



## OWNER'S / OPERATOR'S MANUAL



**READ THIS MANUAL CAREFULLY!**  
It contains important safety information.

# YTF2EX7

## 48-VOLT AC UTILITY VEHICLE

## INTRODUCTION

Congratulations on your purchase of a Yamaha utility vehicle. This manual contains information you will need for proper operation, maintenance, and care of your utility vehicle. A thorough understanding of these simple instructions will help you to obtain maximum enjoyment from your new Yamaha.

If you have any questions about the operation or maintenance of your utility vehicle, please consult a Yamaha dealer.

**Yamaha Motor Corporation USA**

### **YTF2EX7 OWNER'S/OPERATOR'S MANUAL**

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USA**

**1st Edition**

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**Printed in U.S.A.**

**LIT-19626-81-17**



JW3-F8199-02

# IMPORTANT MANUAL INFORMATION

Particularly important information is distinguished in this manual by the following notations:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

## **WARNING**

A **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

## **NOTICE**

A **NOTICE** indicates special precautions that must be taken to avoid damage to the vehicle or other property.

## **TIP**

A **TIP** provides key information to make procedures easier or clearer.

## **TIP**

Yamaha continually seeks advancements in product design and quality; therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your utility vehicle and this manual. If you have any questions concerning this manual, please consult your Yamaha dealer.

## **WARNING**

Read and understand this manual completely before operating your utility vehicle. This manual should be considered a permanent part of your utility vehicle and should remain with the vehicle when resold.

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# WARRANTY

## LIMITED 2-YEAR WARRANTY FOR TRANSPORTATION AND UTILITY VEHICLES

Yamaha Golf-Car Company hereby warrants that any new Yamaha utility vehicle or any multi passenger cars or specialty vehicles purchased from Yamaha, or an Authorized Dealer or Distributor in the United States will be free from defects in material and workmanship for TWO years from date of purchase, subject to the stated limitations. DURING THE PERIOD OF WARRANTY, any authorized Yamaha golf car service technician, dealer, or distributor will, free of charge, repair or replace, at Yamaha's option, any part adjudged defective by Yamaha due to faulty workmanship or material from the factory. Parts used in warranty repairs will be warranted for the balance of the vehicle's warranty period. All parts replaced under warranty become property of Yamaha Golf-Car Company.

| Common Parts                           |         | Electric Car Specific                                                 |                                                                                                             |
|----------------------------------------|---------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Frame                                  | 2 Years | Battery - Trojan ' T875 ' <u>without</u><br>HydroLink Watering System | 4 Years or 23,500 amp-hours<br>whichever comes first<br><small>*Detailed condition on the next page</small> |
| Transaxle                              | 2 Years |                                                                       |                                                                                                             |
| Pedals                                 | 2 Years |                                                                       |                                                                                                             |
| Brakes (excluding shoes / pads)        | 2 Years |                                                                       |                                                                                                             |
| Electrical wires, switches, and relays | 2 Years |                                                                       |                                                                                                             |
| Suspension / Steering components       | 2 Years | Electric Motor                                                        | 2 Years                                                                                                     |
| Seats                                  | 2 Years | Motor Controller / Charger                                            | 2 Years                                                                                                     |
| Sun Top                                | 2 Years | Charger Cord                                                          | 2 Years                                                                                                     |
| Bumpers / Body Parts                   | 2 Years | Charger Receptacle                                                    | 2 Years                                                                                                     |
| Floor Mats                             | 2 Years | Throttle Position Sensor                                              | 2 Years                                                                                                     |
| Scorecard Holders                      | 2 Years | GAS Car specific                                                      |                                                                                                             |
| Bag Carrier                            | 2 Years | Exhaust / Intake / Generator                                          | 2 Years                                                                                                     |
| Common Accessories                     |         | Gas Engine                                                            | 2 Years                                                                                                     |
| Windshield                             | 3 Years | Throttle Cables / Controls                                            | 2 Years                                                                                                     |
| Head Light                             | 2 Years | Battery                                                               | 1 Years                                                                                                     |
| Tail Light                             | 2 Years | Clutch (excluding drive belt)                                         | 2 Years                                                                                                     |
|                                        |         |                                                                       |                                                                                                             |
|                                        |         | All Remaining Parts                                                   | 1 years                                                                                                     |

**EXCLUSIONS** from this Warranty shall include any failures caused by:

- Abnormal strain, neglect, or abuse, including lack of proper maintenance, and use contrary to the Owner's/Operator's Manual instructions.
- Accident or collision damage.
- Installation of parts or accessories that are not original equipment.
- Fading, rust, or deterioration due to exposure or ordinary wear and tear.
- Modifications or alterations that affect the car's condition, operation, performance, or durability, or which makes the car serve a purpose other than use as a two-person, golf course vehicle.
- Damage due to improper transportation.
- Acts of God, i.e. lightning, hail damage, flooding, fire, etc.

This Limited Warranty does not cover any parts replaced due to normal wear or routine maintenance, including oil and air filter elements, brake shoes, tire wear, spark plugs, starter and clutch drive belts. Any charges incurred in transporting a golf car or charger to and from an authorized Yamaha golf car dealer for service or in performing field service are also excluded from this warranty. Gasoline powered golf car starting batteries on vehicles equipped with a golf course GPS device, or any other device with a parasitic current draw, unless the vehicle is equipped from the factory with an optional deep cycle starting battery, are also excluded from this warranty.

**THE CUSTOMER'S RESPONSIBILITY** under this warranty shall be to operate and maintain the golf car and charger as specified in the appropriate Owner's/Operator's Manual, and give notice to an authorized Yamaha golf car dealer of any and all apparent defects within ten (10) days after discovery, and make the vehicle or charger available at that time for inspection and repairs by the dealer's authorized representative.

**WARRANTY TRANSFER:** Any transfer of warranty must take place within the first three years of the original in-service date of the vehicle. The vehicle must be re-registered by an authorized Yamaha Golf-Car Dealer within 30 days of transfer. A fee may be charged for the transfer of the warranty.

Yamaha Golf-Car Company makes no other warranty of any kind, expressed or implied. All implied warranties of merchantability and fitness of merchantability and fitness for a particular purpose which exceed the obligations and time limits stated in this warranty are hereby disclaimed by Yamaha Golf-Car Company and excluded from this Warranty. Some states do not allow limitations on how long implied warranty lasts, so the above limitation may not only apply to you. Also excluded from this Warranty is any incidental or consequential damages including loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you. This Warranty give you specific legal rights, and you may also have other rights, which vary, from state to state.

Yamaha Motor Corporation, USA, KENNESAW, GEORGIA 30144

EFFECTIVE DATE: 7/1/16

# WARRANTY

1

## YAMAHA FOUR-YEAR LIMITED WARRANTY FOR TROJAN BRAND ELECTRIC GOLF CAR AND UTILITY VEHICLE BATTERIES WHEN CHARGED WITH A YAMAHA 48-VOLT CHARGER

Yamaha Golf-Car Company (herein referred to as "YGC") hereby warrants to the Original Retail Purchaser or Lessee of a YAMAHA The Drive golf car or PTV, Adventurer utility vehicle, or YAMAHA Concierge transportation or specialty car purchased from Yamaha, or an Authorized Dealer or Distributor in the United States, that the Trojan batteries charged with a YAMAHA battery charger will be free from defects in materials and workmanship, and will provide "36-hole performance" as follows:

- 4-years or 23,500 amp-hours with T-875
- 4-years or 25,000 amp-hours with T-875 batteries & the addition of a factory-installed Trojan HydroLink Battery Watering System.

### WARRANTY LIMITATIONS

Yamaha Golf-Car Company's and Trojan Battery Company's limit of liability shall be to replace a defective battery. Replacement shall mean furnishing a new battery or used battery with sufficient life to complete the remainder of the warranty term, at no cost to the purchaser during the limited warranty period, except for labor or transportation expenses.

The following conditions apply:

- Amp-hours will be determined either through the Genius controller or through other means as necessary in the event of a controller failure or replacement.
- This warranty only applies to factory installed Trojan battery sets charged with a Yamaha battery charger.
- The customer must perform (or have a contracted Yamaha Dealer perform) all periodic maintenance and discharge testing as specified in the Yamaha Service Manual Maintenance Schedule. No labor or transportation expenses are included in this limited warranty term. Maintenance records must be kept.
- YGC supplied or approved replacement batteries may be of a different brand or capacity, but are warranted to provide 36-hole performance for the remainder of the original warranty term.
- "36-hole performance" is defined as 60-minutes discharge time as tested and recorded using a Lester model #17770 discharge machine at an ambient temperature of between 60 and 100 degrees F (16 and 38 degrees C). Ambient temperatures between 60 and 80 degrees F (16 and 27 degrees C) must be corrected using the formula: Adjusted Discharge Time = (Discharge Minutes) /  $(1 - ((80 - \text{TEMP}) / 100) \times 0.64)$ .
- The customer must notify the Dealer within 10 days that a vehicle has failed to make 36 holes per day. YGC reserves the right to test and recharge any battery in question.

**ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE VOID AND EXCLUDED SUBSEQUENT TO ONE YEAR FROM THE DATE OF PURCHASE. THE REPLACEMENT OF THE BATTERY IS THE EXCLUSIVE REMEDY UNDER THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. YAMAHA MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, AND NO REPRESENTATIVE, EMPLOYEE, DISTRIBUTOR OR DEALER OF YAMAHA HAS THE AUTHORITY TO MAKE OR IMPLY ANY REPRESENTATION, PROMISE OR AGREEMENT WHICH IN ANY WAY VARIES THE TERMS OF THIS LIMITED WARRANTY.**

### LIMITED WARRANTY EXCLUSIONS

Without limiting the generality of the foregoing in any way, and as part of its limited warranty exclusion, YAMAHA does not warrant that its battery is suitable for use in any application other than in a golf car or utility vehicle. As in the use of any battery, a prudent owner will read and study the charger owner's manual, the vehicle owner's manual, the operator's instructions, and the battery warning labels; and will exercise due care in working on or around batteries.

**THE PROVISIONS OF THIS LIMITED WARRANTY SHALL NOT APPLY IF BATTERIES ARE SUBJECT TO ANY OF THE FOLLOWING CONDITIONS:**

- Abuse or neglect such as improper fluid levels, loose wiring, rusted or corroded hardware.
- Lack of proper maintenance as outlined in the electric vehicle Owner's/Operator's Manual. For example, lack of regular battery watering or adding water to the battery before charging.
- Damage caused by improper installation of the battery.
- Neglect, breakage, freezing, fire, explosion, wreckage, the addition of any chemical, or the operation of the battery in an uncharged condition (below half-charge - 1.200 specific gravity).
- Battery charged by systems other than the original equipment type battery charger.
- On fleet golf cars, the use of any non-YAMAHA supplied electrical devices that consume more than one amp-hour per round or two amp-hours per day of battery energy. Examples of these devices include, but are not limited to: heating or cooling systems; GPS (global position system) devices; information gathering devices; lights; radios or stereos; or yardage measuring devices.
- Less than one charger per car or inadequate facility electrical power to power all chargers. Examples include more than one charger on a single circuit, circuit rating of less than 15 amps, or not enough circuits for the number of cars.
- In fleet applications, less than one battery charger per vehicle. For example, using only 10 battery chargers to charge a 15 car fleet.
- The use of any system that does not allow the battery chargers to shut off automatically. For example, timer systems that are designed to switch battery charger AC power on and off during peak demand hours.
- Damage not resulting from a defect in materials or workmanship or which occurs due to abuse or neglect (including failure to provide reasonable and necessary maintenance), accident, alteration or acts of God is excluded from this limited warranty.

THIS BATTERY IS INTENDED TO BE USED BY PERSONS WITH TRAINING AND EXPERIENCE WITH BATTERIES AND ONLY IN YAMAHA ELECTRIC VEHICLES. ANY OTHER USE RENDERS THE LIMITED WARRANTIES EXPRESSED HEREIN AND ALL IMPLIED WARRANTIES NULL AND VOID AND SAME ARE HEREBY EXCLUDED.

ALSO EXCLUDED FROM THIS LIMITED WARRANTY ARE ANY AND ALL INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF USE OR REVENUE, LOSS OF TIME, INCONVENIENCE OR ANY OTHER ECONOMIC LOSS.

Some states do not allow limitation on the duration of an implied warranty, exclusions or limitations of incidental or consequential damages. Therefore, the above limitations or exclusions may not apply to you.

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

For further information or to submit a warranty claim, contact your local Yamaha Golf-Car Dealer or Yamaha's customer relations at (800) 962-7926.

Yamaha Motor Corporation, USA  
Kennesaw, GEORGIA 30144

EFFECTIVE DATE: 07/01/16

LIT-13710-EL-14

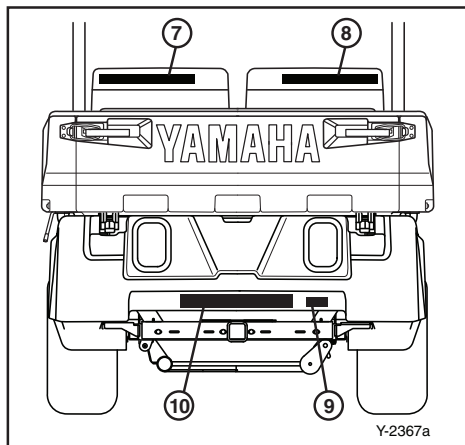
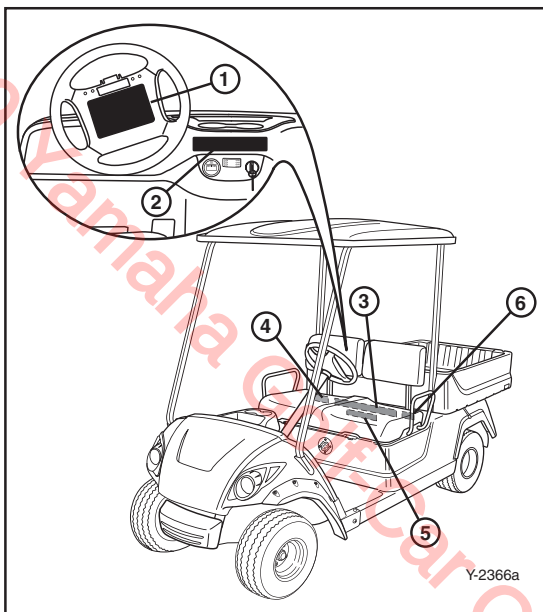
# IMPORTANT LABELS

## ⚠ SAFETY AND INSTRUCTION LABELS

### ⚠ WARNING

2

Read the following labels carefully before operating your utility vehicle, and promptly replace any labels which become damaged or removed. Death or serious personal injury can result from failing to read and comply with the safety instruction labels.



⚠ **WARNING**

To reduce the risk of accidents and injury or DEATH:

- Never travel at speeds too fast for the terrain, visibility conditions, or your experience.
- Drive with extra caution in congested areas, when operating in reverse, and when driving on wet, rough, or loose surfaces.

**OPERATING INSTRUCTIONS**

- Read the warning label on the beverage holder panel before operating.
- Be sure occupants are seated.
- Select "FORWARD" OR "REVERSE" then turn main switch to "ON".
- Press the accelerator pedal to start moving. The motor will start and the parking brake will release automatically.
- To stop, release the accelerator pedal and press the brake pedal. Press the parking brake until it locks, and turn the main switch to "OFF" before leaving the vehicle.
- Come to a complete stop before reversing direction.
- Read the Owner's/Operator's Manual for more information.

**ATTENTION**

- This vehicle was not manufactured for use on public streets and does not comply with federal motor vehicle safety standards applicable to passenger cars.

YAMAHA

JWB-K76Z-00

②

## ⚠ WARNING

### To reduce the risk of accidents and injury or DEATH:

- Vehicle capacity: 1 operator and 1 passenger.
- Remain seated and hold on while in motion.
- Keep entire body inside vehicle.
- Passenger and cargo can affect vehicle handling.
- Drive slowly in turns.
- Drive straight up and down hills-driving across the side of hill increases the risk of overturn.
- Vehicle rated capacity (driver, passenger, cargo, trailer, and load) 750 lb (340 kg) on level surface.
- This vehicle is recommended only for operators 16 or older with a valid motor vehicle license.
- Adults must supervise use by minors. Check state laws for minimum age requirements.
- Locate and read Owner's Manual. Follow all instructions and warnings.

YAMAHA

REV

FWD OFF

ON

JP3-K7768-00

③

**BATTERY INSTALLATION AND WIRE LEAD CONNECTION**  
**INSTALLATION DES BATTERIES ET RACCORDÉMENT DES FILS**

|  |                                                                                                                                                                                                                                                                                             |  |                                                                                                                                                                                                                                                                                                                                                         |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>⚠ WARNING</b></p> <p>Explosive gases are released when batteries are charged or discharged.</p> <ul style="list-style-type: none"> <li>• Keep well ventilated.</li> <li>• Do not smoke or use open flames.</li> <li>• Shield eyes when working near batteries.</li> </ul>             |  | <p><b>⚠ AVERTISSEMENT</b></p> <p>Les gaz explosifs se dégagent lorsque les batteries sont chargées ou déchargées.</p> <ul style="list-style-type: none"> <li>• Garder bien ventilé.</li> <li>• Ne pas fumer, ni utiliser de flamme ouverte.</li> <li>• Se protéger les yeux lorsque l'on travaille près des batteries.</li> </ul>                       |
|  | <p><b>⚠ WARNING</b></p> <p>Sulfuric acid in batteries can burn skin, eyes and clothing.</p> <ul style="list-style-type: none"> <li>• Do not tip batteries.</li> <li>• Never vent open right.</li> <li>• In the event of injury, flush with water and call for medical attention.</li> </ul> |  | <p><b>⚠ AVERTISSEMENT</b></p> <p>L'acide sulfurique dans les batteries peut brûler la peau, les yeux et les vêtements.</p> <ul style="list-style-type: none"> <li>• Ne pas renverser les batteries.</li> <li>• Ne pas ventiler les batteries.</li> <li>• En cas de contact avec l'acide, rincer à l'eau et appeler un médecin immédiatement.</li> </ul> |
|  | <p><b>⚠ WARNING</b></p> <p>Electrical shorts can result in burns.</p> <ul style="list-style-type: none"> <li>• Do not make connection between positive and negative battery terminals.</li> </ul>                                                                                           |  | <p><b>⚠ AVERTISSEMENT</b></p> <p>Les courts-circuits électriques peuvent causer des brûlures.</p> <ul style="list-style-type: none"> <li>• Ne pas relier à terre positive et négative d'une même batterie.</li> </ul>                                                                                                                                   |

YAMAHA

JP3-K327P-00

④

G.V.W.: 846.5 kg  
CURB WEIGHT: 506.5 kg  
VEHICLE LOAD CAPACITY: 181 kg PER SEAT  
MAX. BATTERY WEIGHT: 171 kg  
NOMINAL SYSTEM VOLTAGE: 48V  
This vehicle complies to SAE-J-2258 2010

JP3-F4236-00

⑥

DATE OF CONSTRUCTION: JAN. 2016  
YAMAHA MOTOR POWERED PRODUCTS CO., LTD  
200-1 SAKAGAWA, KAKEGAWA, JAPAN  
MODEL: YTF2E17  
VEHICLE WEIGHT: 371.5 kg (819 lb)  
BATTERY WEIGHT MAX.: 224 kg, MIN.: 171 kg  
NOMINAL BATTERY VOLTAGE: 48V  
MAX. POWER: 6.7 hp (5.0 kw)  
LOAD CAP.: 590 kg (1300 lb)

This vehicle complies with ANSI/ITF B56.8-2011-Part III

JW3-F4236-20

# IMPORTANT LABELS

# IMPORTANT LABELS

2

⑤

## NOTICE / NOTIFICATION

Move switch to the "TOW" position before towing or storage. Failure to do so may lead to:

- Drive system damage when towing.
- Complete battery discharge and battery damage when storing long term.
- After moving switch from "RUN" to "TOW", wait 15 seconds minimum before switching again.

**YAMAHA**

## TOW SWITCH



Mettre l'interrupteur à position "TOW" avant de remorquer ou avant l'entreposage. Non-observation pourrait:

- Dommages de système d'entraînement en remorquant.
- Causer une décharge totale de la batterie et endommager la batterie pendant l'entreposage à long terme.
- Après avoir changé l'interrupteur de position "RUN" à position "TOW", attendre un minimum de 15 seconds avant de le remettre.

JW9-K8298-10

⑦

## ⚠ WARNING

**IMPROPER USE OF CARGO BED CAN RESULT IN SEVERE INJURY OR DEATH FROM LOSS OF CONTROL, OVERTURN OR OTHER ACCIDENTS.**

- Do not carry passengers in cargo bed
- Maximum load in cargo bed 800lb. (363kg)
- Load may affect handling and stability
  - Secure cargo so that it will not shift - a loose load could change handling unexpectedly or be thrown forward injuring occupants.
- Keep weight in the cargo bed centered side to side, and as low and as far forward as possible. Top-heavy loads increase the risk of overturn.



- Keep hands, body, other persons, away from pinch points when lowering bed.
- Do not operate the vehicle with bed up.

**WARNING**

JW7-K7766-00

# IMPORTANT LABELS

8

## ! WARNING

**STATIC ELECTRICITY SPARKS CAN IGNITE FUEL VAPOR CAUSING FIRE OR EXPLOSION.**

- Do not fill portable fuel container (gas can) in cargo bed.
- Set fuel container on the ground and touch fuel nozzle to the unopened container before removing cap.
- Keep the fuel nozzle in contact with the container while fueling.
- Tighten cap before putting fuel container in cargo bed.

YAMAHA



• Keep hands, body, other persons, away from pinch points when lowering bed.

• Do not operate the vehicle with bed up.

JW6-K7765-01

9



Y-1673a

10

## ! WARNING

**Improperly loading a trailer or pulling an object can affect handling, stability, and risk of overturn or other accidents.**

- Vehicle rated capacity: 750 lb (340 kg) maximum including weight of operator, passenger, accessories, cargo, and (if applicable) trailer tongue weight. G.V.W. = 1866.2 lb (846.5 kg)
- Secure load to prevent it from shifting.
- Never load more than 150 lb (68 kg) tongue weight on the towing bracket.
- Do not tow more than 500 lb (227 kg) rolling weight (trailer plus cargo).
- Read Owner's/Operator's Manual before loading, towing, or pulling objects.

YAMAHA

Improper tire pressure or overloading can cause loss of control. To reduce the risk of accidents and injury or DEATH:

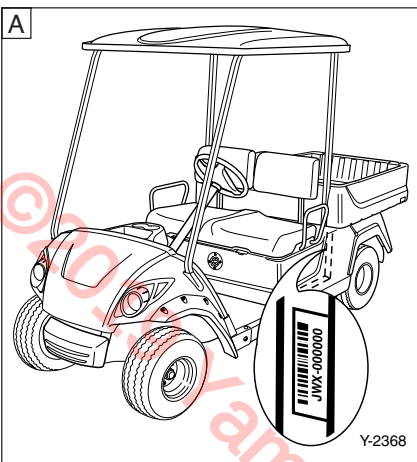
- Operating tire pressure: set with tires cold.

|              |                                 |                                 |
|--------------|---------------------------------|---------------------------------|
|              | Front                           | Rear                            |
| Recommended: | 84 kPa, 12 psi / 97 kPa, 14 psi | 70 kPa, 10 psi / 84 kPa, 12 psi |
| Minimum:     | 70 kPa, 10 psi / 84 kPa, 12 psi | 70 kPa, 10 psi / 84 kPa, 12 psi |

- Never set tire pressure below minimum. Tire may dislodge from rim.

JP3-F1696-00

## IMPORTANT LABELS



### UTILITY VEHICLE SERIAL NUMBER

The utility vehicle serial number (A) is identified in the location shown.

#### TIP

The first three digits of the serial number are for model identification; the remaining digits are the unit production number. Keep a record of these numbers for reference when ordering parts from a Yamaha dealer.



## SAFETY INFORMATION

Yamaha utility vehicles are designed to be simple to operate. However, be sure to observe the following to reduce the risk of serious injury or death due to loss of control and other hazards:

### BEFORE OPERATING THE UTILITY VEHICLE

- Read this Owner's/Operator's manual and all safety and instruction labels on the utility vehicle before operating.
- Perform the pre-operation checks found in Section 5 of this manual.
- This vehicle is recommended only for operators 16 and older with a valid motor vehicle license. Adults must supervise use by minors. Check state laws for minimum age requirements.
- Do not allow more than two occupants per seat. This utility vehicle is restricted to two occupants.
- Never give a ride to a passenger who is unable to put both feet firmly on the floorboard while seated with his or her back against the backrest.
- Never carry passengers on the cargo bed.
- Do not operate the utility vehicle while under the influence of alcohol or drugs; their effect on vision and judgment make operating a utility vehicle dangerous.
- This vehicle was not manufactured for use on public streets and does not comply with federal motor vehicle safety standards applicable to passenger cars.

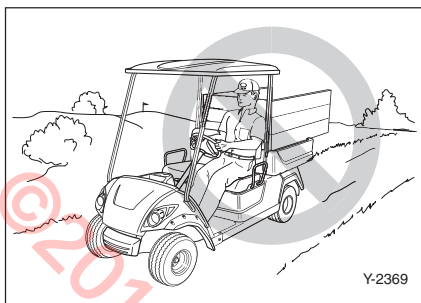


Y-68

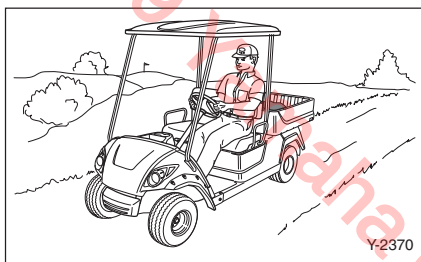


## SAFETY INFORMATION

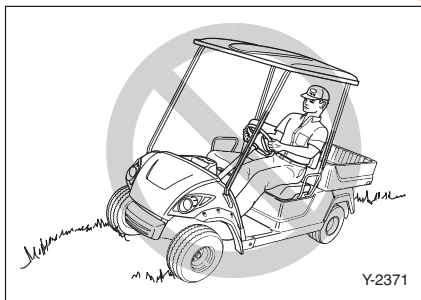
3



Y-2369



Y-2370



Y-2371

- Do not operate the utility vehicle on public streets, roads or highways unless allowed by law or the local regulating authority.
- Do not make any modification or addition which affects capacity or safe operation, or make any changes not in accordance with the Owner's/Operator's manual.

### WHILE OPERATING THE UTILITY VEHICLE

- Keep your entire body inside the utility vehicle, remain seated and hold on when the vehicle is in motion.
- Do not start the utility vehicle until all occupants are seated.
- Always keep both hands on the steering wheel when driving. Always go at a speed that is proper for the terrain, visibility, and operating conditions, and your experience. Go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when driving the vehicle.
- Never operate on excessively rough, slippery, or loose terrain.
- Use extra care in congested areas or when backing up. Always back up slowly, and watch carefully.
- Avoid starting or stopping abruptly.
- Avoid turning the steering wheel too sharply at higher speeds to avoid tipping or rolling the vehicle.
- Never attempt jumps or other stunts.
- Always drive slowly straight up or straight down slopes – never at an angle – to avoid tipping or rolling the vehicle. Never operate the vehicle on slopes that are too steep for it or for your abilities.



## SAFETY INFORMATION

- Never operate on slopes that are slippery or ones where you will not be able to see far enough ahead of you. Never go over the top of a slope at speed if you cannot see what is on the other side.
- Always check terrain carefully before going down slopes. Go as slowly as possible. Never go down a slope at high speed.
- Always check for obstacles before operating in a new area.
- Never operate the vehicle in fast flowing water or water deeper than 15 cm (6 in). Remember that wet brakes may have reduced stopping ability. Test your brakes after leaving water. If necessary, apply them several times to let friction dry out the linings.

## ACCESSORIES AND LOADING

### Accessories

Accessories can affect the handling and control of your vehicle. Keep the following in mind when considering an accessory or operating a utility vehicle which has accessories.

- Choose only accessories designed for your utility vehicle. Your Yamaha dealer has a variety of genuine Yamaha accessories. Other accessories may also be available on the market. However, it is not possible for Yamaha to test all non-Yamaha accessories, nor have any control over the quality or suitability of them. Choose a genuine Yamaha accessory, or one that is equivalent in design and quality.
- Accessories should be rigidly and securely mounted. An accessory which can shift position or come off while you are operating could affect your ability to control the utility vehicle.
- Do not mount an accessory where it could interfere with your ability to control the utility vehicle. Examples include (but are not limited to) an object that limits your ability to turn the steering wheel or one that limits your view.
- Use extra caution when driving a utility vehicle with accessories. The utility vehicle may handle differently than it does without accessories.



## SAFETY INFORMATION

3

### Loading

Cargo or a trailer can change the stability and handling of a utility vehicle. You must use common sense and good judgment when carrying cargo or towing a trailer. Keep the following points in mind:

- Never exceed the weight limits shown on page 9-1. An overloaded utility vehicle can be unstable.
- Do not exceed the maximum tongue weight. You can measure tongue weight with a bathroom scale. Put the tongue of the loaded trailer on the scale with the tongue at hitch height. Adjust the load in the trailer, if necessary, to reduce the weight on hitch. If you are carrying cargo and towing a trailer, include the tongue weight in the maximum vehicle load limit.
- Cargo should be as far forward in the bed as possible, and distributed evenly from side to side. Be sure cargo is secured so that it cannot move around during operation.
- Cargo should always be secured in the trailer. Make sure cargo in the trailer cannot move around. A shifting load can cause an accident.
- Make sure the load does not interfere with controls or your ability to see where you are going.
- Drive more slowly than you would without a load. The more weight you carry, the slower you should go. Although conditions vary, it is good practice not to exceed low range whenever you are carrying heavier loads or when towing a trailer.
- Allow more braking distance. A heavier vehicle takes longer to stop. Do not brake abruptly when carrying loads in the cargo bed or when towing a trailer.
- Avoid making sharp turns unless at very slow speeds to avoid tipping or rolling the vehicle.
- Avoid hills and rough terrain. Choose terrain carefully. Added weight affects the stability and handling of the utility vehicle.



## SAFETY INFORMATION

### MAINTENANCE REQUIRED FOR UTILITY VEHICLE SAFETY

Practice the following to help ensure the safety of utility vehicle occupants:

- **Preventative Maintenance.** Perform all scheduled maintenance in accordance with manufacturer's recommendations to provide a safe, properly operating utility vehicle.
- **Personnel.** Allow only qualified, trained and authorized personnel to inspect, adjust and maintain utility vehicles.
- **Parts and Materials.** Use only replacement parts and materials recommended by the manufacturer.
- **Ventilation.** Properly ventilate all maintenance and storage areas in accordance with applicable fire codes and ordinances to avoid fire hazards. Ventilation is required to remove hydrogen gas from electric powered car storage areas during the charging process.

For electric powered utility vehicles, the amount of hydrogen gas emitted during charging depends on a number of factors, such as the condition of the batteries, the output rate of the battery charger and the amount of time the batteries are on charge. Because of the highly volatile nature of hydrogen gas and its propensity to rise and accumulate at the ceiling in pockets, a minimum of five air changes per hour is recommended. Consult applicable fire and safety codes for the specific ventilation levels requirement, as well as requirements for the use of explosion proof electrical apparatus.

### SAFETY PRECAUTIONS DURING MAINTENANCE

When performing maintenance, follow all safety instructions contained in the manufacturer's operation and service manuals, as well as the following safety procedures:

- Properly immobilize utility vehicle before beginning any maintenance to avoid any unexpected vehicle movement.
- Properly block chassis before working underneath utility vehicle to avoid any unexpected vehicle movement.
- When working on the battery, do not smoke, or allow any sparks or open flames near the vehicle, to avoid any fires or explosions.
- Before working on an electric utility vehicle, disable the car's electrical system by placing the "TOW" switch in the "TOW" position to avoid electrical shock or damage to the electrical system.
- Use only properly insulated tools when working on electrically powered utility vehicles or around batteries to avoid electrical shock or damage to the electrical system.
- Maintain all safety devices including brakes, steering mechanisms, warning devices and governors, in a safe operating condition. Do not modify these safety devices as supplied by the manufacturer.
- After each maintenance or repair, the car must be driven by a qualified, trained and authorized person – in an area free of pedestrian traffic – to ensure proper operation and adjustment.



## SAFETY INFORMATION

3

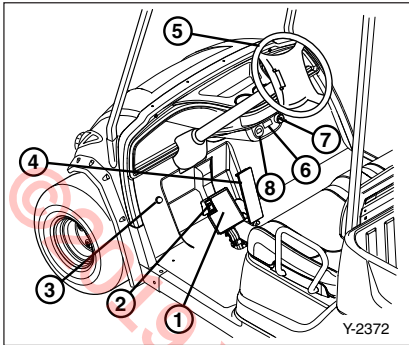
- Record all maintenance performed in a maintenance record log by date, name of person performing maintenance and type of maintenance. Periodically inspect maintenance log to ensure accurate and complete entries.
- Maintain in a legible condition all nameplates, warnings and instructions provided by the manufacturer.
- If new nameplates, warnings or instructions are needed, contact your Yamaha dealer.

## STORAGE AND BATTERY CHARGING

Take the following precautions to ensure maintenance worker safety:

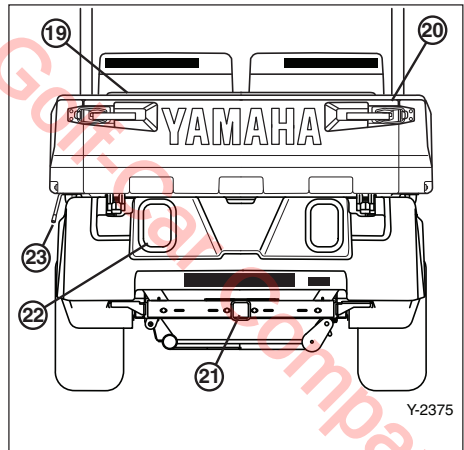
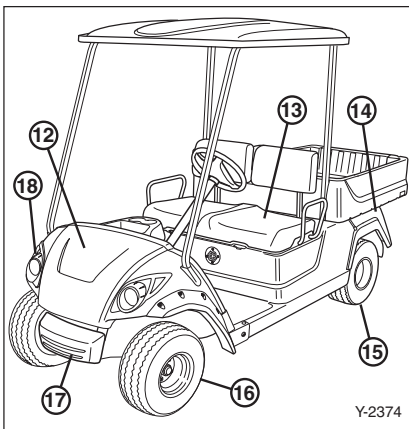
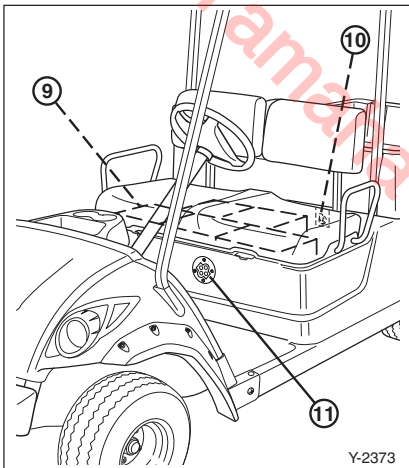
- Only use battery changing and charging facilities and procedures that are in accordance with applicable ordinances and regulations to avoid explosions, electrical shock or damage to the electrical system.
- Periodically inspect charging facilities and procedures to be certain that applicable safety codes, regulations and procedures are being followed to avoid any fires or explosions.

# CONTROLS



## FEATURES

- |                         |                                  |
|-------------------------|----------------------------------|
| ① Brake pedal           | ⑪ DC charger receptacle          |
| ② Parking brake pedal   | ⑫ Front body                     |
| ③ Horn switch           | ⑬ Seat                           |
| ④ Accelerator pedal     | ⑭ Rear body                      |
| ⑤ Steering wheel        | ⑮ Rear tire                      |
| ⑥ Drive select switch   | ⑯ Front tire                     |
| ⑦ Main/headlight switch | ⑰ Front bumper                   |
| ⑧ Battery gauge         | ⑱ Headlights                     |
| ⑨ Batteries             | ⑲ Cargo bed                      |
| ⑩ Tow switch            | ⑳ Tailgate                       |
|                         | ㉑ Trailer hitch receiver bracket |
|                         | ㉒ Taillights                     |
|                         | ㉓ Cargo bed release lever        |



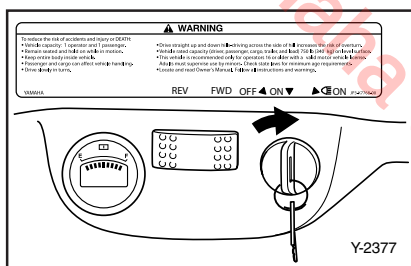
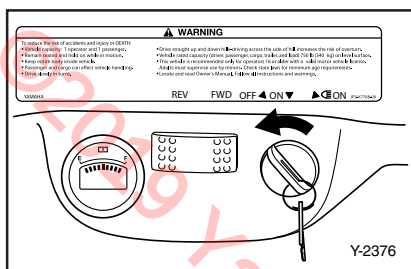
## CONTROLS

## MAIN SWITCH

The main switch controls the following items:

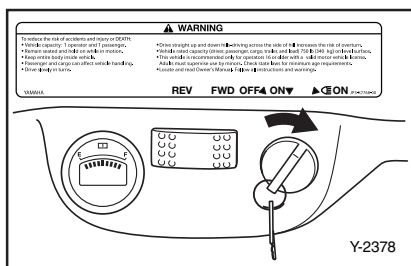
“OFF”

All electrical circuits are switched off (motor controller unit remains energized). The utility vehicle cannot be operated. The key can be removed only in this position.



“ON”

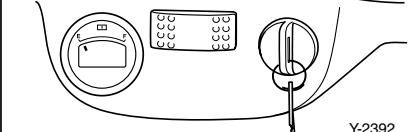
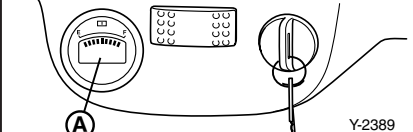
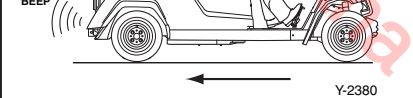
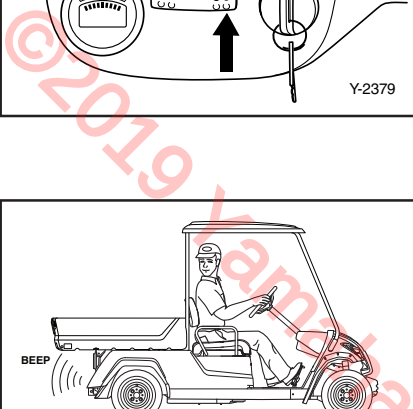
Electrical circuits are switched on.  
The vehicle can be driven.



## “ON” WITH LIGHTS

The functions for this position are the same as for the ON position; however, this position will activate the headlights and taillights.

## CONTROLS



## DRIVE SELECT SWITCH

The drive select switch is used to shift the utility vehicle into forward or reverse. After coming to a complete stop, move the switch to the desired position.

| Switch Position | Car Movement |
|-----------------|--------------|
| FWD             | FORWARD      |
| REV             | REVERSE      |

### TIP

The reverse alarm will sound when the drive select switch is turned to "REV."

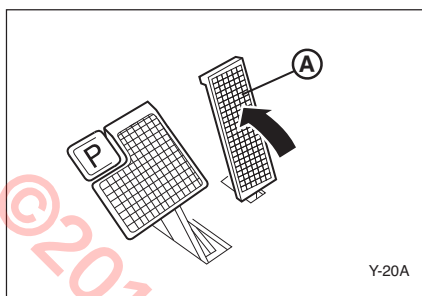
## BATTERY GAUGE

The battery gauge displays how much charge is left in the batteries (A). When the batteries are at full charge, all the LEDs will be lit.

As the battery energy decreases, the LEDs will move to the left toward the “E.” When the LED light below the “E” is the only one lit, the batteries must be charged.

# CONTROLS

4

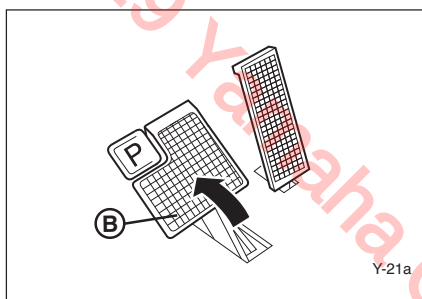


## ACCELERATOR PEDAL

The accelerator pedal starts the engine and controls the vehicle's speed.

| Action        | Car Speed |
|---------------|-----------|
| Depress pedal | Increase  |
| Release pedal | Decrease  |

(A) Accelerator pedal

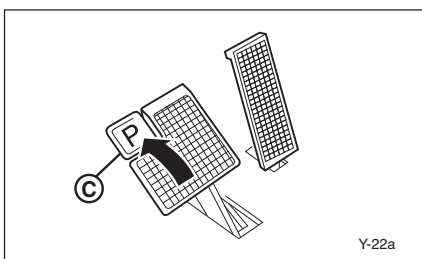


## BRAKE PEDAL

Press down on the brake pedal to stop the utility vehicle.

(B) Brake pedal

The engine stops when the vehicle has stopped.



## PARKING BRAKE PEDAL

Press down on the parking brake pedal whenever parking the utility vehicle.

(C) Parking brake pedal

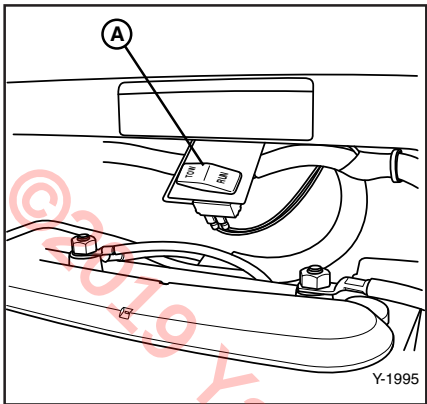
## TIP

Release the parking brake by depressing the accelerator pedal.

## ⚠ WARNING

The parking brake will automatically release when the accelerator pedal is depressed. If the main switch is in the "ON" position, depressing the accelerator may suddenly cause the utility vehicle to move. Death or serious personal injury can result from failing to comply with the safety instructions in this manual.

## CONTROLS



## TOW SWITCH

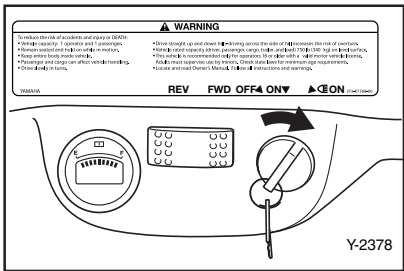
Before operating the vehicle, make sure the tow switch is in the “RUN” position.

Ⓐ Tow switch

## NOTICE

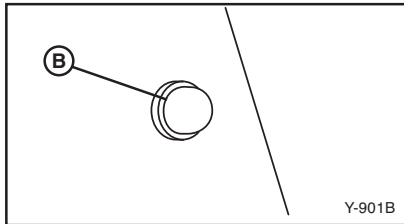
**Ensure that the “Drive Select Switch” is in the “FWD” position and then move the “TOW Switch” to “TOW” before towing.**

**After moving switch from “RUN” to “TOW,” wait 15 seconds minimum before switching again. Failure to do so may lead to drive system damage while towing.**



# HEADLIGHT/TAILLIGHT ON POSITION

Turn the main switch all the way to the right to the second ON position. This will activate the headlights and taillights.



## HORN SWITCH

The horn is located adjacent to the brake pedal, and is activated by depressing with your foot.

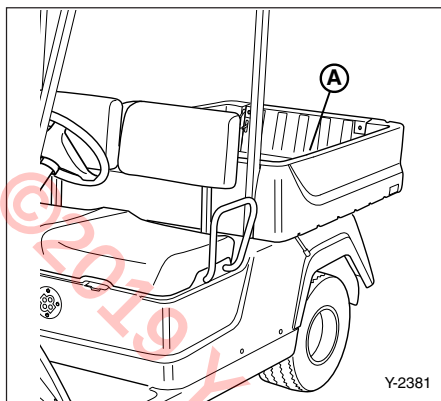
② Horn switch

### TIP

It is advisable to sound the horn when approaching blind corners.

# CONTROLS

4



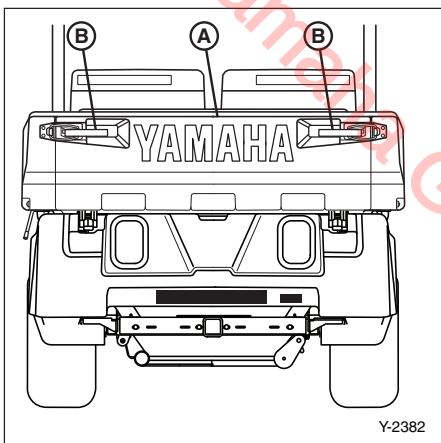
## CARGO BED

Ⓐ Cargo bed

### ⚠ WARNING

**Never allow passengers to ride in the cargo bed. There is no seating and passengers can easily fall out.**

Always make sure your cargo is secure when using the cargo bed. Tie the load down with cords or straps where needed.



## OPENING AND CLOSING THE TAILGATE

To open the tailgate, unhook the latches, and then lower the tailgate.

To close, place the tailgate in its original position, and then hook the latches.

Ⓐ Tailgate

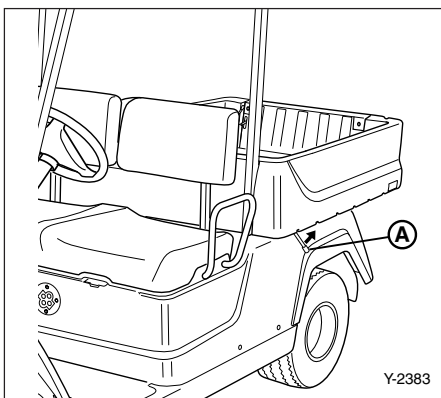
Ⓑ Latch

## RAISING AND LOWERING THE CARGO BED

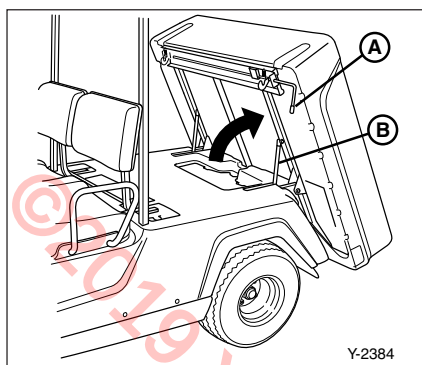
To raise the cargo bed, pull the release lever toward the rear to unlatch the latches. The gas spring assists in raising and holding the cargo bed open.

### TIP

The gas spring will only open/hold the cargo bed when it is empty.



# CONTROLS



To lower the cargo bed, push down on the box to lower it in the original position. Make sure the latches for the cargo bed are securely latched.

- (A) Cargo bed release lever
- (B) Gas spring

Maximum load limit:  
362 kg (798 lb)

4

## **⚠ WARNING**

### **Uncontrolled Movement Hazard**

- Never exceed the stated load capacity for this vehicle.
- Distribute the load evenly.
- Secure cargo in cargo bed.
- Never tow cargo that is not secured.
- Reduce speed and allow greater distances for braking.

## **⚠ WARNING**

### **Fall and Thrown Object Hazard**

- Do not carry passengers in the cargo bed.

## **⚠ WARNING**

### **Crush Hazard**

- Keep hands and fingers away from cargo bed and seat tracks.
- Have others back away from vehicle before closing cargo bed.
- Do not allow passengers to sit on the seat when closing cargo bed.

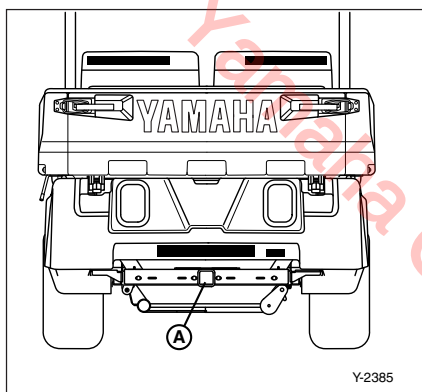
# CONTROLS

## ⚠ WARNING

### Fire or Explosion Hazard

- Do not fill fuel containers in the plastic cargo bed.
- Set fuel container on the ground.
- Keep fuel nozzle in contact with can inlet while filling.
- Tighten cap before setting fuel container in cargo bed.

4



## TRAILER HITCH RECEIVER BRACKET

This vehicle is equipped with a 5 cm (2 in.) receiver bracket for a standard trailer hitch. Trailer towing equipment can be obtained at a Yamaha dealer.

- Ⓐ Trailer hitch receiver bracket

# PRE-OPERATION CHECKS

Pre-operation checks should be made each time you use your utility vehicle. Get in the habit of performing the following checks in the same way so that they become second nature.

## **⚠ WARNING**

Failure to inspect or maintain your vehicle properly increases the possibility of an accident or equipment damage. Do not operate the vehicle if you find any problem. If a problem cannot be corrected by the procedure in this manual, have the vehicle inspected by a Yamaha dealer.

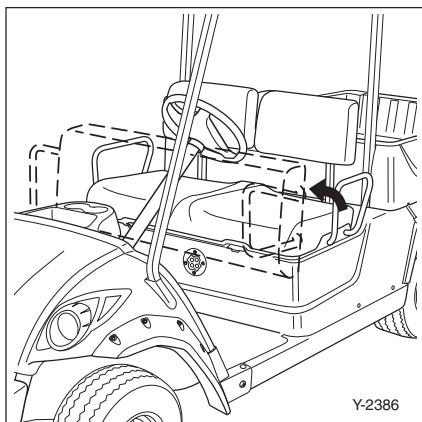
5

## PRE-OPERATION CHECKS

Refer to the Periodic Maintenance charts on pages 7-1 and 7-2.

### SEAT

Open the seat for checking and servicing.



Y-2386

# PRE-OPERATION CHECKS

## BATTERY

Charge batteries before each use. See charging steps in Chapter 7, *Maintenance*.

Check that the batteries are held securely in place to prevent the batteries from being damaged from vibration or jarring. Also check that no battery caps are missing to prevent battery acid from spilling from the battery. Check the battery terminals for corrosion.

### ⚠ WARNING

**Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with skin, eyes or clothing. Ventilate when charging or using in enclosed space. Always shield eyes when working near batteries. KEEP OUT OF REACH OF CHILDREN.**

## TIRE CONDITION

### Tire Air Pressure

Check the tire air pressure before operating the utility vehicle.

Tire pressure:

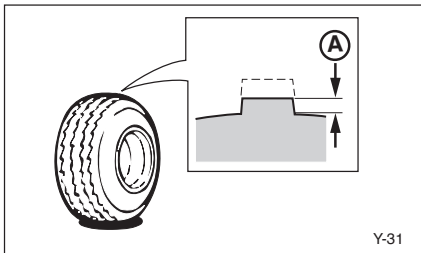
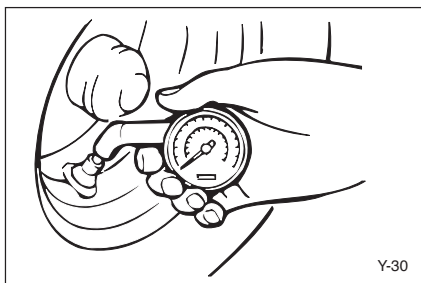
Front: 68-82 kPa, 0.69-0.84 kgf/cm<sup>2</sup> (10-12 psi)

Rear: 241-255 kPa, 2.5-2.6 kgf/cm<sup>2</sup> (35-37 psi)

### Tire Wear Limit

Check the tire surface for damage, cracks or embedded objects. When tire tread wears down to 3 mm (0.12 in.), replace the tire.

Ⓐ Wear limit



# PRE-OPERATION CHECKS

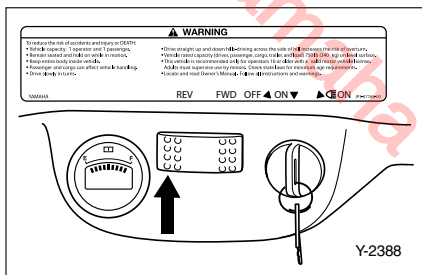


## STEERING SYSTEM

Check the steering system for excessive free play by:

- moving the steering wheel up and down, and back and forth.
- turning the steering wheel slightly to the right and left.

If you feel excessive free play, or hear rattling sounds which may indicate loose steering components, consult a Yamaha dealer.



## REVERSE ALARM

Check the reverse alarm by moving the drive select switch to "REV" for reverse. The alarm should sound.

## PEDAL OPERATION

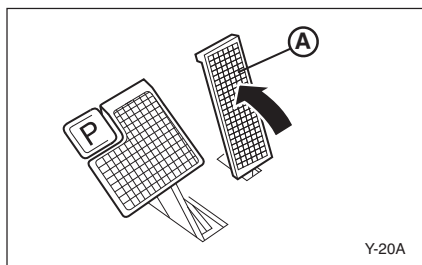
Check the following pedal controls for proper operation. If a pedal does not work properly, consult a Yamaha dealer.

## Accelerator Pedal

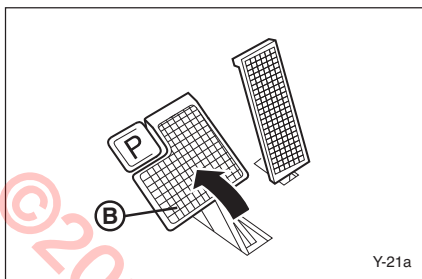
### ⚠ WARNING

With the main switch in the "OFF" position, make sure the accelerator pedal operates smoothly.

- Ⓐ Accelerator pedal



# PRE-OPERATION CHECKS



## Brake Pedal

Make sure the brake pedal feels firm when pressed and returns to its original position when released.

Ⓑ Brake pedal

### ⚠ WARNING

**Consult your Yamaha dealer before using your utility vehicle if you suspect brake problems.**

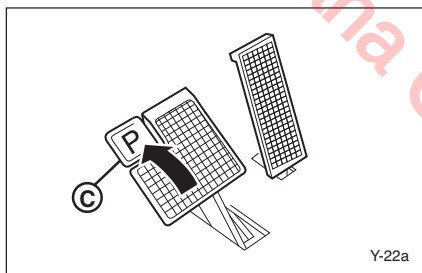
## Parking Brake Pedal

Make sure the parking brake pedal locks in place with a positive click, and releases when the accelerator pedal is pressed.

Ⓒ Parking brake pedal

### TIP

Release the parking brake by depressing the accelerator pedal.

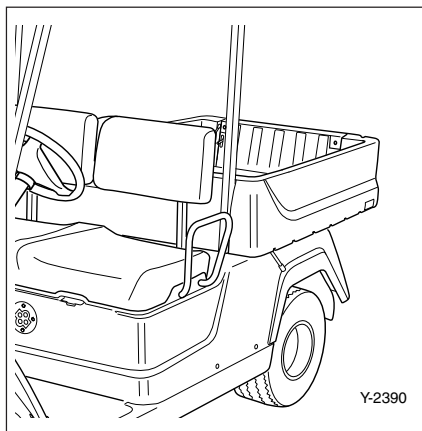


## BODY AND CHASSIS

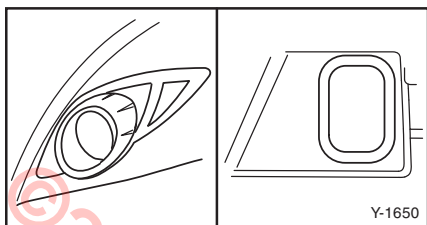
Before each use, visually inspect the utility vehicle body and chassis for damage and/or missing parts.

## CARGO BED

Make sure the cargo bed is lowered completely and is latched in the down position. Make sure both tailgate latches are latched.



# PRE-OPERATION CHECKS

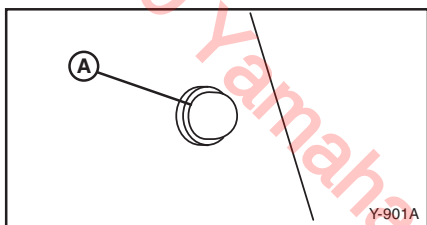


## Headlights/Taillights

Ensure the headlights and taillights are operational.

### **WARNING**

**Never operate the utility vehicle at night or during inclement weather without properly working headlights/taillights.**

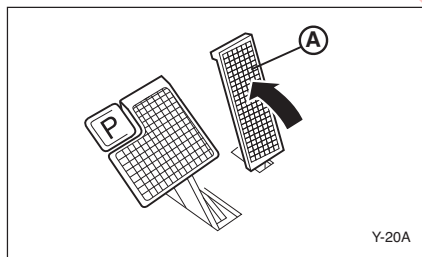
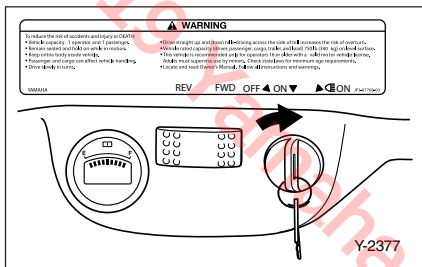
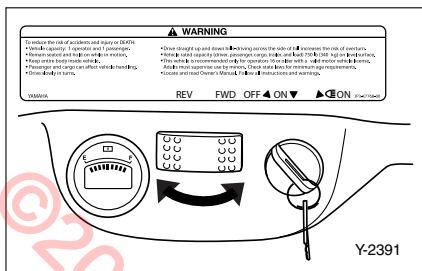


## Horn Switch

Make sure the horn operates correctly.

Ⓐ Horn switch

## OPERATION



## STARTING

1. With the parking brake applied, move the drive select switch to "FWD" for forward, or "REV" for reverse.

## NOTICE

**Do not shift from “FWD” forward to “REV” reverse while the utility vehicle is moving. Transmission damage can result.**

2. Turn the main switch to “ON.”

## WARNING

**Do not depress the accelerator pedal when turning on the main switch or the vehicle may start moving unexpectedly.**

3. Check that your path is clear in the direction you plan to go, and slowly depress the accelerator pedal. The vehicle will start to move.

Ⓐ Accelerator pedal

### TIP

The parking brake automatically releases when the accelerator pedal is depressed.

# OPERATION

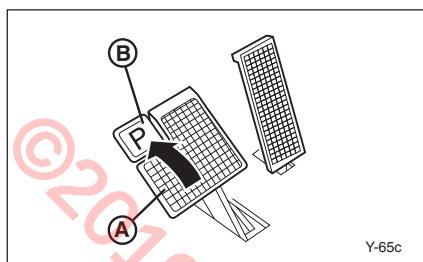
## STOPPING

To stop the utility vehicle, gradually press down on the brake pedal.

- (A) Brake pedal

When the vehicle has come to a stop, apply the parking brake pedal and turn the main switch to "OFF."

- (B) Parking brake pedal



### NOTICE

**Do not hold the utility vehicle on an incline with the accelerator – use the brake. Transmission damage can result.**

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## MAXIMUM LOADING LIMIT

- Vehicle Rated Capacity:  
590 kg (1300 lb)
- Maximum Cargo Bed Capacity:  
362 kg (798 lb)
- Maximum Towing Capacity:  
454 kg (1000 lb)
- Maximum Tongue Weight:  
45 kg (100 lb)
- Gross Vehicle Weight:  
1186 kg (2613 lb)

## LOADING

Cargo or a trailer can change the stability and handling of a vehicle.

You must use common sense and good judgment when carrying cargo or towing a trailer. Keep the following points in mind:

- Never exceed the weight limits shown. An overloaded vehicle can be unstable.

# OPERATION

6

- Do not exceed the maximum tongue weight. You can measure tongue weight with a bathroom scale. Put the tongue of the loaded trailer on the scale with the tongue at hitch height. Adjust the load in the trailer, if necessary, to reduce the weight on hitch. If you are carrying cargo and towing a trailer, include the tongue weight in the maximum vehicle load limit.
- Load cargo in the cargo bed as close to the center of the vehicle as possible to avoid tipping the vehicle.
- Cargo should be as far forward in the bed as possible, and distributed evenly from side to side. Be sure cargo is secured so that it cannot move around during operation.
- Make sure the load does not interfere with controls or your ability to see where you are going.
- Drive more slowly than you would without a load. The more weight you carry, the slower you should go.
- Allow more braking distance. A heavier vehicle takes longer to stop.
- Avoid making sharp turns unless at very slow speeds to avoid tipping or rolling the vehicle.
- Avoid hills and rough terrain. Choose terrain carefully. Added weight affects the stability and handling of the vehicle.

## WARNING

### Uncontrolled Movement Hazard

- Never exceed the stated load capacity for this vehicle.
- Distribute the load evenly.
- Secure cargo in cargo bed.
- Never tow cargo that is not secured.
- Reduce speed and allow greater distances for braking.

## WARNING

### Fall and Thrown Object Hazard

- Do not carry passengers in the cargo bed.

## WARNING

### Fire or Explosion Hazard

- Do not fill fuel containers in the plastic cargo bed.
- Set fuel container on the ground.
- Keep fuel nozzle in contact with can inlet while filling.
- Tighten cap before setting fuel container in cargo bed.

# MAINTENANCE

## PERIODIC MAINTENANCE CHARTS

Regular maintenance is required for the best performance and safe operation of your utility vehicle.

### ⚠ WARNING

**Be sure to turn off the main switch and apply the parking brake when you perform maintenance, unless otherwise specified. If the owner is not familiar with servicing the machine, death or serious personal injury can result. When in doubt, the work should be done by a Yamaha dealer or other qualified mechanic.**

### NOTICE

**Yamaha Golf-Car Company does not approve the use of high-pressure washers to clean the products they manufacture. Doing so may damage the finish on the body or result in doing other damage not covered by warranty.**

CS - CHECK CA - CHECK AND ADJUST R - REPLACE S - SERVICE CL - CLEAN AND LUBRICATE L - LUBRICATE

|                | Remarks                                                                   | Daily<br>Pre-<br>Operation | 20 hours<br>100 miles<br>160 kms<br>(Every<br>Month) | 125 hrs<br>600 mls<br>1000 kms<br>(Every 6<br>months) | 250 hrs<br>1200 mls<br>2000 kms<br>(Every<br>Year) | 500 hrs<br>2500 mls<br>4000 kms<br>(Every 2<br>years) | 1000 hrs<br>5000 mls<br>8000 kms<br>(Every 4<br>years) | Page         |
|----------------|---------------------------------------------------------------------------|----------------------------|------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------|--------------|
| PRE-OP         | Charge                                                                    | S                          | S                                                    | S                                                     | S                                                  | S                                                     | S                                                      | 7-5/<br>7-6  |
|                | Clean battery tops, check for tightness of hold-down screws and terminals | S                          | S                                                    | S                                                     | S                                                  | S                                                     | S                                                      | 7-3/<br>5-2  |
|                | Check brake pedal freeplay and adjust if necessary                        | CS                         | CA                                                   | CA                                                    | CA                                                 | CA                                                    | CA                                                     | 5-4/<br>7-11 |
|                | Check steering operation                                                  | CS                         | CS                                                   | CS                                                    | CS                                                 | CS                                                    | CS                                                     | 5-3          |
|                | Check tire pressure, tread depth, tire surface for damage                 | CS                         | CA                                                   | CA                                                    | CA                                                 | CA                                                    | CA                                                     | 5-2          |
|                | Check body and chassis for damage                                         | CS                         | CS                                                   | CS                                                    | CS                                                 | CS                                                    | CS                                                     | 5-4          |
|                | Check tightness of all bolts, nuts, screws and rivets                     | CS                         | CS                                                   | CS                                                    | CS                                                 | CS                                                    | CS                                                     | *            |
|                | Check reverse alarm operation                                             | CS                         | CS                                                   | CS                                                    | CS                                                 | CS                                                    | CS                                                     | 5-3          |
| EVERY MONTH    | Check electrolyte level                                                   |                            | CS                                                   | CS                                                    | CS                                                 | CS                                                    | CS                                                     | 7-3/7-4      |
|                | Check for loose or broken connections                                     |                            | CS                                                   | CS                                                    | CS                                                 | CS                                                    | CS                                                     | *            |
|                | Check pedal operation                                                     |                            | CS                                                   |                                                       |                                                    |                                                       |                                                        | —            |
| EVERY 6 MONTHS | Check all wire insulation for cracks and/or worn spots                    |                            |                                                      | CS                                                    | CS                                                 | CS                                                    | CS                                                     | *            |
|                | Check shock absorbers for oil leaks and damaged springs                   |                            |                                                      | CS                                                    | CS                                                 | CS                                                    | CS                                                     | *            |

\* Items without a page number reference should be serviced by a Yamaha dealer or other qualified mechanic. This manual does not contain these procedures. They are contained in the Service Manual.

# MAINTENANCE

CS - CHECK CA - CHECK AND ADJUST R - REPLACE S - SERVICE CL - CLEAN AND LUBRICATE L - LUBRICATE

|                  | Remarks                                                                 | Daily<br>Pre-<br>Opera-<br>tion | 20 hours<br>100 miles<br>160 kms<br>(Every<br>Month) | 125 hrs<br>600 mls<br>1000 kms<br>(Every 6<br>months) | 250 hrs<br>1200 mls<br>2000 kms<br>(Every<br>Year) | 500 hrs<br>2500 mls<br>4000 kms<br>(Every 2<br>years) | 1000 hrs<br>5000 mls<br>8000 kms<br>(Every 4<br>years) | Page   |
|------------------|-------------------------------------------------------------------------|---------------------------------|------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------|--------|
| EVERY<br>YEAR    | Perform a discharge test                                                |                                 |                                                      |                                                       | S                                                  | S                                                     | S                                                      | *      |
|                  | Apply Terminal protectant                                               |                                 |                                                      |                                                       | S                                                  | S                                                     | S                                                      | —      |
|                  | Check rear axle bearing play<br>for roughness or free play              |                                 |                                                      |                                                       | CS                                                 | CS                                                    | CS                                                     | *      |
|                  | Check steering knuckle<br>bushing free play / Adjust<br>wheel alignment |                                 |                                                      |                                                       | CA                                                 | CA                                                    | CA                                                     | *      |
|                  | Check wheel nut tightness, front<br>wheel bearing play                  |                                 |                                                      |                                                       | CS                                                 | CS                                                    | CS                                                     | 7-10/* |
|                  | Check transaxle oil level and<br>inspect for leakage                    |                                 |                                                      |                                                       | CS                                                 | CS                                                    | CS                                                     | 7-9    |
|                  | Check pedal stop operation and<br>adjust if necessary                   |                                 |                                                      |                                                       | CA                                                 | CA                                                    | CA                                                     | *      |
|                  | Adjust parking brake release                                            |                                 |                                                      |                                                       | CA                                                 | CA                                                    | CA                                                     | 7-12   |
| EVERY 4<br>YEARS | Replace transaxle oil                                                   |                                 |                                                      |                                                       |                                                    |                                                       | R                                                      | *      |
|                  | Inspect brake shoes and adjust<br>or replace if necessary               |                                 |                                                      |                                                       |                                                    |                                                       | CA                                                     | *      |

\* Items without a page number reference should be serviced by a Yamaha dealer or other qualified mechanic. This manual does not contain these procedures. They are contained in the Service Manual.

# MAINTENANCE

## Battery Care

### WARNING

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with skin, eyes or clothing.

Antidote:

**EXTERNAL:** Flush with water.

**INTERNAL:** Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call physician immediately.

**EYES:** Flush with water for 15 minutes and get prompt medical attention.

Batteries produce explosive gases. Keep sparks, flame, cigarettes, etc., away.

Ventilate when charging or using in an enclosed space. Always shield eyes when working near batteries.

**KEEP OUT OF REACH OF CHILDREN.**

Eight 6-volt deep cycle batteries provide power for your electric utility vehicle and must be properly maintained and recharged for maximum performance and service life.

To maintain your batteries:

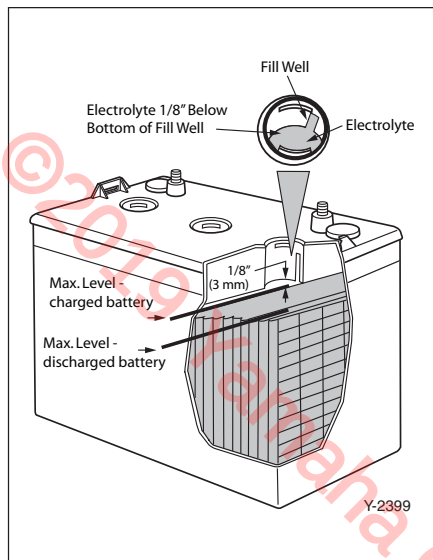
1. Clean the tops of the batteries with a solution of baking soda and water, as necessary, to remove corrosion.

### NOTICE

**Do not allow cleaning solution to enter battery cells. Serious battery damage can result.**

2. Check the fluid level before and after charging.

# MAINTENANCE



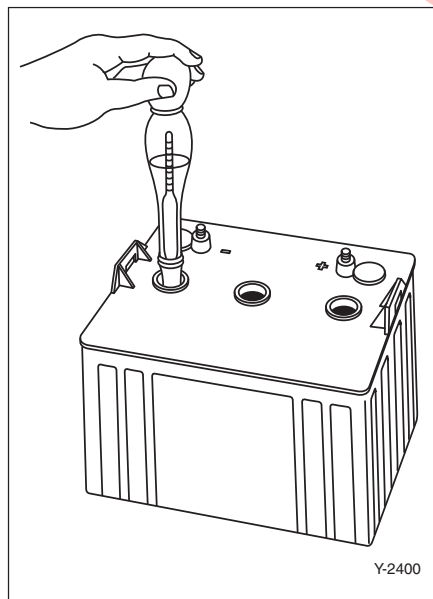
- **Before charging:** only add distilled water if fluid is below the top of the plates, and then add just enough to cover plates.
- **After charging:** open the vent caps and look inside the fill wells. Add distilled water until the electrolyte level is 3 mm (1/8") below the bottom of the fill well. A piece of rubber can be used safely as a dipstick to help determine this level. Clean, replace and tighten all vent caps.

## NOTICE

**Normal tap water contains minerals which are harmful to a battery; therefore, refill only with distilled water.**

3. Using a hydrometer, check the specific gravity of the battery fluid in each cell against the readings on the chart below. Consult a Yamaha dealer if any low readings are found, or if readings vary more than one point between cells.

| Temperature |     | Satisfactory Uncorrected Hydrometer Reading |
|-------------|-----|---------------------------------------------|
| °C          | °F  |                                             |
| 48.9        | 120 | 1.244                                       |
| 43.3        | 110 | 1.248                                       |
| 37.8        | 100 | 1.252                                       |
| 32.2        | 90  | 1.256                                       |
| 26.7        | 80  | 1.260                                       |
| 21.1        | 70  | 1.264                                       |
| 15.6        | 60  | 1.268                                       |
| 10.0        | 50  | 1.272                                       |
| 4.4         | 40  | 1.276                                       |
| -1.1        | 30  | 1.280                                       |



[illegible]

**⚠ WARNING**

**⚠ WARNING**

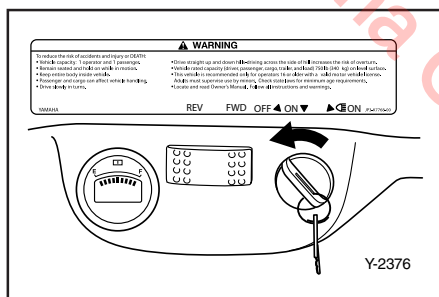
To charge the batteries in your utility vehicle, follow the instructions contained in your battery charger's owner's manual. The following is a summary of the charging steps.

**Do not attempt to recharge your utility vehicle's batteries without thoroughly reading and understanding the owner's manual provided with your charger.**

1. Turn main switch key to “OFF” position.

**Always put the tow switch in the TOW position before charging battery or damage to the electrical system may result.**

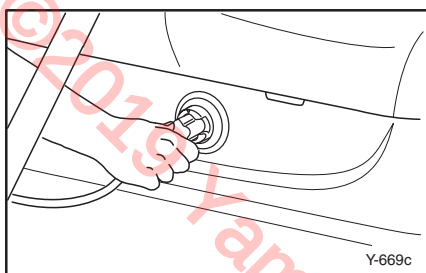
2. Lift up the seat and move the tow switch to the TOW position.



# MAINTENANCE

## NOTICE

Use only battery chargers that are rated for use with 48-volt Yamaha utility vehicles. Otherwise, serious battery damage can result. Thoroughly read and understand the user manual supplied with your 48-volt charger.

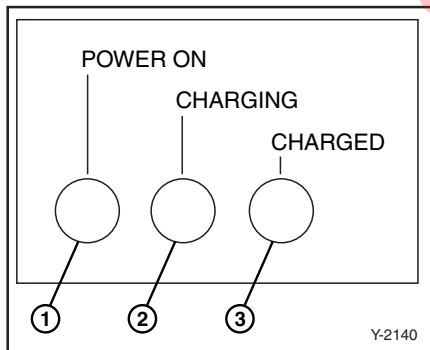


3. With the charger properly connected and grounded (see charger's owner's manual), insert the DC output into the DC charger receptacle.

## ⚠ WARNING

Do not disconnect the DC output cord from the DC charger receptacle when the charger is on or an arc could occur that may cause an explosion.

7



- ① Red Power ON LED
  - ② Yellow Charging LED
  - ③ Green Charged LED
4. When the charger is plugged into the AC power, the Power ON LED illuminates continuously.
  5. If any of the LEDs blink for several minutes after the charger is turned on, there is a problem with the batteries or the charger. Contact your Yamaha Dealer.
  6. During normal charging, the Charging LED continually illuminates.
  7. The Charged LED illuminates automatically when the batteries reach full charge.

# MAINTENANCE

- After the Charged LED is illuminated, disconnect the DC output plug from the DC charger receptacle by grasping the plug body and pulling the plug straight out of the receptacle.

## Battery Installation

### ⚠ WARNING

When working with batteries, do not put wrenches or other metal objects across the battery terminals. An arc can occur causing explosion of the battery.

- Install the battery hold-down plates and torque to 7-9 Nm, 0.7-0.9 m•kg (62-80 in•lb) as shown.

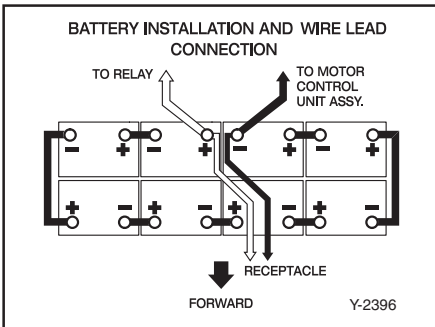
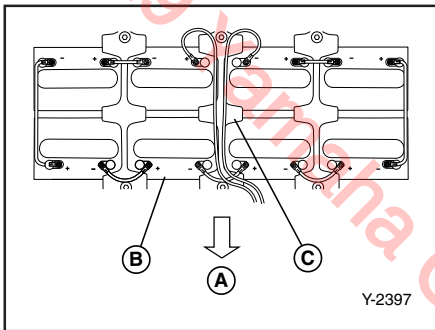
- (A) Forward
- (B) Battery
- (C) Battery hold-down plate

- Connect the wire leads and torque to 9-10 Nm, 0.9-1.0 m•kg (80-89 in•lb) as shown.

### ⚠ WARNING

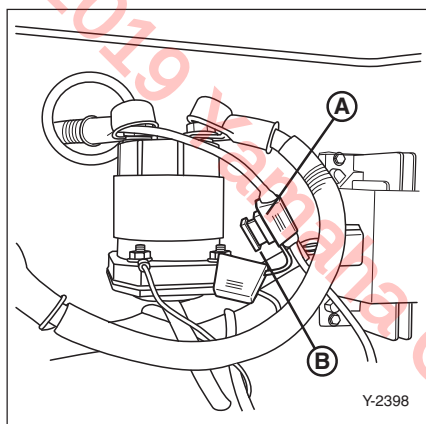
When installing batteries:

- Carefully place battery cables and hold-downs making sure that cables do not lay across vent caps.
- Always remove the negative (-) cable to the motor controller first and install it last.



# MAINTENANCE

7



Fuse Type:  
10 Amp, Blade Style

## NOTICE

Do not over-tighten the battery holddown nuts. Excessive force will damage the battery casing.

## Fuse Replacement

### ⚠ WARNING

Be sure to use the specified fuse. Using a wrong fuse can cause electrical system damage and create a fire hazard.

## NOTICE

When replacing a fuse, be sure the main switch is turned off to prevent accidental short-circuiting and electrical system damage.

1. Locate the in-line fuse holder on the main wire harness adjacent to the tow switch.
2. Pull fuse holder cover off.
3. Pull fuse out, inspect and replace if necessary.

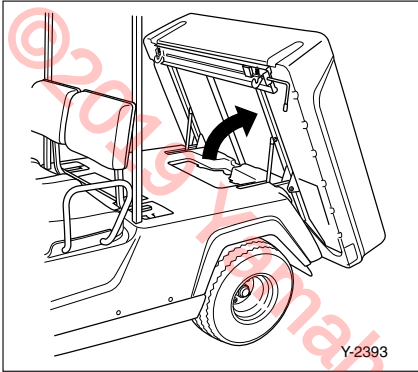
- Ⓐ Fuse holder  
Ⓑ Fuse

# MAINTENANCE

## Transaxle Oil

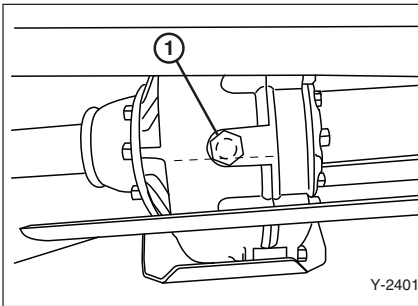
### To check transaxle oil level:

1. Place the utility vehicle on a flat, level surface.
2. Raise the cargo bed.
3. Place an oil pan under the transaxle case.
4. Clean the area around the oil level plug ① and then remove the plug.



### NOTICE

**Do not allow foreign material to enter transaxle. Serious transaxle damage can result.**

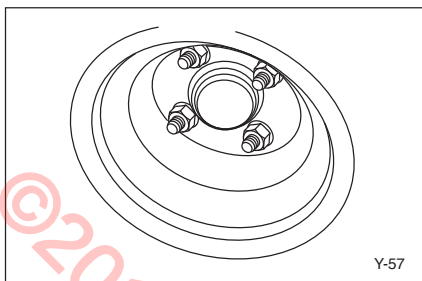


5. The oil level should be right at the bottom of the oil level plug hole or just starting to flow out of the hole.
6. If needed, add SAE 90 gear oil until it starts to flow from the oil level plug hole.
7. Allow excess gear oil to flow out of the hole until it stops.
8. Install the oil level plug.
9. Lower the cargo bed.

### TIP

For transaxle oil replacement, consult a Yamaha dealer or other qualified mechanic.

# MAINTENANCE



## **⚠ WARNING**

Before performing wheel or brake maintenance, verify that the main switch is in the “OFF” position. Accidental starting of the vehicle could cause the vehicle to move, causing death or serious personal injury.

## Wheel Replacement

To remove and install a wheel on your utility vehicle:

1. With the wheels blocked to prevent the utility vehicle from moving, loosen the wheel nuts.
2. Elevate the utility vehicle with a jack and remove the wheel nuts and the wheel.
3. Reverse the removal steps when installing the wheel.

## Brake Adjustment

The brakes on your utility vehicle are self-adjusting.

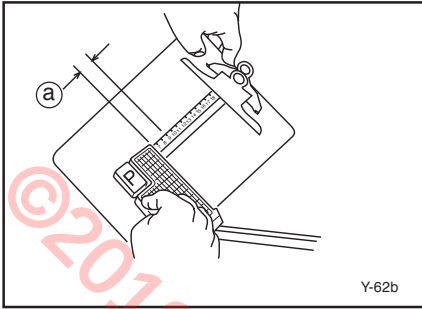
Before you operate the vehicle, press down on the brake pedal several times to make sure the brakes are functioning properly.

## **⚠ WARNING**

Consult your Yamaha dealer before using your utility vehicle if you suspect brake problems. Brake failure could result in a serious accident.

Wheel nut tightening torque:  
88 Nm, 8.8 m·kg (65 ft·lb)

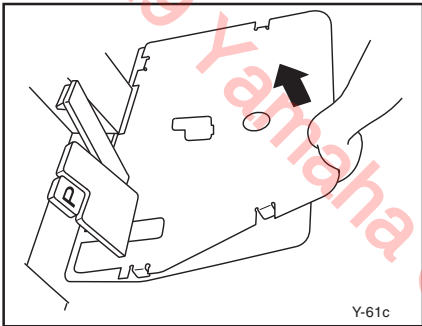
# MAINTENANCE



## Brake Pedal Free Play Adjustment

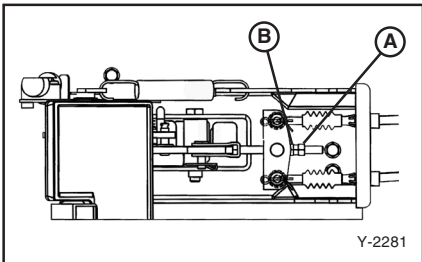
Check the brake pedal free play by pressing against the pedal with two fingers (using light force) and measuring the distance the pedal travels before resistance is felt.

Brake pedal free play (a):  
20-25 mm (0.79-0.98 in.)



To adjust the brake pedal free play:

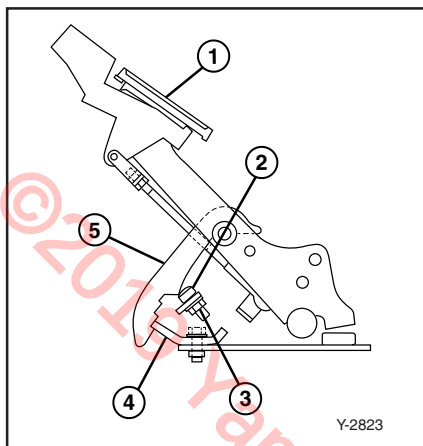
1. Remove the floor mat and service lid from the floor of the utility vehicle.
2. If the free play distance needs adjusting, loosen the lock nut (A) and turn the adjusting nut (B) in or out until the free play specification is met. Then tighten the lock nut in place.



### **WARNING**

Do not over-tighten the brake cables. Over-tightening will increase brake wear and affect the overall performance of the vehicle. Premature brake wear can result. Death or serious personal injury can result from failing to comply with the warning labels in this manual.

# MAINTENANCE



## Parking Brake Release Adjustment

### NOTICE

Before performing parking brake release adjustment, adjust brake pedal free play.

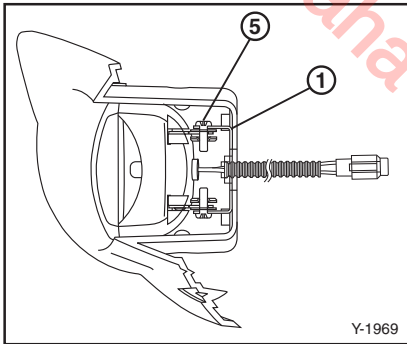
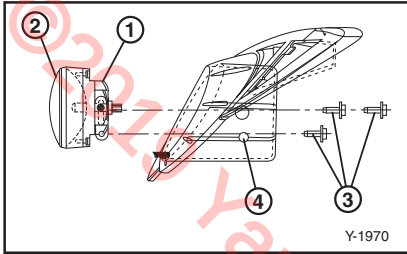
1. Apply pressure to the parking brake pedal until the brake nail catches the first latch position on the sector.
2. Loosen the locknut and turn the bolt counterclockwise until it contacts the sector.
3. Turn the bolt clockwise  $\frac{3}{8}$  (120 degrees), then tighten locknut.

- ① Parking brake pedal
- ② Bolt
- ③ Locknut
- ④ Brake nail
- ⑤ Sector

# MAINTENANCE

## Replacing a Headlight Bulb

If the headlight burns out, replace it as follows:



1. Remove the bulb holder ① and bulb ② by removing the three screws ③ located on the back of the bezel ④.
2. Disconnect the wire connectors from the bulb.
3. Remove the two screws ⑤ located on the side of the bulb holder ① to gain access to the headlight bulb ②.
4. Insert a new bulb ② into the bulb holder ① and secure with the two bulb holder screws ⑤. Torque to 3 ~ 4.5 Nm, 0.3 ~ 0.45 m•kg (27 ~ 40 in•lb).
5. Reattach the bulb holder ① to the bezel ④ and torque to 3 ~ 4.5 Nm, 0.3 ~ 0.45 m•kg (27 ~ 40 in•lb).

# MAINTENANCE

## Adjusting a Headlight

### NOTICE

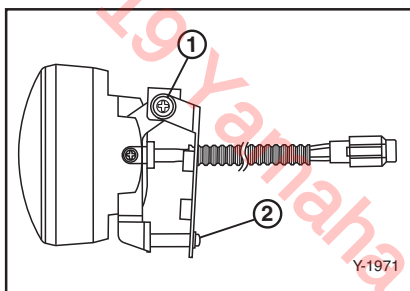
It is recommended to have the headlight adjustment performed by a Yamaha dealer.

1. Loosen the two screws ① for the headlight bulb bracket. Do not remove the screws, just loosen them.

### TIP

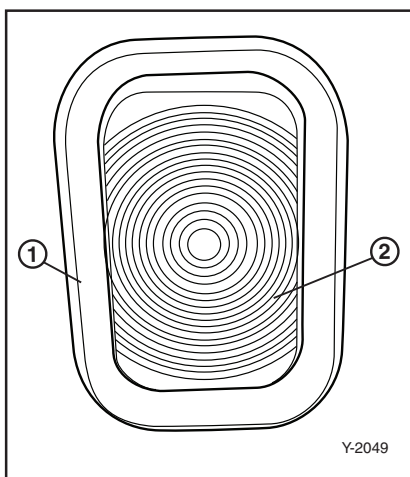
The screws can be accessed from under the fender through the access holes on the sides of the headlight bezel.

2. Using a Phillips head screwdriver, turn the adjusting screw ②. Turning the screw clockwise will lower the beam and turning the screw counterclockwise will raise the beam.
3. Once the correct adjustment has been made, tighten the screws ① to 3 ~ 4.5 Nm, 0.3 ~ 0.45 m•kg (27 ~ 40 in•lb).



## Replacing a Taillight Bulb

1. Disconnect the wire connector from the taillight.
2. Pull the rubber seal ① away from the body while pushing on the back of the taillight ②.
3. Remove the seal ① and the taillight ②.
4. Install the rubber seal into the body first.
5. Carefully push the new taillight into the seal. Make sure the seal stays seated in the rear body and the taillight is seated properly in the groove in the rubber seal.
6. Connect the wire connector.



## STORAGE

Perform the following preparations when storing your utility vehicle for extended periods of time:

### NOTICE

**Yamaha Golf-Car Company does not approve the use of high-pressure washers to clean the products they manufacture. Doing so may damage the finish on the body or result in doing other damage not covered by warranty.**

### TIP

Turn the main switch key to the OFF position, remove the key and store the key in a safe place.

## CHASSIS PREPARATION

1. Verify the tire pressure is set to:  
Front: 68-82 kPa (10-12 psi)  
Rear: 241-255 kPa (35-37 psi)
2. Clean exterior of the utility vehicle and apply a rust inhibitor.
3. Cover the utility vehicle with a breathable cover and store it in a dry, well-ventilated area.

## BATTERY PREPARATION

1. Recharge the batteries and check the fluid levels at least once a month.

### NOTICE

**Do not allow cleaning solution to enter battery cells. Serious battery damage can result.**

2. Clean the tops of the batteries with a solution of baking soda and water, as necessary, to remove corrosion.

# SPECIFICATIONS

## GENERAL SPECIFICATIONS

| Items                                                                                                                                                                                                                                                   | YTF2EX7 UTILITY VEHICLE                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Dimensions:</b><br>Overall length<br>Overall width<br>Overall height (steering height)<br>Height of floor<br>Wheelbase<br>Tread:<br>Front<br>Rear<br>Cargo bed size<br>Overall length<br>Overall width<br>Overall height<br>Minimum ground clearance | 2922 mm (115 in.)<br>1243 mm (48.9 in.)<br>1200 mm (47.2 in.)<br>300 mm (11.8 in.)<br>1917 mm (75.5 in.)<br>990 mm (39.0 in.)<br>980 mm (38.6 in.)<br>1209 mm (47.5 in.)<br>1243 mm (48.9 in.)<br>356 mm (14.0 in.)<br>115 mm (4.5 in.) |
| <b>Weight:</b><br>Dry weight (with suntop,<br>without batteries)                                                                                                                                                                                        | 372 kg (819 lb)                                                                                                                                                                                                                         |
| <b>Performance:</b><br>Factory speed setting<br>Maximum speed<br>Minimum turning radius<br>Seating capacity<br>Vehicle rated capacity<br>Cargo bed capacity<br>Towing capacity<br>Tongue weight<br>Gross vehicle weight                                 | 25.0 km/h (15.5 mph)<br>31.5 km/h (19.6 mph)<br>2.8 m (9.2 ft)<br>Two occupants per seat<br>590 kg (1300 lb)<br>362 kg (798 lb)<br>454 kg (1000 lb)<br>45 kg (100 lb)<br>1186 kg (2613 lb)                                              |

# SPECIFICATIONS

## TRANSMISSION

| Items                        | YTF2EX7 UTILITY VEHICLE                                                                                                                                                                                                 |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Differential/reduction gear: | Secondary reduction system helical gear<br>Secondary reduction ratio:<br>Forward 11.34:1; Reverse 15.25:1<br>Differential type bevel gear<br>Lubricant/capacity Yamalube SAE 90<br>gear oil/355 cc (355 mL, 0.38 US qt) |

## BATTERIES

| Items    | YTF2EX7 UTILITY VEHICLE                                       |
|----------|---------------------------------------------------------------|
| Battery: | Trojan - Golf Car Type T-105 (8x6volt)<br>RC: minimum 117 min |

# SPECIFICATIONS

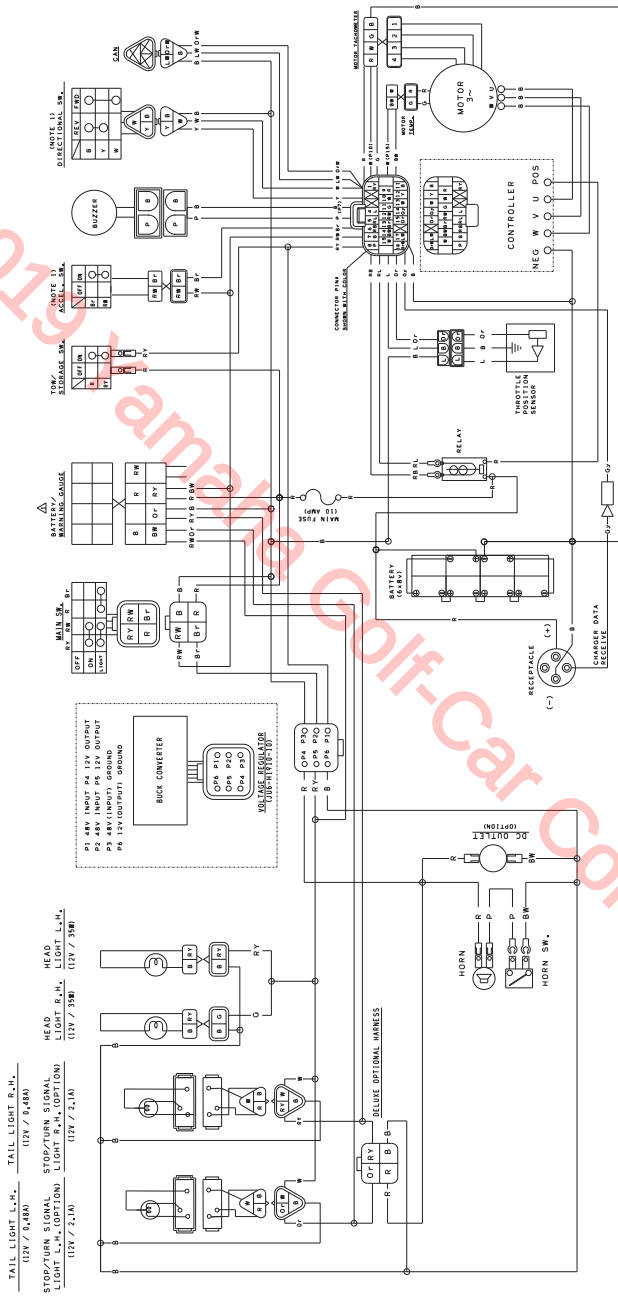
## CHASSIS

| Items                                                                                                                              | YTF2EX7 UTILITY VEHICLE                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suspension:<br>Front<br>Rear<br>Lights:<br>Bulb voltage, wattage x quantity:<br>Headlight<br>Taillight                             | Independent (oil-over strut type)<br>Pivoted trailing arm (mono-link)<br><br>12 V, 35 W x 2<br>12 V / 2.1 amp and .48 amp x 2                                                                       |
| Steering system:<br>Type<br>Steering angle (L.H.)<br>Steering angle (R.H.)                                                         | Rack and Pinion<br>1.85 turn<br>1.85 turn                                                                                                                                                           |
| Brakes:<br>Brake system – front and rear<br>Type of brake<br>Brake pedal free play linkage<br>adjustment<br>(Brake cable end play) | Dual mechanical drum<br>Cable-activated drum brake<br><br>20-25 mm (0.79-0.99 in.)<br>0.1-0.5 mm (0.004-0.02 in.)                                                                                   |
| Parking brake:<br>Type                                                                                                             | Foot type; parking brake with automatic<br>release.                                                                                                                                                 |
| Wheel:<br>Tire size:<br>Front<br>Rear<br>Rim size:<br>Tire pressure:<br>Front<br>Rear                                              | 18 x 8.50–8.00/4-ply turf type<br>18 x 8.50–8.00/6-ply turf type<br>7.00–I–8.00<br><br>68-82 kPa, 0.69-0.84 kgf/cm <sup>2</sup> (10-12 psi)<br>241-255 kPa, 2.5-2.6 kgf/cm <sup>2</sup> (35-37 psi) |
| Body color:                                                                                                                        | Tortuga                                                                                                                                                                                             |

# YTF2EX7 WIRING DIAGRAM

# WIRING

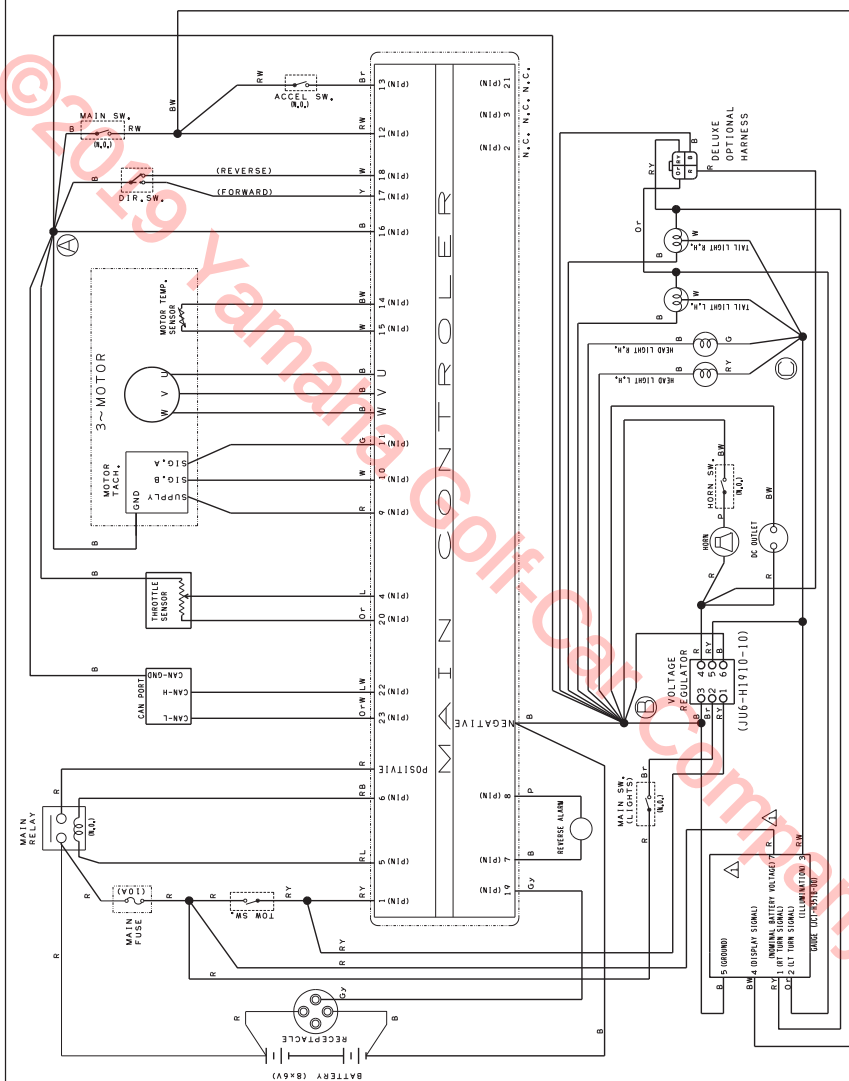
Y-2394



# WIRING

# YTF2EX7 WIRING DIAGRAM

Y-2395



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