may fall off and be seriously injured or interfere with safe machine 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 machine.
NEVER allow children to operate the machine.
Use extreme care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.
Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.
Keep batteries out of reach of children.

Personal Protection
DO NOT wear loose clothing or jewelry and tie back hair that may get caught in rotating parts.
Wear adequate outer garments.
NEVER wear open sandals or canvas shoes during operation. Wear adequate safety gear, protective gloves and footwear.
Wear proper footwear to improve footing on slippery surfaces.
ALWAYS wear eye and ear protection when operating machine.
ALWAYS wear safety glasses and protective gear near batteries. Use insulated tools.

Before Operation
Keep all nuts and bolts tight to be sure the equipment is in safe working condition.
Maintain the machine to be in compliance with the maintenance schedule.
Check parking brake operation frequently. Adjust and service as required.

Inspect unit before each use for missing or damaged decals and shields, correctly operating safety interlock system, and deterioration of grass catchers. Replace or repair as needed.
Ensure Safety Interlock System is functioning properly. DO NOT operate unit if safety interlock is damaged or disabled.
NEVER tamper with safety devices. Check their proper operation regularly.
DO NOT clean unit with water. To avoid damage to electrical components and motors, clean unit with compressed air or a dry cloth.
Keep machine free of grass, leaves, or other debris build-up.
To prevent fire hazards, clean the following before each use: <ul style="list-style-type: none"> • Underside of mower deck • Wiring and wiring harnesses • Battery busbar • Controller bay

Operation
Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
ALWAYS maintain unit in safe operating condition.
DO NOT operate machine while feeling tired, ill or under the influence of alcohol or other drugs.
DO NOT put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.
DO NOT touch parts which are hot. Allow parts to cool.
DO NOT operate machine without the entire grass catcher, discharge guard, or other safety devices in place and working.
ALWAYS keep hands and feet away from all pinch points.
Avoid slippery surfaces. ALWAYS be sure of your footing.
NEVER carry passengers.
NEVER direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blade(s) when crossing gravel surfaces.

NEVER engage PTO when attachment, including mower blades, is not in use. ALWAYS turn off power to attachment when not in active use such as traveling or crossing driveways.
NEVER engage PTO while raising the attachment, including mower blades, or when attachment is in the raised position.
Keep safety devices or guards in place and functioning properly. NEVER modify or remove safety devices.
DO NOT mow in reverse unless absolutely necessary. ALWAYS look down and behind before and while backing.
Slow down before turning.
If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.

Operation Conditions

Lightning can cause severe injury or death. If lightning is seen or thunder is heard in the area, do not operate the machine; seek shelter.
Avoid dangerous environments. DO NOT operate the mower in rain or wet grass. To reduce the risk of electrical component damage, do not expose to water or operate on wet ground.
ALWAYS check overhead and side clearances carefully before operation.
Watch for traffic when operating near or crossing roadways.
Clear the area of objects such as rocks, wire, toys, etc., which could be thrown by the blades.
Check for weak spots on docks, ramps or floors. Avoid uneven work areas and rough terrain. Stay alert for hidden hazards or traffic.
Use care when approaching blind corners, shrubs, trees or other objects that may obscure vision.
Dust, smoke, fog, etc. can reduce vision and cause an accident.
Operate machine only in daylight or good artificial light.

Slope Operation

Slopes are a major factor related to loss of control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution. If you cannot back up the slope or if you feel uneasy on it, DO NOT mow it.
DO NOT operate on slopes of more than 15°.
Mow up and down slopes, not across.
Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
DO NOT mow on moist or wet grass. Tires may lose traction causing a loss of control.
Use extra care while operating machine with grass catchers or other attachments; they can affect the stability of the machine. DO NOT use on steep slopes.
Keep all movements on the slope <i>slow</i> and <i>gradual</i> . DO NOT make sudden changes in speed or direction, which could cause the machine to roll over.
Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blade(s) and proceed slowly straight down the slope.
Operation on slopes may lead to loss of steering control. When operating on slopes be prepared to react to an emergency situation: <ul style="list-style-type: none"> • Return steering levers to neutral position. • Immediately set parking brake.
DO NOT try to stabilize the machine by putting your foot on the ground.
DO NOT park on slopes unless necessary. When parking on slope, ALWAYS chock or block wheels. ALWAYS set parking brake.
Choose a low ground speed so you will not have to stop or shift while on a slope.
DO NOT operate near drop-offs, ditches, or embankments. Unit can suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
DO NOT override electric brake to free wheel when on a slope.

Towing/Transporting
Follow the manufacturer's recommendations for weight limits for towed equipment and towing on slopes.
NEVER allow children or others in or on towed equipment.
Tow only with a machine that has a hitch designed for towing. DO NOT attach towed equipment except at the hitch point.
On slopes, the weight of the towed equipment may cause loss of control.
Travel slowly and allow extra distance to stop.
Towing the unit is not recommended.

Accessories
Use only attachments recommended by AriensCo that are appropriate to your use and can be used safely in your application.
Follow the manufacturer's recommendation for wheel weights or counterweights
Check grass catcher components and the discharge guard frequently and replace with the manufacturer's recommended parts, when necessary.

Rollover Protection System (ROPS)
Frequently inspect ROPS and seat belt for damage or loose hardware.
Use extreme care when working close to fences, ditches, or on hills.
Check overhead clearance carefully before driving under any objects.
ALWAYS wear seat belt while operating the unit with the ROPS in the upright position.
Only lower ROPS for transport.
DO NOT wear a seat belt while operating the unit with the center bar in the lowered position.
DO NOT weld, cut, drill or modify ROPS in any manner unless instructed by the manufacturer.

Service
The use of non-genuine replacement parts or accessories could adversely affect machine operation and safety.
Maintain or replace safety and instruction labels, as necessary.
ALWAYS remove all batteries before performing any service or maintenance.
Keep unit free of debris.
ALWAYS block wheels and know all jack stands are strong and secure and will hold weight of unit during maintenance.
Release any pneumatic pressure from components slowly.
Lower cutting deck unless a positive mechanical lock is used.
NEVER weld or straighten mower blades.
Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
Electrical service is to be done by trained professionals only.

Transporting Unit
Use extra care when loading or unloading the machine into a trailer.
Secure unit chassis to transport vehicle. NEVER secure from rods or linkages that could be damaged.

Battery Handling and Use
Batteries when abused may pose fire, explosion and severe burn hazard. Handle with caution.
DO NOT touch any live connections.
Avoid transportation or mechanical impact that may physically damage batteries.
DO NOT expose batteries to temperatures lower than -20° C (-4° F) or above 55° C (130° F) as it will impact the battery life cycle.
Battery terminals should only be cleaned with compressed air or a dry cloth prior to insertion into the machine.
DO NOT use batteries which are not designed for use with the equipment.

Battery Storage

Avoid storage in direct sunlight.

Store batteries in a clean, dry location.

DO NOT charge batteries to 100% state of charge (SOC) when storing for a long duration. Charge to less than 80% SOC.
--

Battery Disposal

Contact an authorized AriensEV dealer to recycle battery. DO NOT dispose in household or commercial waste bin.
--

Discharge within the temperature limits of the battery. See <i>Battery Handling and Use</i> on page 9.
--

CONTROLS AND FEATURES

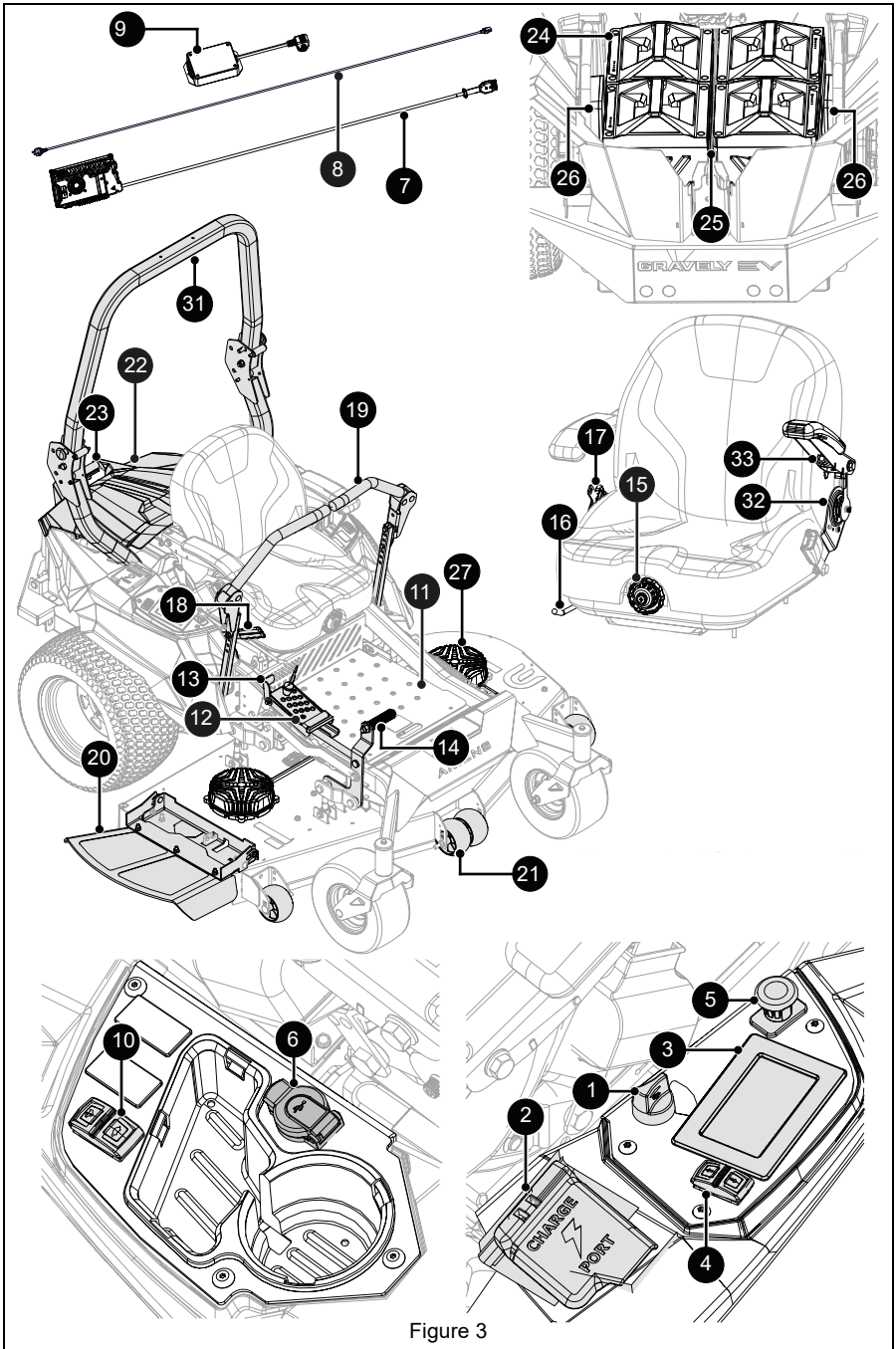
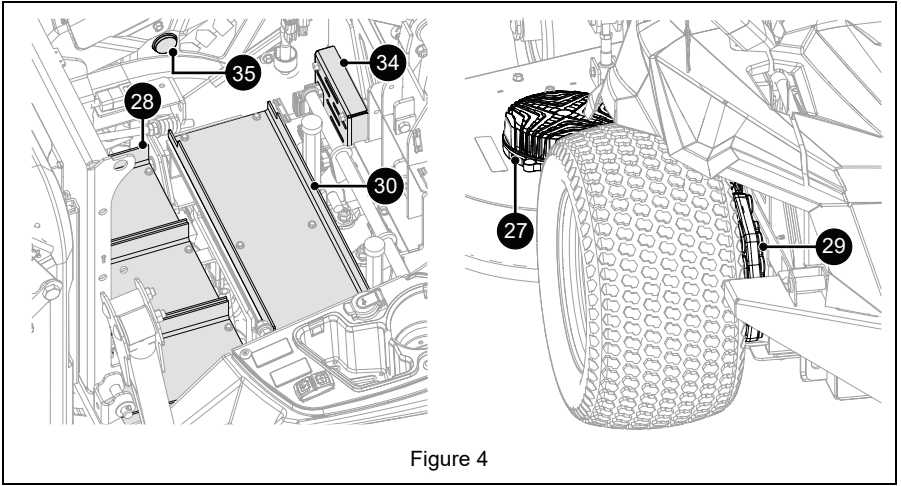


Figure 3



- | | |
|---|--|
| <ul style="list-style-type: none"> 1. Key Switch 2. Charge Port 3. Digital Display Panel 4. Display Navigation Switch 5. Power Take-off (PTO) Knob 6. USB Port 7. Battery Charger 8. 220V Power Cord 9. EMI Filter 10. High / Low Speed Switch 11. Bypass Handle (Below Footplate) 12. Height-of-Cut Adjustment System 13. Transport Lock Release Lever 14. Deck Lift Pedal 15. Ride Adjustment Knob 16. Seat Adjustment Lever 17. Seatbelt 18. Parking Brake Lever | <ul style="list-style-type: none"> 19. Steering Lever (2) 20. Discharge Chute 21. Anti-Scalp Wheel (6) 22. Hood Assembly 23. Hood Latch 24. Battery (4) 25. Battery Busbar (Below Batteries) 26. Busbar Cover (2) 27. Deck Motor (3) 28. Deck Controller (3) (Below Heat Plate) 29. Traction Drive Motor (2) 30. Traction Drive Controller (2) (Below Heat Plate) 31. Rollover Protection Structure (ROPS) 32. Backrest Adjustment Lever 33. Armrest Angle Adjustment Knob (2) 34. Vehicle Control Module (VCM) 35. Audible Alarm |
|---|--|



WARNING: AVOID INJURY.
Read and understand the entire *Safety* section before proceeding.

See Figure 3 for all controls and features locations.

KEY SWITCH

See Figure 5.

Controls power to the system. The key cannot be removed when in the on position.

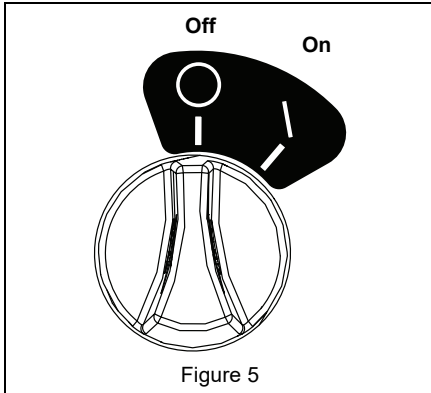


Figure 5

CHARGE PORT

See Figure 6.

Provides a connection point from the charger to the battery pack.

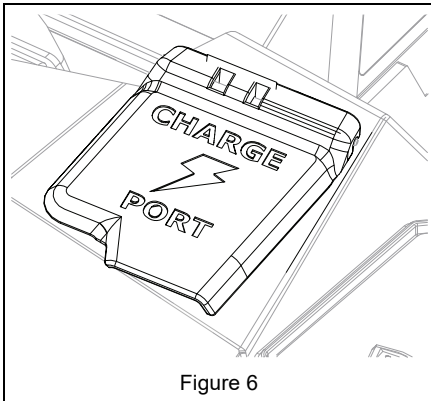


Figure 6

DIGITAL DISPLAY PANEL

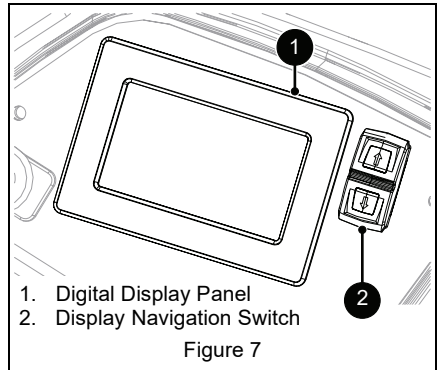
See Figure 7.

Provides electrical system information to the operator. Digital display is accessible when key switch is turned to the on position and hood assembly is closed. Display will also turn to the on position when charger is plugged in or batteries are in balance mode.

DISPLAY NAVIGATION SWITCH

See Figure 7.

Navigates digital display functions.



1. Digital Display Panel
2. Display Navigation Switch

Figure 7

POWER-TAKE-OFF (PTO) KNOB

See Figure 8.

Controls power to mower blades. Pull knob up to engage and push knob down to disengage the blades.



WARNING: AVOID INJURY.
Blades will not *immediately* stop after pushing PTO knob down to off position.

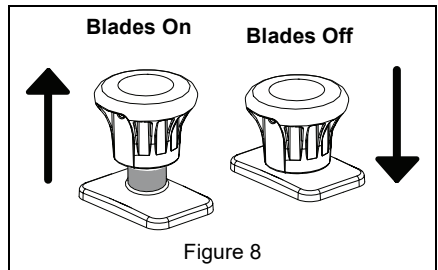


Figure 8

USB PORT

See Figure 9.

NOTICE: DO NOT attempt to charge accessories rated more than 4 amps as it could damage the USB port or mower.

IMPORTANT: Ensure hearing protection and audio devices do not interfere with ability to hear the audible alarm.

Provides 5V of power to USB powered accessories.

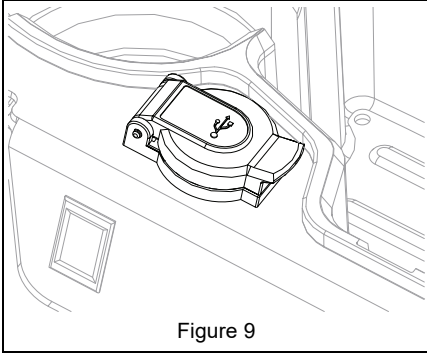


Figure 9

BATTERY CHARGER

See Figure 10.

Provides power to the battery pack when plugged into the charge port.

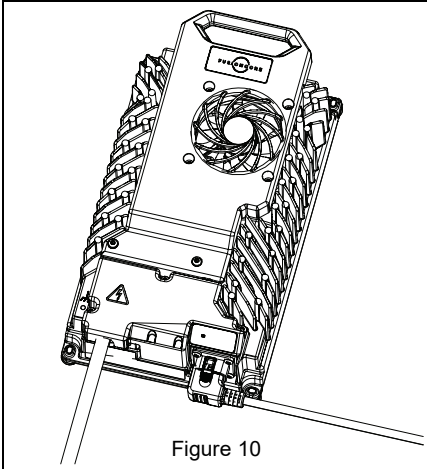


Figure 10

VEHICLE CONTROL MODULE

See Figure 11.

Controls electrical components of the machine.

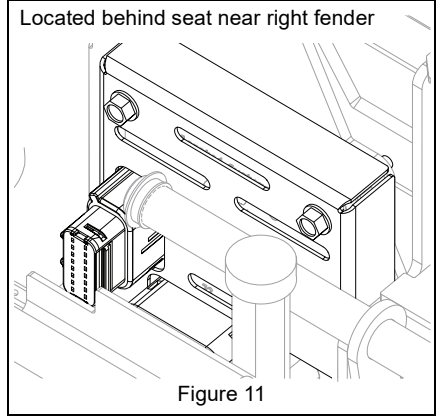


Figure 11

HEIGHT-OF-CUT ADJUSTMENT SYSTEM

Sets the height of cut.

HIGH / LOW SPEED SWITCH



WARNING: AVOID INJURY.
Keep setting at low speed until you learn how to operate the unit.

See Figure 12.

Controls maximum drive speed:

- High speed position: 17.7 kph (11mph) drive speed.
- Low speed position: 12.9 kph (8mph) drive speed.

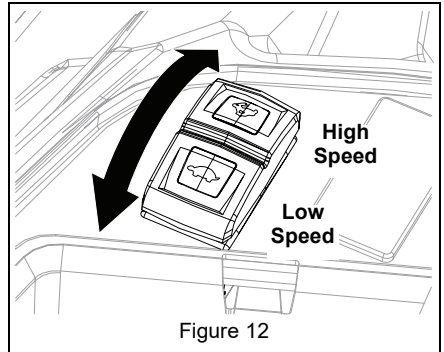


Figure 12

BATTERY BUSBAR

See Figure 13.

NOTICE: AVOID DAMAGE! Batteries must be carefully inserted vertically into busbar with battery connection pins facing the center of the machine. **DO NOT** drag batteries across busbar fins to position.

Connects batteries to electrical system.

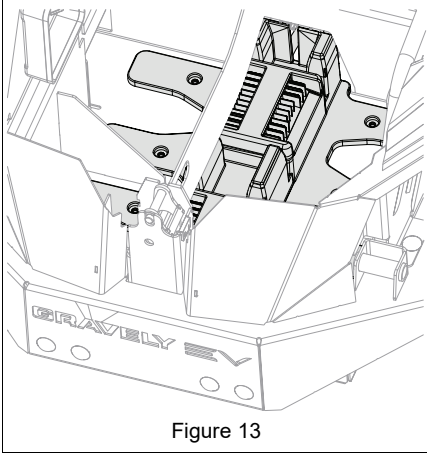


Figure 13

TRANSPORT LOCK RELEASE LEVER

See Figure 14.

Releases deck from transport lock position.

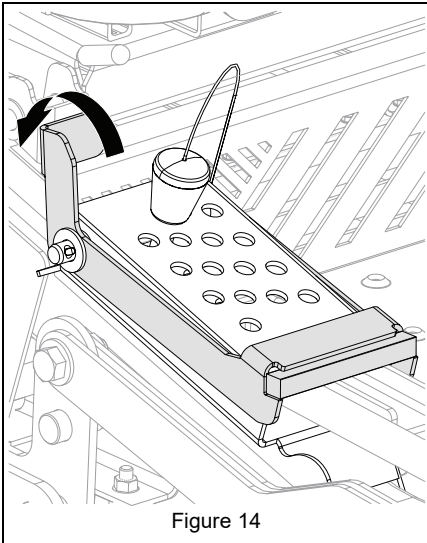


Figure 14

EMI FILTER

See Figure 15.

Reduces electromagnetic noise that may cause interference with electrical devices.

IMPORTANT: EMI filters must be used with all chargers.

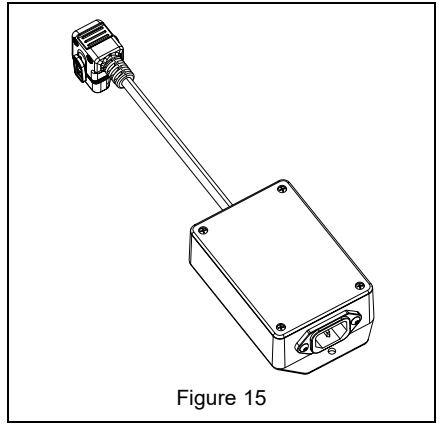


Figure 15

220V POWER CORD

See Figure 16.

Provides 220V of power to main electrical supply.

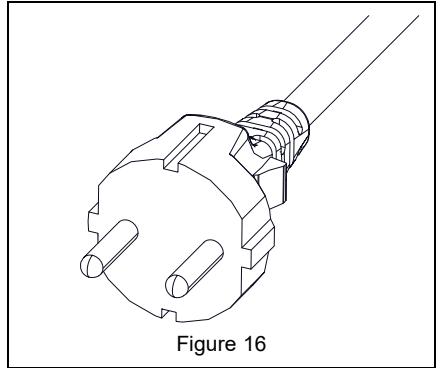


Figure 16

DECK LIFT PEDAL

Raises mower deck to change height-of-cut setting.

SEAT ADJUSTMENT LEVER

Unlocks seat to allow operator to move seat forward or backward and then lock in desired position.

ROLLOVER PROTECTION STRUCTURE (ROPS)

Help protect operator that is wearing their seatbelt in the event of a rollover. DO NOT wear seatbelt when operating with ROPS in the lowered position.

SAFETY INTERLOCK SYSTEM

Monitors the interaction of various unit features for operator safety.

STEERING LEVERS

Control the direction and speed of unit. To stop unit, return both steering levers to neutral position.

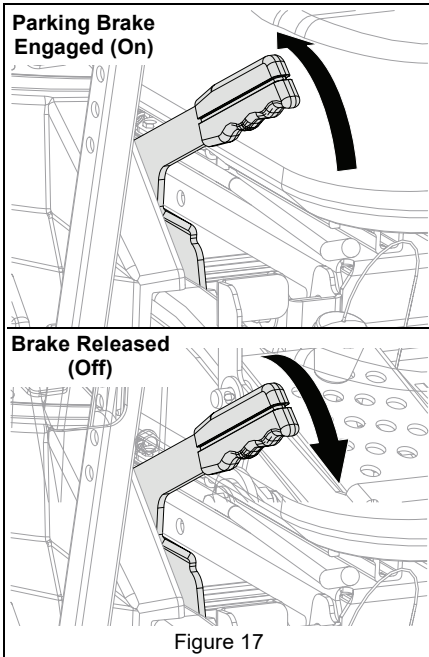
ANTI-SCALP WHEELS

Help prevent the deck from contacting the ground and scalping the lawn when passing over a high spot.

PARKING BRAKE LEVER

See Figure 17.

Controls the parking brake.



BYPASS HANDLE

Releases brake on wheel motors so unit may be moved with the system off.

RIDE ADJUSTMENT KNOB

Adjusts seat for operator comfort.

BACKREST ADJUSTMENT LEVER

Controls backrest angle for operator comfort.

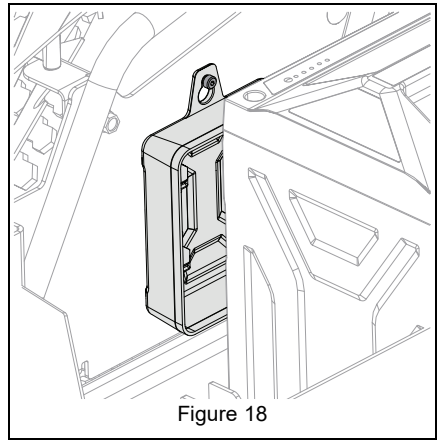
ARMREST ANGLE ADJUSTMENT KNOBS

Set armrest angle for operator comfort.

BUSBAR COVER

Prevents grass, debris and moisture build-up on busbar terminals. See Figure 18.

NOTICE: AVOID DAMAGE. Always install busbar cover when two batteries are installed in the machine.



DECK MOTORS

Monitors blade speed and temperature.

DECK CONTROLLERS

Control deck motors.

TRACTION DRIVE MOTORS

Monitors speed and temperature of vehicle.

TRACTION DRIVE CONTROLLERS

Control traction drive motors and driveability of vehicle.

AUDIBLE ALARM

See Figure 19.

Notifies operator of certain operating conditions and helps prevent accidental movement of the machine.

The audible alarm beeps under the following conditions:

- When key switch is turned to the run position (1 beep).

IMPORTANT: Reference *Digital Display* on page 18 for display function details.

- When Live-to-Drive feature is activated (2 beeps).
- When Live-to-Drive feature is deactivated (1 beep).
- When a vehicle fault occurs (1 beep).

The audible alarm beeps when the following conditions exist for 5 seconds:

- When key switch is turned to the on position and operator is not seated (continues to beep every 5 seconds until conditions no longer exist).
- When Live-to-Drive feature is activated, parking brake is off, vehicle is not moving, and steering arms are in neutral (continues to beep every 5 seconds until conditions no longer exist).

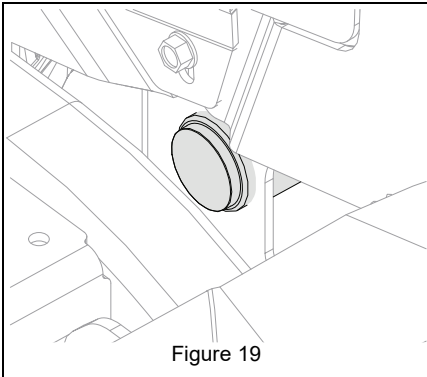


Figure 19

DIGITAL DISPLAY

Side Bar Navigation

See *Side Bar Navigation* on page 19.



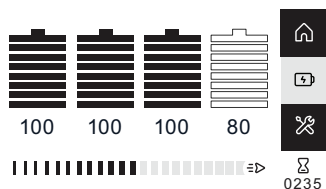
Home Screen

See *Home Screen* on page 19.



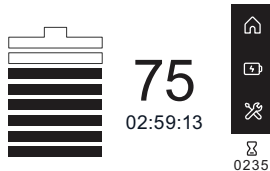
Balance Screen

See *Balance Screen* on page 22.



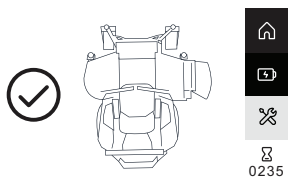
Power Screen

See *Power Screen* on page 20.



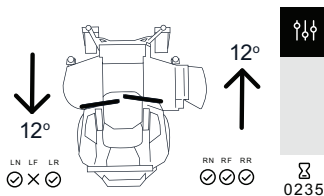
Charge Screen

See *Charge Screen* on page 21.



Maintenance Screen

See *Maintenance Screen* on page 21.







Steering Sensor Calibration Screen

See *Steering Sensor Calibration Screen* on page 22.

Figure 20





SIDE BAR NAVIGATION






Displays when key switch is turned to the on position.

Icon	Meaning	Description	Color Code(s)
	Home Screen	See <i>Home Screen</i> on page 19.	<i>Blue</i> : Default color when operator navigates to home screen.
	Power Screen	See <i>Power Screen</i> on page 20.	N/A
	Maintenance Screen	See <i>Maintenance Screen</i> on page 21.	<i>Red</i> : Maintenance or repair required and / or fault is present. <i>Blue</i> : Default color when operator navigates to maintenance screen and unit is clear of faults.
	Hour Meter	Measures and displays battery runtime.	N/A

HOME SCREEN

Displays when key switch is turned to the on position.




Icon	Meaning	Description	Color Code(s)
	State of Charge (SOC)	Displays battery charge in 12.5% increments.	<i>Light Green / Blue</i> : 100% – 37.5% <i>Yellow / Orange</i> : 37.4% – 12.5% <i>Red</i> : 12.4% – 0%
	Percentage Digital Readout	Displays average state of charge of active batteries in 1% increments.	N/A
	Battery Recognition	Displays number of batteries properly mounted in machine.	<i>Black</i> : Batteries are discharging. <i>White with Black Outline</i> : Batteries are properly installed but not active. <i>White with Grey Outline</i> : Batteries are not installed. <i>Red</i> : Battery recognition fault.
	Live-to-Drive	Notifies operator when machine is ready to drive. The following conditions must exist for Live-to-Drive feature to be activated: <ul style="list-style-type: none"> • Key switch in the on position. • Parking brake engaged. • Operator presence switch (OPC) engaged (operator seated). • Steering levers in neutral position. • Hood assembly closed and securely latched. 	<i>White</i> : <i>Live-to-Drive feature not activated</i> . <i>Blue</i> : Live-to-Drive feature activated (ready to drive). <i>Red</i> : Live-to-Drive fault.

  	Blade Status	Displays blade status.	<i>White:</i> PTO switch disengaged (blades off). <i>Blue:</i> PTO switch engaged (blades on). <i>Yellow:</i> PTO switch is engaged when machine is turned on, unit enters limp mode (see <i>Limp Mode</i> on page 32) and / or fault condition exists. <i>Red:</i> Blade status fault.
	Parking Brake	Displays parking brake status.	<i>White:</i> Parking brake is engaged. <i>Blue:</i> Parking brake is disengaged. <i>Red:</i> Parking brake fault.
	Low Battery	Displays battery SOC status.	<i>White:</i> SOC above 12.5%. <i>Red:</i> SOC below 12.5%.

POWER SCREEN

Displays when key switch is turned to the on position and operator navigates to the power screen.




IMPORTANT: See *Check SOC* on page 31 to check battery SOC. For battery charging details, see *Charge Batteries* on page 31.

Icon	Meaning	Description	Color Code(s)
	State of Charge (SOC)	Displays battery charge level in 12.5% increments.	<i>Light Green / Blue:</i> 100% – 37.5% <i>Yellow / Orange:</i> 37.4% – 12.5% <i>Red:</i> 12.4% – 0%
	Percentage Digital Readout	Displays average state of charge of active batteries in 1% increments.	N/A
	Power Bar Status	Displays available power in 25% increments.	N/A

MAINTENANCE SCREEN

Displays when key switch is turned to the on position and operator navigates to the maintenance screen.




IMPORTANT: See *Warnings* on page 38 for digital readout warning codes. For fault codes, contact an authorized Ariens EV dealer.

Icon	Meaning	Description	Color Code(s)
	Fault Icon & Temporary Warning Icon	Displays fault and warning notifications. See <i>Check Faults / Warnings</i> on page 29.	<i>Red:</i> Displays location of issue causing fault notification on top view of machine. <i>Yellow:</i> Displays location of issue causing warning notification on top view of machine.
	Fault / Warning Digital Readout	Displays a five digit number that indicates the fault or warning that occurred.	N/A
	No Faults or Warnings	Displays when the machine is clear of faults or warnings.	N/A

CHARGE SCREEN

Displays when operator connects battery charger to charge port.

IMPORTANT: See *Check SOC* on page 31 to check battery SOC. For battery charging details, see *Charge Batteries* on page 31.



Icon	Meaning	Description	Color Code(s)
	State of Charge (SOC)	Displays battery charge level in 12.5% increments.	<i>Light Green / Blue:</i> 100% – 37.5% <i>Yellow / Orange:</i> 37.4% – 12.5% <i>Red:</i> 12.4% – 0%
	Percentage Digital Readout	Displays average SOC of active batteries in 1% increments.	N/A
	Charge Time	Displays time remaining until batteries are fully charged.	N/A

BALANCE SCREEN

Displays when:

- Key switch is in the off position.
- Hood assembly is closed.
- Two or more batteries have at least a 12% difference in SOC.










IMPORTANT: To check battery balance, see *Check Battery Balance* on page 30. For battery balancing details, see *Auto-Balance Feature* on page 30.

Icon	Meaning	Description	Color Code(s)
	State of Charge (SOC)	Displays battery charge in 12.5% increments.	<i>Light Green / Blue:</i> 100% – 37.5% <i>Yellow / Orange:</i> 37.4% – 12.5% <i>Red:</i> 12.4% – 0%
	Balance Time	Displays time remaining until machine is fully operational with two balanced batteries.	N/A

STEERING SENSOR CALIBRATION SCREEN

Displays when operator holds display switch down for 10 seconds while on the maintenance page.

IMPORTANT: See *Steering Sensor Calibration Screen* on page 22 for steering sensor calibration sequence.

Icon	Meaning	Description	Color Code(s) / Additional Icons
	Complete	Displays when step is complete.	Example: LN LF LR RN RF RR 
	Left / Right Arrow	Instructs operator of proper steering sensor direction / position during calibration sequence.	N/A
	Not Complete	Displays when step is not complete.	Example: LN LF LR RN RF RR 
	Loading	Displays when entering the steering sensor calibration sequence and save calibration step.	N/A
	Neutral Calibration	Displays when neutral position is being calibrated.	N/A
	Save Calibration	Allows user to save parameters in each steering sensor when calibration is complete.	N/A
	Cancel Calibration	Allows user to cancel calibration.	N/A

OPERATION



WARNING: AVOID INJURY.
Read and understand the *Safety* section before proceeding.

IMPORTANT: All references to left, right, front or rear are given from the perspective of operator in operator's position, facing the direction of forward travel.

EMERGENCY STOPPING

1. Move steering levers to neutral position.
2. Engage parking brake.
3. Push PTO knob down to off position.
4. Turn key switch to off position and remove key.

BEFORE OPERATING UNIT

IMPORTANT: Register your product! See *Register Your Product!* on page 1.

1. Check function of the Safety Interlock System by performing the tests in *Check Safety Interlock System* on page 28. Contact an authorized Ariens EV dealer for repair if any of the tests fail.
2. Check battery SOC and charge batteries if necessary. See *Check SOC* on page 31.
3. Ensure seat is in the operating position.
4. Ensure batteries are properly installed in the machine. See *Install Batteries* on page 32.
5. Ensure hood assembly is closed and handle is securely latched. See Figure 21.

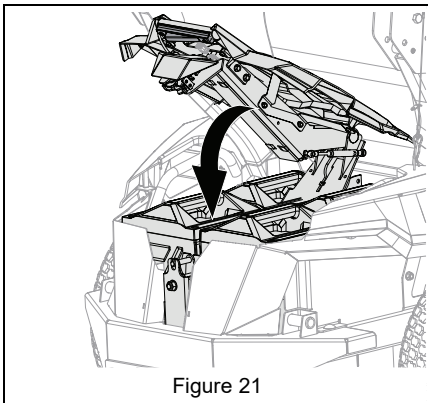


Figure 21

6. Check battery balance. See *Check Battery Balance* on page 30.
7. Set cutting height. See Figure 22.
 - d. Push mower lift pedal forward until transport lock engages.
 - e. Insert height adjustment pin through desired setting in height-of-cut adjustment system.
 - f. Push mower lift pedal slightly forward, release transport lock and slowly release pedal until it contacts adjustment pin and stops.

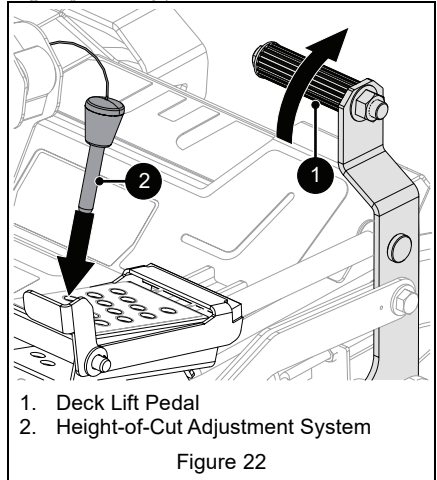


Figure 22

POSITION ROPS

IMPORTANT: Inspect ROPS and seatbelt for damage and loose or missing hardware.

Raise Center Bar

See Figure 23.

1. Remove hairpins from lock pins and remove lock pins from hinge plate.
2. Raise center bar and secure with lock pins and hairpins.



WARNING: AVOID INJURY.
Seatbelt **MUST** be worn when operating with center bar raised.

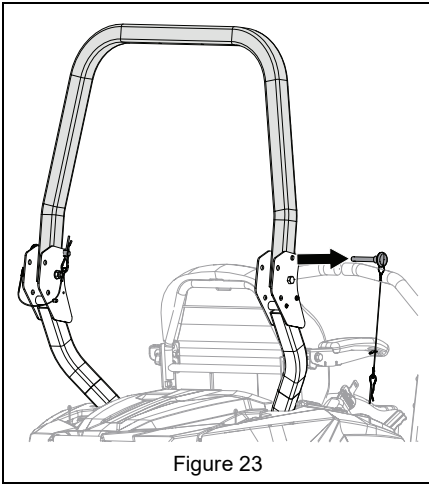


Figure 23

Lower Center Bar

See Figure 24.



WARNING: AVOID INJURY. Lower the center bar only when needed to drive under an object. There is no rollover protection with the center bar in the lowered position. DO NOT wear seatbelt when ROPS is in lowered position.

1. Remove hairpins from lock pins and remove lock pins from hinge plate.
2. Lower center bar and secure with lock pins and hairpins.

IMPORTANT: Return center bar to the raised position when clear of obstacles.

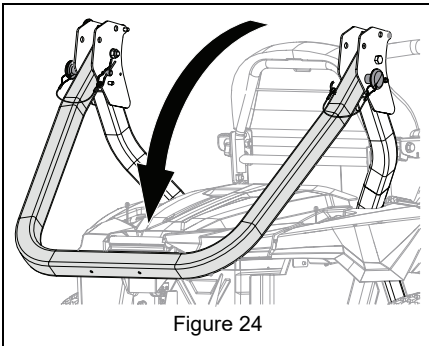


Figure 24

START THE SYSTEM

1. Push PTO knob down to off position.
2. Move steering levers to neutral position.
3. Engage parking brake.
4. Insert key switch and turn to the on position.

OPERATE UNIT


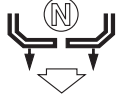



1. Ensure Live-to-Drive feature is activated. See *Home Screen* on page 19.
2. Release parking brake.
3. Pull PTO knob up to on position.

NOTICE: Never engage the PTO if the mower is plugged with grass or other material. This may cause damage to the motors.



WARNING: AVOID INJURY. Move the steering levers slowly and keep the mower at slow speed until you learn how to operate the unit.

4. Move steering levers to begin mowing.

Direction of Travel	Lever Position
Forward	Push both levers forward from neutral position. 
Reverse	Pull both levers backward from neutral position. 
Right Turn	Push left lever farther forward than the right lever. 
Left Turn	Push right lever farther forward than the left lever. 
Stop	Return both levers to neutral position. 

NOTICE: Aggressive turning can scuff or damage lawns. Always keep both wheels rotating when making sharp turns. **DO NOT** make turns with inside wheel completely stopped. For minimum turning radius, slowly reverse inside wheel while moving outside wheel slowly forward.

For Best Mowing Results

- Cut grass when it is dry.
- Keep mower blades sharp.
- Keep mower deck properly leveled.
- Do not set height of cut too low. For very tall grass, mow twice.
- Do not travel too fast.
- When mulching, only remove 1/3 of grass length per cutting. Do not cut more than 2.5 cm (1") at any one time.
- Discharge clippings into areas already cut.
- Vary cutting pattern with each mowing.
- Do not allow grass or debris to collect inside of mower deck. Clean after each use.

STOP THE UNIT



WARNING: AVOID INJURY. Wait for all moving parts to stop before leaving operator's position.

1. Move steering levers to neutral position.
2. Engage parking brake.
3. Push PTO knob down to off position.
4. Turn key switch to off position and remove key.

MOVE UNIT MANUALLY

Bypass electric brakes to move unit with system off.

1. Remove key and wait for moving parts to stop and for hot parts to cool.
2. Rotate footplate rearward until it locks into place. See Figure 25.

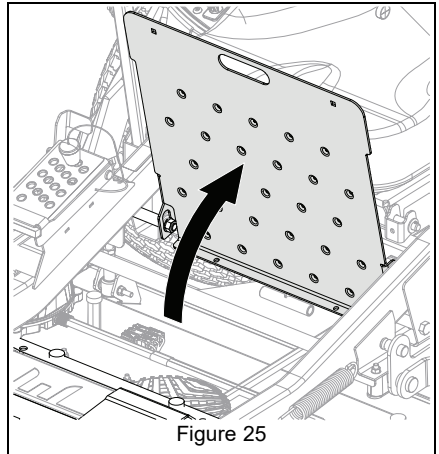


Figure 25

3. Pull bypass handle and secure notch to footplate ledge. See Figure 26.
4. Push unit to desired location.
5. To return footplate to operating position, lift up on footplate and lower to close (or) remove handle from footplate to close.

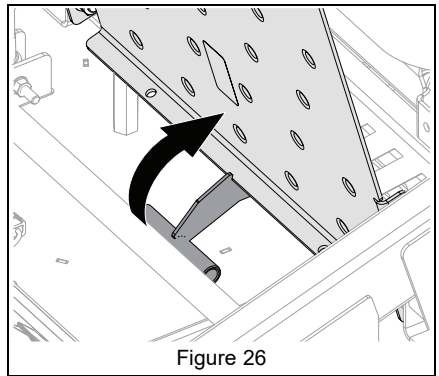


Figure 26

TRANSPORT UNIT

1. Push deck lift pedal completely forward to engage transport lock. Release pedal.
2. Move unit to transport vehicle.
3. Engage parking brake and remove key.
4. Secure mower frame to transport vehicle.

NOTICE: NEVER secure unit to vehicle from rods or linkages that could be damaged.

RELEASE TRANSPORT LOCK

1. Push deck lift pedal forward and lift transport lock release lever.
2. Slowly return mower lift pedal to resting position.

MAINTENANCE



WARNING: AVOID INJURY.
Read and understand the *Safety* section before proceeding.

An authorized Ariens EV dealer can provide service and adjustments to keep your unit operating at peak efficiency.

MAINTENANCE SCHEDULE

NOTICE: DO NOT clean unit with water. To avoid damage to electrical components and motors, clean unit with compressed air or a dry cloth.

Service Performed	Each Use	Every 25 hrs.	Every 50 hrs.	Every 100 hrs.	Every 250 hrs.	Every 500 hrs.
Clean Grass and Debris from Top and Underside of Deck	•					
Clean Debris from Under Fenders	•					
Clean Charge Port and USB Port	•					
Clean Seat Mount Area (Both Sides)	•					
Clean Battery Busbar	•					
Clean Battery Terminals	•					
Inspect Wiring, and Wire Harnesses	•					
Inspect Batteries and Busbar Interfaces for Damage	•					
Clean Traction Drive Motor Bay	•					
Change Gearcase Oil *					•	•
Check Safety Interlock System	•					
Check Parking Brake			•			
Check Tire Pressure	•					
Check Mower Blades		•				
Check Battery SOC	•					
Check Fasteners				•		

Lubricate Unit			•			
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* Change gearcase oil after first 250 hours of operation and every 500 hours thereafter. Contact an authorized Ariens EV dealer.

SERVICE PARTS

Contact an authorized Ariens EV dealer to purchase service parts for your unit.

Description	Qty.	Part No.
220V Power Cord	1	09199700
10 Amp Mini Fuse	1	21200002
7.5 Amp Mini Fuse	1	21200003
Hood Release Cable	1	06900730
80W-140 Synthetic Gear Oil	1	00981400
Left / Center Mower Blade (Model 997002)	2	09372000
Right Mower Blade (Model 997002)	1	09372100
Mower Blade (Model 997001)	3	09182100

CHECK MOWER BLADES

Check blades for wear. Replace or sharpen as needed.



CAUTION: AVOID INJURY. Use sturdy gloves or padding to protect hands when working with mower blades. Rotation of one blade rotates the other blades.

Remove Blades

1. Remove key and wait for moving parts to stop and for hot parts to cool.
2. Remove all batteries from mower.
3. Chock wheel. Strap and clamp unit onto lift, if used.

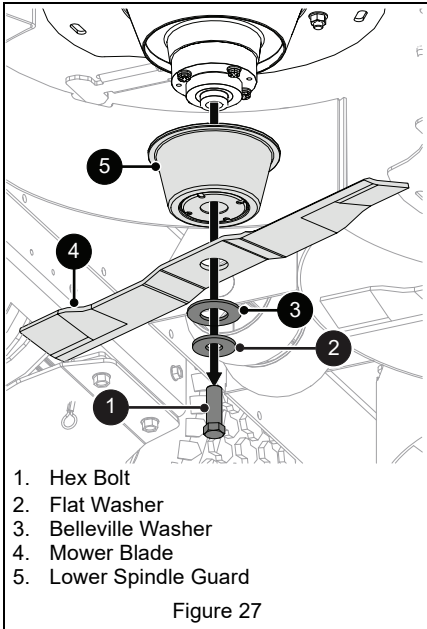
IMPORTANT: Right blade on rear-discharge decks is retained with a left-hand thread bolt.

An impact wrench is required to remove blade bolts.

See Figure 27.

4. Remove blade assembly:

- *Model 997001 only (side-discharge):*
Turn hex bolts counter-clockwise to loosen. Remove hardware, blades, and lower spindle guard. Sharpen or discard blades and retain hardware and lower spindle guard.
- *Model 997002 only (rear-discharge):* To loosen, turn hex bolts counter-clockwise for left and center blades and clockwise for right blade. Remove hardware, blades, and lower spindle guard. Sharpen or discard blades and retain hardware and lower spindle guard.



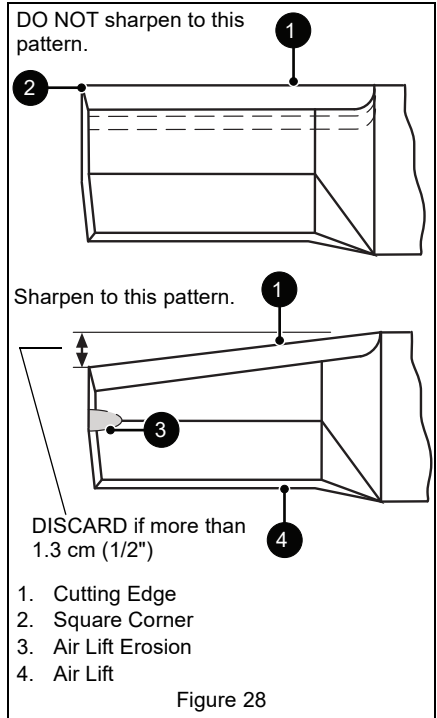
Sharpen Blades



CAUTION: DO NOT sharpen blades while attached to unit.

1. Remove blades. Discard blades if:
 - More than 1.3 cm (1/2") of metal is removed.
 - Air lifts are eroded.
 - Blades are bent or broken.

2. File or grind an equal amount of metal from each cutting edge of the blade until sharp. DO NOT change angle of cutting edge or round the corner of the blade. See Figure 28.



CAUTION: Unbalanced blades cause excessive vibration and eventual damage to unit. Balance blades before reinstalling on unit. NEVER weld or straighten blades.

3. Check blade balance by sliding an unthreaded bolt through center hole. Hold the bolt level. If blade does not remain horizontal, sharpen the heavy end until blade is balanced.

Install Blades

See Figure 27.



CAUTION: Mating surfaces between spindle, lower spindle guard, blade and washer MUST be free of debris to ensure correct tightness and alignment.

- Secure lower spindle guards and blades to spindles using hardware removed earlier.
 - Model 997001 only:* Turn hex bolts clockwise to tighten.
 - Model 997002 only:* To tighten, turn hex bolts clockwise for left and center blades and counter-clockwise for right blade.
- Torque bolts to 156 N•m – 217 N•m (115 lb-ft – 160 lb-ft).

CHECK SAFETY INTERLOCK SYSTEM

Check function of the Safety Interlock System by performing the tests below. Contact an authorized Ariens dealer for repair if any of the tests fail.

The unit should not start when the following conditions exist:

- Key switch is turned to the on position and hood assembly is open.

The Live-to-Drive feature should activate (see *Home Screen* on page 19) when all of the following conditions exist:

IMPORTANT: Charger must be disconnected.

- Parking brake is engaged.
- Operator presence switch (OPC) is engaged (operator in seat).
- Steering levers are in neutral position.
- Hood assembly is closed.

CHANGE GEARCASE OIL



CAUTION: Use of alternate gear oils could result in premature wear of gearcase components and will void the gearcase warranty.

- Operate unit for a few minutes to warm gearcase oil.
- Remove key and wait for all moving parts to stop and for hot parts to cool.
- Chock front wheels and support unit so both drive wheels are off the ground.
- Position supports such as blocks or jack stands under the frame.
- Remove drive wheel. See Figure 29.

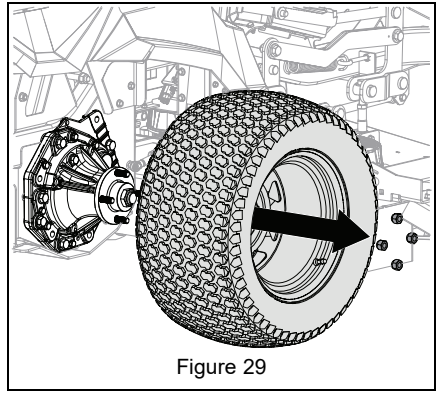


Figure 29

- Position container under drain plug to catch used oil.
See Figure 30.
- Remove drain plug from gearcase and allow oil to drain. Retain drain plug for reinstallation.
- Wipe drain plug and mounting surface clean.
- Remove oil fill plug for proper ventilation.

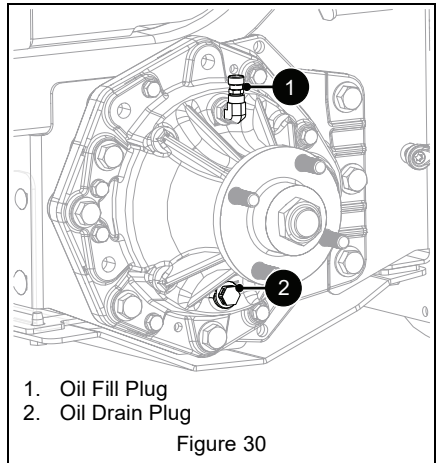


Figure 30

- Reinstall oil drain plug. Torque to 180.3 N•m – 221.0 N•m (133 in-lbs – 163 in-lbs).
- Fill gearcase with 200 mL of 80W-140 synthetic gear oil (Ariens p/n 00981400).
- Reinstall oil fill plug. Torque to 180.3 N•m – 221.0 N•m (133 in-lbs – 163 in-lbs).
- Repeat steps 6 – 12 for other transaxle.

14. Reinstall wheel assemblies. Torque wheel lug nuts to 81.3 N•m – 122.0 N•m (60 lb-ft – 90 lb-ft).
15. Remove unit from jack stands and remove wheel chocks.

CHECK FAULTS / WARNINGS

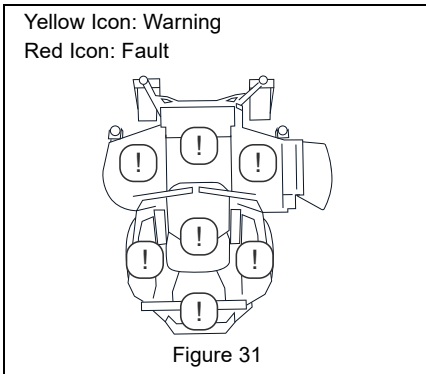
To determine if a fault / warning is present:

1. Turn the key switch to the on position.
2. Navigate to the maintenance screen on the digital display (see *Maintenance Screen* on page 21). If a fault or warning code is present, see *Fault Codes* on page 37 or *Warnings* on page 38.

Fault / Warning Locations

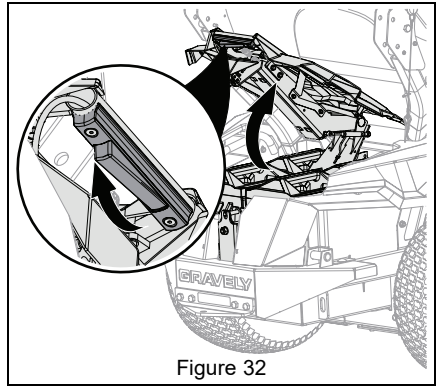
Location of issue causing fault / warning notification (see Figure 31):

- VCM = Center
- Battery = Rear
- Deck Controller = Left / Right / Center Deck
- Deck Motor = Left / Right / Center Deck
- Traction Controller = Left / Right Wheel
- Traction Motor = Left / Right Wheel
- Steering Sensors = Center



BATTERY ACCESS

1. Remove key and wait for moving parts to stop and for hot parts to cool.
2. Open hood assembly. See Figure 32.



CHECK PARKING BRAKE

1. Engage parking brake lever.
2. Remove key and wait for moving parts to stop and for hot parts to cool.
3. Push unit forward.
 - If unit does not move forward, no further action is needed.
 - If unit easily moves forward, contact an authorized Ariens EV dealer.

CHECK TIRE PRESSURE

See *Specifications* on page 44 for recommended tire pressure.



WARNING: AVOID INJURY.

Explosive separation of tire and rim parts is possible.

- DO NOT inflate tires above the recommended pressure.
- DO NOT inflate tires with a compressor; use a hand pump.
- DO NOT stand in front of tire assembly when inflating. Use a clip-on chuck and extension hose long enough to allow you to stand to one side.

CHECK FASTENERS

Check for loose or missing hardware.

LUBRICATE SEAT

See Figure 33.

1. Remove key and wait for moving parts to stop and for hot parts to cool.
2. Move steering levers outward.
3. Remove batteries.

- Using a suitable tool, rotate seat latch to unlock seat plate.
- Rotate seat forward.

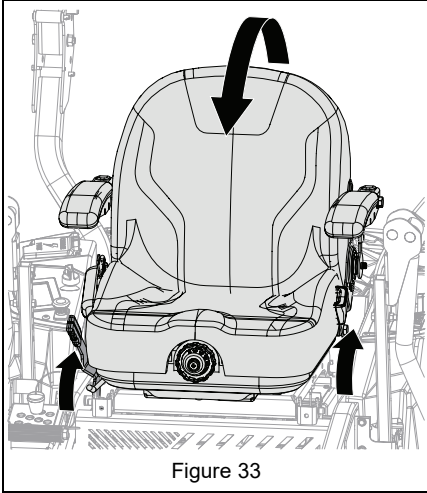


Figure 33

- Apply grease to seat tracks through slots under seat plate. See Figure 34.

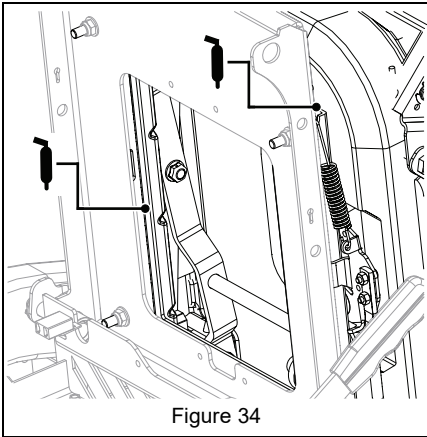


Figure 34

- Return seat to operating position and slide seat back and forth to spread grease along tracks.

CHECK MOWER BLADES

Check blades for wear and damage. Replace or sharpen as needed.



CAUTION: AVOID INJURY. Use sturdy gloves or padding to protect hands when working with mower blades.



CAUTION: Unbalanced blades cause excessive vibration and eventual damage to unit. Balance blades before reinstalling on unit. NEVER weld or straighten blades.

CHECK BATTERY BALANCE

- Remove key and wait for moving parts to stop and for hot parts to cool.
- Ensure batteries are installed in the machine. See *Install Batteries* on page 32.

IMPORTANT: If multiple batteries are installed in the machine, they must be within 12% SOC to operate together.

- Refer to the digital display. If battery balancing is required, see *Auto-Balance Feature* on page 30.

AUTO-BALANCE FEATURE

Auto-balance feature occurs under the following conditions:

- Key switch is in the off position.
- Hood assembly is closed.
- Two or more batteries have at least a 12% difference in SOC.

IMPORTANT: If battery charge levels vary significantly, connect a battery charger. The charger will always charge low SOC batteries first. See *Charge Batteries* on page 31.

Fast Balance Feature

The fast balance feature balances two batteries at a time that are within a 30% SOC. Refer to the digital display for remaining balance time.

IMPORTANT: Slow balancing will occur after fast balancing is complete. See *Slow Balance Feature* on page 30.

Slow Balance Feature

The slow balance feature operates on all batteries in the system. Batteries can be at any SOC to slow balance.

IMPORTANT: Batteries within 30% SOC will begin to fast balance. See *Fast Balance Feature* on page 30.

CHECK SOC

To check battery SOC, refer to the digital display with key switch turned on or check battery LED lights. See *Check Battery LED Lights* and *Charging Status* on page 31.

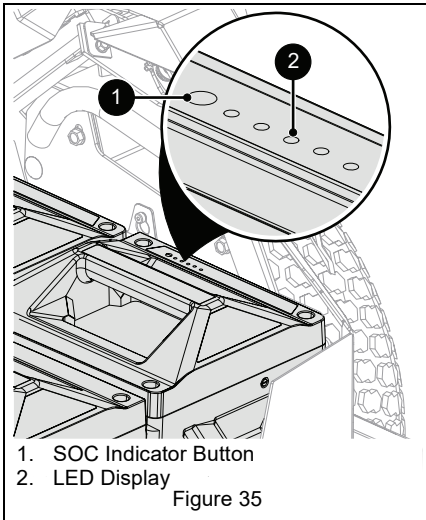
Check Battery LED Lights

See Figure 35.

IMPORTANT: Battery LED lights indicate battery SOC in 20% increments and automatically turn on when batteries are charging.

1. Open hood assembly. See *Battery Access* on page 29.
2. Press and hold SOC indicator button until LED lights display. See *Charging Status* on page 31 to determine if batteries require charging.

NOTICE: If there is a battery fault, the battery fault indicator will display a fault code instead of a charge status. See *Fault Codes* on page 37. If any battery fault indicators not listed on page 37 are present, open hood, remove batteries, and reinstall batteries. If fault persists, contact an authorized Gravley EV dealer. Charge status will return when fault is cleared.



Charging Status

LED display should blink and then transition to a solid color within SOC range indicated below. Once charger is removed, LED display will turn off.

Charging Status	SOC
1 LED Light	0% – 20%
2 LED Lights	20% – 40%
3 LED Lights	40% – 60%
4 LED Lights	60% – 80%
5 LED Lights	80% – 99%
5 LED Lights *	100%

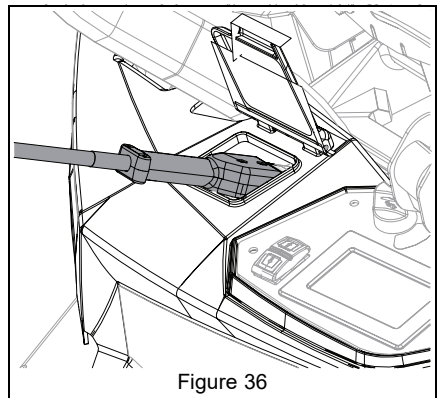
* Displays for one minute after charge completion.

CHARGE BATTERIES

IMPORTANT: AriensCo recommends changing all four batteries at the same time and replacing all batteries with batteries at the same state of charge. Failure to change batteries at the same state of charge may require batteries to auto balance in the machine.

IMPORTANT: Follow the recommended battery charging temperatures. DO NOT charge batteries in temperatures lower than 3° C (37° F) or above 40° C (104° F).

1. Engage parking brake and place steering levers in neutral position.
2. Ensure hood and seat are in the operating position.
3. Remove key and wait for moving parts to stop and for hot parts to cool.
4. Lift charging port cover.
5. Connect charger connector to charging port on the machine. See Figure 36.

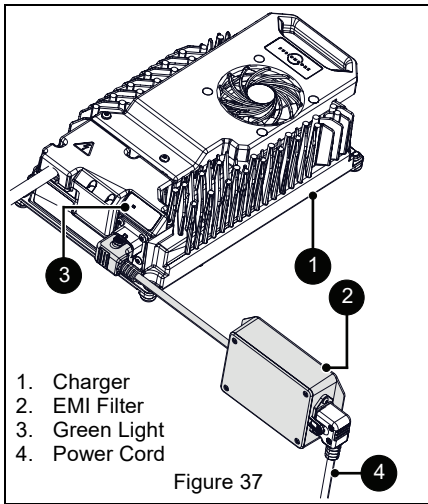


See Figure 37.

6. Connect EMI filter to charger.
7. Connect 110V or 220V power cord to EMI filter.
8. Connect power cord to 110V or 220V wall outlet.

IMPORTANT: Avoid using electrical extension cords. If an extension cord must be used, use one that is UL listed or CSA certified, rated for a minimum of 13 amps, grounded and labeled as suitable for outdoor use.

9. Verify that charger is functioning by observing the flashing green light on the charger (battery synchronization may take up to 30 seconds).
10. Continue to charge batteries until light on charger is no longer flashing. Refer to digital display for remaining charge time and charging exit options.



11. Disconnect battery charger from wall outlet.
12. Disconnect battery charger from charge port.

Sleep Mode

Batteries will not charge if batteries have entered sleep mode. Batteries enter sleep mode after extended periods of time (approximately 20 minutes) if:

- Key switch is in the on position
- Charger is plugged into the machine but power from outlet is not present.

To wake batteries from sleep mode, perform one of the following steps:

- Open and close hood assembly.
- Press SOC indicator button (see Figure 35).
- Power cycle unit (turn ignition key to the off position and then return it to the on position).

Limp Mode



WARNING: When cycling PTO switch, unit will continue to use remaining 5% of battery SOC until batteries are depleted.

Unit enters limp mode (blades no longer operate) when PTO switch is engaged and battery SOC reaches 5% or lower (see Blade Status under *Home Screen* on page 20). This feature allows operator sufficient time to return unit to a charger after resetting blades. To reset blades, cycle PTO switch (push PTO switch down to the off position and then return it to the on position). See *Charge Batteries* on page 31 for battery charging details.

ADJUSTMENTS



WARNING: AVOID INJURY. Read and understand the *Safety* section before proceeding.

REMOVE BATTERIES

1. Open hood assembly. See *Battery Access* on page 29.
2. Starting with the two rearmost batteries, vertically lift batteries from busbar using the supports on either side of battery tray.

INSTALL BATTERIES

1. Open hood assembly. See *Battery Access* on page 29.

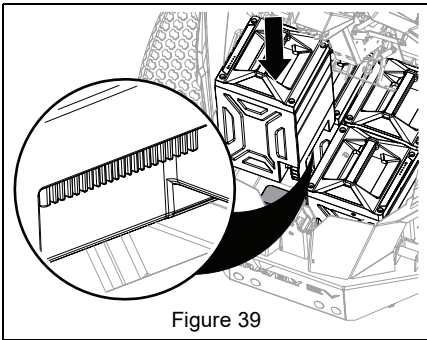
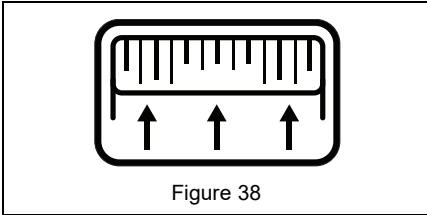
See Figure 39.

2. Using two hands, carefully guide batteries into busbar until fully seated, starting with the two forward-most batteries. If properly installed, LED lights will illuminate, confirming recognition of software.

NOTICE: AVOID DAMAGE! Batteries must be carefully inserted vertically into busbar with battery connection pins facing the center of the machine. **DO NOT** drag batteries across busbar fins to position.

Refer to the following battery installation instructions before installing batteries:

- If two batteries are installed in the machine, install busbar cover. See *Install Busbar Cover* on page 33.
- Install two to four batteries in the machine whenever possible. Using one or three batteries will expose busbar terminals to grass, debris and moisture.
- Install at least two batteries to drive and mow. Installing one battery allows for drive-only operation. For drive-only operation, a warning will be present on the digital display (see *Warnings* on page 38).

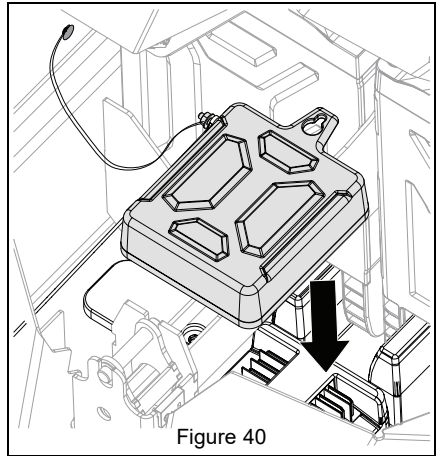


IMPORTANT: After installing batteries, press SOC indicator to ensure batteries wake and balance. See *Check SOC* on page 31.

INSTALL BUSBAR COVER

NOTICE: To prevent grass, debris and moisture build-up on busbar terminals, use busbar cover when two batteries are in the machine.

1. Remove busbar cover from rear fender on either side of unit.
2. Clear any accumulated debris from inside cover.
3. Position cover over exposed battery busbar pins. See Figure 40.
4. Close hood assembly and ensure handle is securely latched.



ADJUST SEAT



WARNING: AVOID INJURY.
Make all seat adjustments with the unit stopped, parking brake engaged and key switch in the off position.

See Figure 41.

Ride Adjustment Knob

NOTICE: To avoid damage, DO NOT set ride adjustment knob outside of the maximum range.

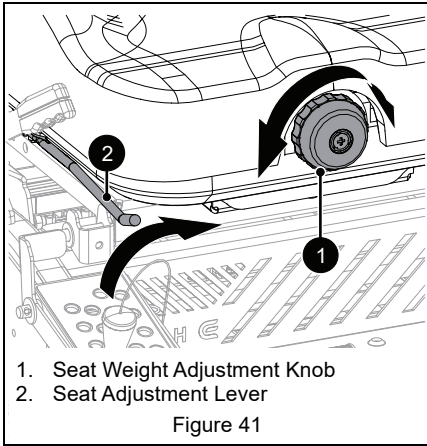
1. Set ride adjustment knob to the weight of the operator.

For further adjustment:

- Turn ride adjustment knob clockwise for a firmer ride.
- Turn ride adjustment knob counterclockwise for a softer ride.

Set Seat Position

1. While seated, pull seat adjustment lever inward and slide seat forward or backward to desired position.
2. Release lever and slide seat slightly forward or backward to lock position.



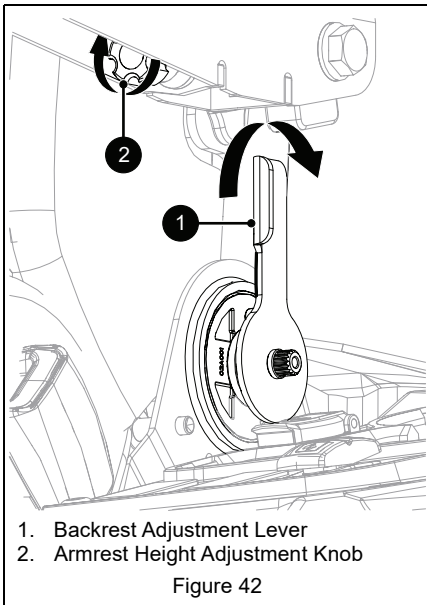
See Figure 42.

Set Backrest Angle

Pull lever on left side of seat to adjust backrest angle.

Set Armrest Angle

Turn height adjustment knob clockwise to raise the front of armrest or counterclockwise to lower front of armrest.



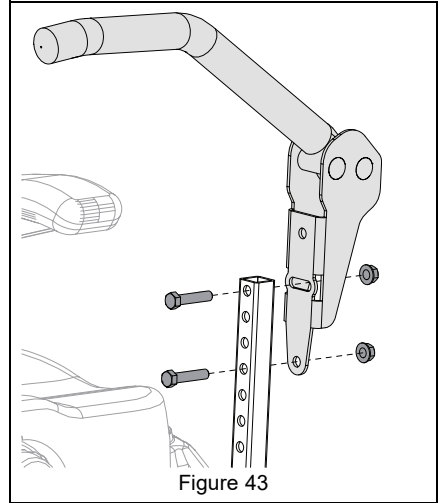
ADJUST STEERING LEVERS

Adjust Height

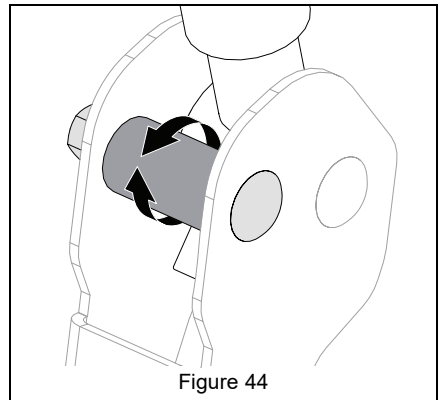
The steering lever height may be adjusted for operator comfort.

See Figure 43.

1. Remove key and wait for moving parts to stop and for hot parts to cool.
2. Remove steering lever hardware and remove steering lever from lower control arm.
3. Position steering lever at desired height and align with lower control arm. Secure with original hardware.



4. Adjust steering lever position.
5. Turn eccentric spacer so levers are at the same height and have a 1.3 cm – 2.5 cm (1/2" – 1") gap between lever ends. See Figure 44.



If there is more than 3.2 mm (1/8") between the horizontal alignment of the steering levers, align the levers.

6. Remove key and wait for moving parts to stop and for hot parts to cool.
7. Engage parking brake.
8. Loosen mounting hardware, align levers and tighten hardware. See Figure 45.

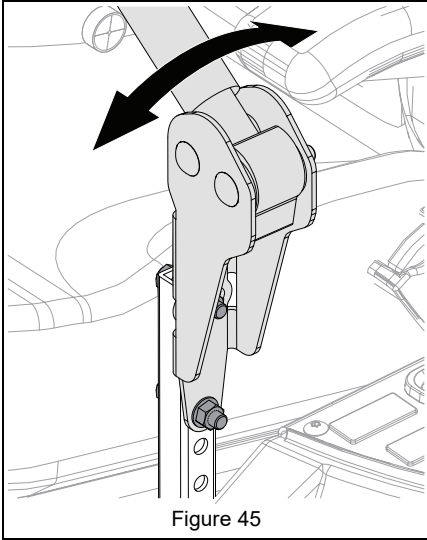


Figure 45

Adjust Forward Position

The steering lever forward position may be adjusted for operator comfort.

1. Remove key and wait for moving parts to stop and for hot parts to cool.
2. Loosen mounting hardware on steering lever assemblies.
3. Place steering levers in desired position:
 - Gently push levers forward for greater distance from operator.
 - Gently pull levers back for closer distance to operator.
4. Tighten hardware.

ADJUST UNIT TO DRIVE STRAIGHT

Adjust Tire Pressure

1. Remove key and wait for moving parts to stop and for hot parts to cool.
2. Check tire pressures. If needed, adjust to recommended pressures. See *Specifications* on page 44.
3. Check tracking.

- If unit does not track straight, increase tire pressure to the drive wheel of the side it moves toward.

IMPORTANT: DO NOT exceed maximum tire pressure listed on tire sidewall.

- If increasing tire pressure does not correct tracking, adjust the limiter bolts as directed below.

Adjust Limiter Bolts

See Figure 46.

IMPORTANT: Unit ships with limiter bolts set to maximum drive speed.

Limiter bolts can be adjusted to increase or decrease drive wheel speeds. To adjust:

1. Loosen jam nut.
 - Turn limiter bolt counterclockwise to increase maximum drive wheel speed on that side.
 - Turn limiter bolt clockwise to reduce maximum drive wheel speed on that side.
2. Tighten jam nut.

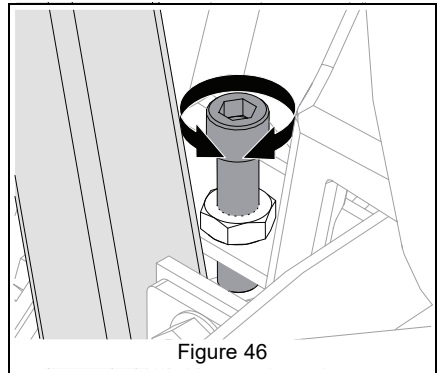


Figure 46

3. Align steering levers. See *Adjust Steering Levers* on page 34.

CALIBRATE STEERING SENSORS

In the event of a steering sensor, electrical, or mechanical fault, steering sensor calibration may be required using the user display.

NOTICE: If calibration does not properly set neutral, forward, or reverse, contact an authorized Ariens EV dealer.

Steering Sensor Positions

The digital display will prompt the following steering positions during the steering sensor calibration sequence (see *Steering Sensor Calibration Sequence* on page 36):

- LN / RN: Left Neutral / Right Neutral
- LF / RF: Left Forward / Right Forward
- LR / RR: Left Reverse / Right Reverse

IMPORTANT: See *Steering Sensor Calibration Screen* on page 22 for additional user display details.

Steering Sensor Calibration Sequence

1. Navigate to the maintenance screen on the digital display. See *Maintenance Screen* on page 21.
2. Hold display switch down (approximately 10 seconds) until steering sensor calibration screen appears. See *Steering Sensor Calibration Screen* on page 22.

Follow the calibration sequence prompted on the digital display:

IMPORTANT: Refer to the digital display for to determine if levers are properly positioned and step is complete.

3. Hold steering levers in neutral.
4. Position left steering lever in the forward-most position.
5. Position left steering lever in the rear-most position.
6. Position right steering lever in the forward-most position.
7. Position right steering lever in the rear-most position.
8. Position steering levers in neutral.
9. Use the navigation switch to save or cancel the steering sensor parameters.
10. Wait until loading screen and splash screen are complete.
11. Power cycle unit to clear calibration faults (turn ignition key to the off position and then return it to the on position).

FAULT / WARNING CODE INDEX

First Digit: Location	0 = Other 1 = Left 2 = Center 3 = Right
Second Digit: Component	1 = VCM 2 = Battery 3 = Deck Motor 4 = Deck Controller 5 = Drive Motor 6 = Drive Controller 7 = Steering Sensor
Last Three Digits: Fault / Warning Identification Number	See <i>Fault Codes</i> on page 37 and <i>Warnings</i> on page 38. If your fault or warning code is not listed, contact an authorized Ariens EV dealer, as service may be needed.

FAULT CODES

IMPORTANT: See *Fault / Warning Code Index* on page 37 for fault and warning code details.

Location	Component	Dealer Description
0 = Other 1 = Left 2 = Center 3 = Right	1 = VCM 2 = Battery 3 = Deck Motor 4 = Deck Controller 5 = Drive Motor 6 = Drive Controller 7 = Steering Sensor	
01048		VCM reported a center deck controller fault.
01050		VCM reported a left deck controller fault.
01056		VCM reported a right deck controller fault.
01058		VCM reported a left traction controller fault.
01060		VCM reported a left traction controller fault.
<p>Operator's Note: These faults do not disable the unit. If fault exists and temperature is below 0°C (32°F), no action is needed. If fault exists, no other controller faults exist, and temperature is above 0°C (32°F), contact an authorized Ariens EV dealer, as a temperature sensor failure has occurred in the identified component.</p>		

WARNINGS

IMPORTANT: Warning codes do not require service or troubleshooting. Warning codes display when unit is not within standard operating conditions.

IMPORTANT: See *Fault / Warning Code Index* on page 37 for fault and warning code details.

Location 0 = Other 1 = Left 2 = Center 3 = Right	Component 1 = VCM 2 = Battery 3 = Deck Motor 4 = Deck Controller 5 = Drive Motor 6 = Drive Controller 7 = Steering Sensor	Dealer Description	Dealer Troubleshooting
02131		Battery reported one battery discharge mode.	Add another battery to the system if operator wants to engage deck.
02132		Battery reported end of life warning.	Battery is close to end of life.
02133		Battery reported end of life.	Battery is at end of life.
02149		Battery reported end of life warning.	Battery is close to end of life.
02150		Battery reported end of life.	Battery is at end of life.
02165		Battery reported end of life warning.	Battery is close to end of life.
02166		Battery reported end of life.	Battery is at end of life.
02181		Battery reported end of life warning.	Battery is close to end of life.
02182		Battery reported end of life.	Battery is at end of life.
11065		VCM reported left deck stall.	This warning displays when a deck motor has stalled. Cycle PTO to resume cutting. To troubleshoot: <ol style="list-style-type: none"> 1. Confirm phase wiring is connected properly from motor to controller. 2. Reduce cutting load by reducing vehicle speed or cut height. 3. Verify machine is powered down, check blade for obstruction or material buildup on spindle or blade.
13062		Left deck motor overheating warning.	<ol style="list-style-type: none"> 1. Check motor and controller phase wire connections for open circuit. 2. Check to ensure blade rotates freely. 3. Reduce cutting load. 4. Clean around debris around motor and controller.

WARNINGS

IMPORTANT: Warning codes do not require service or troubleshooting. Warning codes display when unit is not within standard operating conditions.

IMPORTANT: See *Fault / Warning Code Index* on page 37 for fault and warning code details.

Location 0 = Other 1 = Left 2 = Center 3 = Right	Component 1 = VCM 2 = Battery 3 = Deck Motor 4 = Deck Controller 5 = Drive Motor 6 = Drive Controller 7 = Steering Sensor	Dealer Description	Dealer Troubleshooting
14063		Left deck controller overheating warning.	<ol style="list-style-type: none"> 1. Check motor and controller phase wire connections for open circuit. 2. Reduce cutting load. 3. Clean around debris around motor and controller.
15062		Left traction motor overheating warning.	<ol style="list-style-type: none"> 1. Check motor and controller phase wire connections for open circuit. 2. Check to ensure wheel rotates freely. Check brake functionality by turning machine off and use mechanical override to freely move wheel. 3. Reduce load. 4. Clean debris around motor and controller.
16063		Left traction controller overheating warning.	<ol style="list-style-type: none"> 1. Check motor and controller phase wire connections for open circuit. 2. Reduce load. 3. Clean debris around motor and controller.
21066		VCM reported center deck stall.	<p>This warning displays when a deck motor has stalled. Cycle PTO to resume cutting. To troubleshoot:</p> <ol style="list-style-type: none"> 1. Confirm phase wiring is connected properly from motor to controller. 2. Reduce cutting load by reducing vehicle speed or cut height. 3. Verify machine is powered down, check blade for obstruction or material buildup on spindle or blade.

WARNINGS

IMPORTANT: Warning codes do not require service or troubleshooting. Warning codes display when unit is not within standard operating conditions.

IMPORTANT: See *Fault / Warning Code Index* on page 37 for fault and warning code details.

Location 0 = Other 1 = Left 2 = Center 3 = Right	Component 1 = VCM 2 = Battery 3 = Deck Motor 4 = Deck Controller 5 = Drive Motor 6 = Drive Controller 7 = Steering Sensor	Dealer Description	Dealer Troubleshooting
23062		Center deck motor overheating warning.	<ol style="list-style-type: none"> 1. Check motor and controller phase wire connections for open circuit. 2. Check to ensure blade rotates freely. 3. Reduce cutting load. 4. Clean debris around motor and controller.
24063		Center deck controller overheating warning.	<ol style="list-style-type: none"> 1. Check motor and controller phase wire connections for open circuit. 2. Reduce cutting load. 3. Clean debris around motor and controller.
31067		VCM reported right deck stall.	<p>This warning displays when a deck motor has stalled. Cycle PTO to resume cutting. To troubleshoot:</p> <ol style="list-style-type: none"> 1. Confirm phase wiring is connected properly from motor to controller. 2. Reduce cutting load by reducing vehicle speed or cut height. 3. Verify machine is powered down, check blade for obstruction or material buildup on spindle or blade.
33062		Right deck motor overheating warning.	<ol style="list-style-type: none"> 1. Check motor and controller phase wire connections for open circuit. 2. Check to ensure blade rotates freely. 3. Reduce cutting load. 4. Clean debris around motor and controller.
34063		Right deck controller overheating warning.	<ol style="list-style-type: none"> 1. Check motor and controller phase wire connections for open circuit. 2. Reduce cutting load. 3. Clean debris around motor and controller.

WARNINGS

IMPORTANT: Warning codes do not require service or troubleshooting. Warning codes display when unit is not within standard operating conditions.

IMPORTANT: See *Fault / Warning Code Index* on page 37 for fault and warning code details.

Location 0 = Other 1 = Left 2 = Center 3 = Right	Component 1 = VCM 2 = Battery 3 = Deck Motor 4 = Deck Controller 5 = Drive Motor 6 = Drive Controller 7 = Steering Sensor	Dealer Description	Dealer Troubleshooting
35062		Right traction motor overheating warning.	<ol style="list-style-type: none"> 1. Check motor and controller phase wire connections for open circuit. 2. Check to ensure wheel rotates freely. Check brake functionality by turning machine off and use mechanical override to freely move wheel. 3. Reduce load. 4. Clean debris around motor and controller.
36063		Right traction controlling overheating warning.	<ol style="list-style-type: none"> 1. Check motor and controller phase wire connections for open circuit. 2. Reduce load. 3. Clean debris around motor and controller.

TROUBLESHOOTING

Problem	Probable Cause	Correction
System does not start.	Safety Interlock System is not engaged or is faulty.	Check Safety Interlock System. See <i>Safety Interlock System</i> on page 16.
	Batteries are not charged.	Charge batteries. See <i>Charge Batteries</i> on page 31.
	Electrical system is faulty.	Contact an authorized Ariens EV dealer.
Unit does not drive.	Live-to-Drive feature is not activated before parking brake is released.	Ensure Live-to-Drive feature is activated before releasing parking brake. See <i>Safety Interlock System</i> on page 16.
	10A fuse is blown.	Replace fuse. Contact an authorized Ariens EV dealer if fuse fails again.
	Fault code is present.	Contact an authorized Ariens EV dealer.
	Brake wiring is faulty.	Contact an authorized Ariens EV dealer.
	Parking brake is faulty.	Contact an authorized Ariens EV dealer.
Unit does not operate at full speed.	Battery SOC is too low.	Charge batteries. See <i>Charge Batteries</i> on page 31.
	High / low speed switch is set to slow speed.	Set switch to high speed drive. See <i>High / Low Speed Switch</i> on page 14.
PTO malfunctions.	Operator presence switch is not engaged.	Activate switch by sitting on operator seat.
	Operator presence switch is faulty.	Contact an authorized Ariens EV dealer.
	PTO switch, wiring, or connectors are faulty.	Contact an authorized Ariens EV dealer.
	Build-up of debris under mower deck.	Clean underside of mower deck.
	Blades are locked.	Disengage PTO switch and restart the system.
Unit moves with parking brake engaged.	Brake bypass is engaged.	Release parking brake bypass lever.
	Parking brake is faulty.	Contact an authorized Ariens EV dealer.
Unit does not drive straight.	Tire pressure is incorrect.	Check tire pressure. See <i>Specifications</i> on page 44.
	Steering levers need adjustment.	See <i>Adjust Unit to Drive Straight</i> on page 35.
	Steering levers need to be recalibrated.	See <i>Calibrate Steering Sensors</i> on page 36.
Poor cutting quality.	Mower blades not level or mower deck pitch is incorrect.	Level and adjust pitch of mower deck. Refer to your unit's Service Manual.
	Mower blades are dull or faulty.	Sharpen or replace mower blades. Refer to your unit's Service Manual.
	Mowing speed is too fast.	Drive slower when cutting grass.
	Cutting height is too low.	Do not set height of cut too low. For very tall grass, mow twice.

STORAGE

SHORT-TERM STORAGE

1. Allow unit to cool and clean with compressed air or a dry cloth.

NOTICE: DO NOT clean unit with water. To avoid damage to electrical components and motors, clean unit with compressed air or a dry cloth.

2. Tighten all hardware to correct specifications.
3. Inspect unit for visible signs of wear or damage. Repair as needed.
4. Turn key switch to off position and remove key.
5. Store unit in a cool, dry, protected area. DO NOT store unit outdoors.

NOTICE: DO NOT store batteries in a container where they may short-circuit each other or be short-circuited by other metal objects.

LONG-TERM STORAGE

1. Perform short-term storage procedures.
2. Lubricate as directed in *Maintenance* on page 26.
3. Touch-up all scratched painted surfaces.
4. Store unit in a cool, dry, protected area. DO NOT store unit outdoors.
5. Discharge batteries and recharge to less than 80% SOC.
6. Follow the recommended battery storage temperatures:
 - *3 Months:* DO NOT store batteries in temperatures lower than -20° C (-4° F) or above 45° C (113° F).
 - *12 Months:* DO NOT store batteries in temperatures lower than -20° C (-4° F) or above 20° C (68° F).

NOTICE: After extended periods of storage, it may be necessary to charge and discharge batteries at least three times to obtain maximum performance.

ACCESSORIES

See your Ariens EV dealer for a complete list of compatible accessories and attachments for your unit.

Description	Part No.
60 Mulch SD Kit	79700200
LED Light Kit	79700400
Beacon Light Kit	79700500
Charger Kit – 220	79700600
Fast Charger with Y Harness Kit	79701300
EV Battery (1 Pack) Kit	89700100
Offboard Charger Kit – 220	89700300

BATTERY DISPOSAL

When a battery no longer takes a charge, the battery will need to be recycled. Contact an authorized Ariens EV dealer to recycle battery.

SPECIFICATIONS

Model Number	997301	997302
Description	Zenith E 60 CE Side Discharge	Zenith E 60 CE Rear Discharge
Batteries	Fusion Core Lithium Ion	
Wheel Drive Motors – kW	5 per motor	
Spindle Motors – kW	3.5 per motor	
Transmission		
Type	Electric Transaxles	
Oil	80W-140 synthetic gear oil (Ariens p/n 00981400)	
Drive		
Forward Maximum – km/h (mph)	17.7 (11.0)	
Reverse Maximum – km/h (mph)	8.8 (5.5)	
Turning Radius	Zero	
Brakes	Electric Parking	
Size and Weight		
Length – cm (in)	210.8 (83.0)	
Width – cm (in) • Without Discharge Chute • With Discharge Chute	160.0 (63) 190.5 (75)	160.0 (63) 160.0 (63)
Height – cm (in) • With ROPS extended • With ROPS folded	182.9 (72.0) 124.5 (49.0)	
Weight – kg (lbs) • With 4 Batteries, Without Mulch Kit	576.1 (1270)	591.0 (1303)
Tires		
Front Tire Size – in	13 x 6.5-6 (Semi-Pneumatic)	
Rear Tire Size – in	22 x 12-12 (Radial)	
Recommended Front Tire Pressure – kPa (psi)	110.3 – 137.9 (16 – 20)	
Recommended Rear Tire Pressure – kPa (psi)	82.7 – 103.4 (12– 15)	
Mower Deck		
Cutting Height – cm (in)	3.8 – 12.7 (1.5 – 5.0)	
Cutting Height Increments	0.635 (0.25)	
Cutting Width – cm (in)	152.4 (60)	
Mower Deck Lift	Mechanical Pin Lock	

CE Sound and Vibration (Ref. EN ISO 5395-3:2013 + A1:2017 + A2:2018)		
Oper.Ear Sound Pressure (Lpa) in dBA	87	
Uncertainty in dBA	2.51	2.54
Measured sound power level (Lwa) in dBA	102	101
Uncertainty in dBA	1	
Guaranteed Sound Power level (Lwa) in dBA	103	102
Vibration Measure (m/s ²) at Operator Hands	0.31	0.29
Uncertainty in m/s ²	0.16	0.15
Vibration Measure (m/s ²) at Operator Seat	0.35	0.28
Uncertainty in m/s ²	0.18	0.14



ARIENS®

Electric Outdoor Power Equipment Limited Warranty

AriensCo warrants to the **original purchaser** that Ariens brand products purchased on or after 1/1/2021 will be free from defects in material and workmanship for the time period noted in the chart below. Equipment put to personal use around a single household or residence is considered "Residential Use." Equipment put to any business use (agricultural, commercial, or industrial) or used at multiple locations is considered "Commercial Use."

If any product is rented or leased, then the duration of these warranties shall be 90 days after the date of purchase.

An authorized Ariens EV dealer will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations and exclusions set forth herein. Such repair or replacement will be free of charge (labor and parts) to the original purchaser; except as noted below. Pick-up and delivery are at the owner's expense.

The warranty code is found on the model and serial number identification label on the mower, off-board battery charger or serialized battery.

Warranty Code	Product Group	Warranty Period
AC	Batteries	3 Years.
AD	Off-Board Battery Chargers	5 Years.
EA	Zenith-E Mowers	5 Years or 1500 Hours, Whichever Comes First. No Hour Limit for First 2 Years.

Special Limitations

The charts below detail special **limitations** to this warranty.

Warranty Term Limitations	Warranty Period
Cloth, plastic and rubber components, mower blades and tires.	Components are covered for manufacturer's defect only, not wear.
Digital display panel and electric failsafe parking brake.	2 Years.
Traction drive gear oil.	Oil is covered for warranty repairs only, not maintenance.

Exclusions – Items Not Covered by This Warranty

- Parts that are not genuine Ariens service parts are not covered by this warranty and may void the warranty if the parts result in premature wear or damage to the product.
- Damages resulting from the installation or use of any part, accessory, or attachment which is not approved by the AriensCo for use with product(s) identified herein are not covered by this warranty.
- Any misuse, alteration, improper assembly, improper adjustment, neglect, or accident which requires repair is not covered by this warranty.
- **Any tampering with the hour meter voids any and all warranties.**
- Products are designed to the specifications in the area that the product was originally distributed. Different areas may have significantly different legal and design requirements. This warranty is limited to the requirements in the area in which the unit was originally distributed. AriensCo does not warrant this product to the requirements of any other area. Warranty service is limited to service within the area originally distributed.
- In countries other than the United States and Canada, contact the AriensCo dealer for warranty policies that govern within your country. Rights may vary from country to country and within any one country.

Parts and Accessories

Service replacement parts and non-serialized accessories are warranted for 90 days from date of purchase. Labor is not included.

Customer Responsibilities

Register the product immediately at the time of sale. If the dealer does not register the product, the customer must register the unit on-line at www.ariens.com.

To obtain warranty service, the **original purchaser** must:

- Ensure that the maintenance and adjustments explained in the Operator's Manual are routinely completed.
- Promptly notify AriensCo or an authorized Ariens EV dealer of the need for warranty service.
- Transport the product to and from the place of warranty service at owner's expense.
- Have the warranty service performed by an authorized Ariens EV dealer.

To find an authorized dealer use the dealer locator on our websites, or contact us by mail or phone.

Globally (Except Australia or New Zealand):	Australia:	New Zealand:
AriensCo 655 W. Ryan Street Brillion, WI 54110 Phone: (920) 756 - 4688 www.ariensco.com	Masport Australia Pty Ltd 27 Commercial Drive Dandenong South Victoria 3175 Australia Phone: 1300 366 225 www.masport.com.au	Masport Ltd 1-37 Mt. Wellington Highway, Panmure, Auckland 1060 New Zealand Phone: 0800 627 7678 www.masport.co.nz

Disclaimer

AriensCo may from time to time change the design of its products. Nothing contained in this warranty shall be construed as obligating the AriensCo to incorporate such design changes into previously manufactured products, nor shall such changes be construed as an admission that previous designs were defective.

Limitation of Remedy and Damages

AriensCo liability under this warranty, and under any implied warranty that may exist, is limited to repair of any defect in workmanship, and repair or replacement of any defective part. AriensCo shall not be liable for incidental, special, or consequential damages (including lost profits). Some states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

AriensCo shall not be held liable for damages, including premature wear and tear, or injuries caused by installation of unauthorized parts and accessories or for parts and accessories not installed by an authorized Ariens dealer.

Australian Consumer Law

The following applies solely to warranties subject to Subsection 102(1) of the Australian Consumer Law: Our goods come with guarantees that cannot be excluded by the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure.

Disclaimer of Further Warranty

AriensCo makes no warranty, express or implied, other than what is expressly made in this warranty. If the law of your state provides that an implied warranty of merchantability, or an implied warranty of fitness for particular purpose, or any other implied warranty, applies to AriensCo, then any such implied warranty is limited to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from region to region.



ARIENS

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www.ariens.com



WARNING: Cancer
and Reproductive Harm -
www.P65Warnings.ca.gov

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