



## OWNER'S / OPERATOR'S MANUAL



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

# YDRE

## 48 VOLT PERSONAL TRANSPORT VEHICLE

## INTRODUCTION

Congratulations on your purchase of a Yamaha Personal Transport Vehicle (PTV). This manual contains information you will need for proper operation, maintenance, and care of your PTV. 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 PTV, please consult a Yamaha dealer.

**YAMAHA GOLF-CAR COMPANY**

**YDRE PTV Owner's/Operator's Manual  
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2nd edition**

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LIT-19626-18-13**



JC1-F8199-21

# 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 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 PTV 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 PTV 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 PTV. This manual should be considered a permanent part of your PTV and should remain with the PTV when resold.

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# WARRANTY

## LIMITED 4-YEAR PERSONAL TRANSPORT VEHICLE LIMITED WARRANTY

1

Yamaha Golf-Car Company hereby warrants that any new YDRA gas or YDRE electric Yamaha Personal Transport Vehicle (PTV) purchased from an authorized Yamaha golf car dealer in the United States will be free from defects in material and workmanship for FOUR years from date of purchase, subject to the stated limitations.

**DURING THE PERIOD OF WARRANTY** any authorized Yamaha golf car dealer 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.

**GENERAL 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 PTV.
- Damage due to improper transportation.
- Acts of God, i.e. lightning, hail damage, flooding, fire, etc.

### WARRANTY COVERAGE:

**Year 1:** The first year of warranty shall cover the entire vehicle except for the Specific Exclusions below.

**Year 2:** The second year exclusions are the YDRA battery, body parts, seats, mats, bumper assembly, bag carrier, scorecard holder, trim, and the Specific Exclusions below.

**Year 3:** The third year exclusions include the second year exclusions, plus the control cables and electrical system (except electronic speed controller, battery charger, and electric motor), and the Specific Exclusions below.

**Year 4:** The fourth year of the warranty covers only the electric motor, speed controller, battery charger, and transaxle on the YDRE and the engine, clutch system (except drive belt), and transaxle on the YDRA.

**SPECIFIC EXCLUSIONS:** Specific exclusions from this warranty shall include the following:

- Electric car batteries, which are covered under a separate warranty.

- Any parts replaced due to normal wear or routine maintenance, including oil and air filter elements, 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 high parasitic current draw, unless the vehicle is equipped from the factory with an optional deep cycle starting battery.

**THE CUSTOMER'S RESPONSIBILITY** under this warranty shall be to:

- Operate and maintain the PTV and charger as specified in the appropriate Owner's/Operator's Manual;
- 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 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 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 GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY, FROM STATE TO STATE.**

Yamaha Golf-Car Company,  
NEWNAN, GEORGIA 30265-1320

EFFECTIVE DATE: 6/1/11

LIT-13710-P3-11

# WARRANTY

1

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

YAMAHA Golf-Car Company (herein referred to as "YGC") hereby warrants to the Original Retail Purchaser or Lessee of a YAMAHA YDRE golf car or PTV, U-MAX or Adventurer utility vehicle, or YAMAHA transportation or specialty vehicle purchased from an Authorized YGC Dealer, that the Trojan batteries charged with a YAMAHA supplied battery charger will be free from defects in materials and workmanship, and will provide "36-hole performance" for a period of four-years or "1,000 rounds" from the date of purchase, whichever event occurs first, subject to the terms and conditions contained herein.

This limited warranty covers defects in materials and workmanship only for a period of four-years or "1,000 rounds", as applicable, from date of purchase, whichever event occurs first. The terms of this FOUR-YEAR LIMITED WARRANTY shall be to furnish one or more replacement batteries within the four-year period or before 20,000 amp-hours are discharged, whichever event occurs first, as determined by YGC using the information recorded and stored in the Genius controller.

- This warranty only applies to factory installed Trojan battery sets charged with a Yamaha supplied battery charger.
- "1,000 rounds" means 20,000 amp-hours discharged, as recorded in the Genius controller.
- 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. Maintenance records must be kept.
- Replacement batteries may be of a different brand or capacity, but are warranted to provide 36-hole performance for the remainder of the 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-TEMP)/100) x 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 batteries 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.

**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.

### 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, which is identical or reasonably equivalent to the warranted product at no cost to the purchaser during the limited warranty period, except for labor or transportation expenses.

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 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 contact Yamaha Golf-Car Company toll free at (877) 811-8250.

Yamaha Golf-Car Company,  
NEWNAN, GEORGIA 30265-1320  
EFFECTIVE DATE: 06/01/11

LIT-13710-EL-11

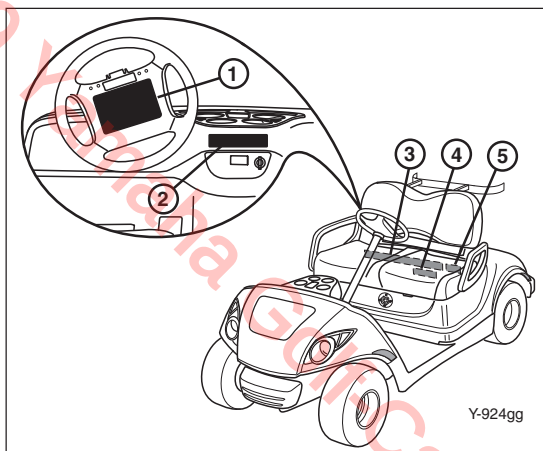
# IMPORTANT LABELS

## SAFETY AND INSTRUCTION LABELS

### WARNING

2

Please read the following labels carefully before operating your PTV, 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.



①

### WARNING

#### IMPROPER USE CAN RESULT IN SEVERE INJURY OR DEATH.

- 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.
- This vehicle is capable of speeds over 15 mph and therefore does not conform to standards for golf cars (ANSI Z130.1). Do not use on golf course unless specifically allowed by golf course's management.
- If golf course use is allowed, remember that your vehicle may go faster than the maximum speed the course pathway designer intended. You could lose control and have an accident if you are going faster than the speed the path was designed to accommodate.
- Locate and read Owner's Manual. Follow all instructions and warnings.

### 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

JCO-K7458-00

# IMPORTANT LABELS

## WARNING

DEATH OR SEVERE PERSONAL INJURY CAN RESULT FROM FAILURE TO FOLLOW THESE INSTRUCTIONS.

- Read the label located on the steering wheel before operation.
- Operate only when authorized and only in designated areas.
- Operate from driver's side only.
- Do not allow more than two occupants per seat.
- Do not start vehicle until all occupants are seated.
- Remain seated and hold on when in motion.
- Keep entire body inside vehicle
- Drive slowly in turns.

REV FWD ON OFF ON

YAMAHA

JC1-K768-00

(3)

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|------------------------------------------------------|------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>BATTERY INSTALLATION AND WIRE LEAD CONNECTION</p> | <p>INSTALLATION DES BATTERIES ET RACCORDEMENT DES FILS</p> |  | <p><b>▲ WARNING</b><br/>Explosive gases are released when batteries are charged. • Keep sparks, flames and cigarettes away. • Do not smoke. • Do not use open flames.</p> | <p><b>▲ AVERTISSEMENT</b><br/>Les gaz explosifs se dégagent lors de la charge ou décharge des batteries. • Éviter les étincelles, les flammes et les cigarettes. • Ne pas fumer. • Ne pas utiliser de flamme ouverte.</p> |  | <p><b>▲ WARNING</b><br/>Cables add-on batteries will burn skin, eyes, and hair. • Do not touch battery. • Keep away from face. • Do not use open flames. • Do not use water and oil. • Do not use a fire extinguisher.</p> | <p><b>▲ AVERTISSEMENT</b><br/>L'ajout de câbles aux batteries brûlera la peau, les yeux, les cheveux et les vêtements. • Ne pas toucher la batterie. • Garder les câbles loin du visage. • Ne pas utiliser de flamme ouverte. • Ne pas utiliser d'eau et d'huile. • Ne pas utiliser d'extincteur.</p> |  | <p><b>▲ WARNING</b><br/>Electrical shocks can result in burns. • Do not make connections to the battery terminals. • Do not use open flames. • Do not use water and oil. • Do not use a fire extinguisher.</p> | <p><b>▲ AVERTISSEMENT</b><br/>Les courts-circuits électriques peuvent causer des brûlures. • Ne pas faire de connexions aux bornes de la batterie. • Ne pas utiliser de flamme ouverte. • Ne pas utiliser d'eau et d'huile. • Ne pas utiliser d'extincteur.</p> | <p><b>▲ AVERTISSEMENT</b><br/>No courts-circuits électriques peuvent causer des brûlures. • Ne pas faire de connexions aux bornes de la batterie. • Ne pas utiliser de flamme ouverte. • Ne pas utiliser d'eau et d'huile. • Ne pas utiliser d'extincteur.</p> |
|------------------------------------------------------|------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

(4)

## 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.

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

## TOW SWITCH



YAMAHA

JW9-KS298-10

## IMPORTANT LABELS

2

⑤

YEAR OF CONSTRUCTION: 20XX

YAMAHA MOTOR POWERED PRODUCTS CO., LTD.

200-1 SAKAGAWA, KAKEGAWA, JAPAN

MAX. BATTERY WEIGHT: XXX kg

MODEL: YDREX PTV

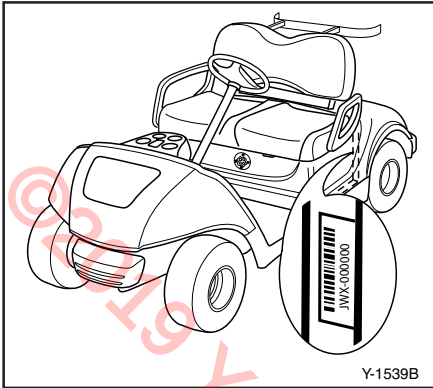
MAX. POWER: X.X KW

WEIGHT (NO BATT): XXX kg

JXX-F4236-XX

Y-1607e

## IMPORTANT LABELS



### PTV SERIAL NUMBER

The PTV serial number 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 Golf-Car Company dealer.

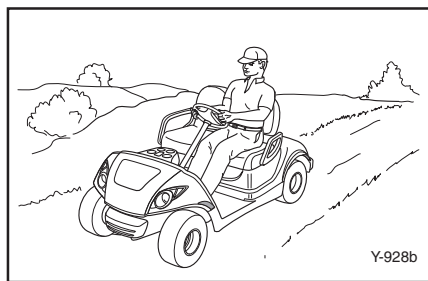


## OPERATOR SAFETY

Yamaha PTVs 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 PTV

- Read this Owner's/Operator's manual and all safety and instruction labels on the PTV before operating.
- Perform the pre-operation checks found in Section 6 of this manual.
- Only authorized people should drive the PTV, from the driver's side only, and only in designated areas.
- Do not allow more than two occupants per seat. This PTV is restricted to two occupants, unless equipped with a rear seat.
- Do not operate the PTV while under the influence of alcohol or drugs; their effect on vision and judgment make operating a PTV dangerous.
- Do not operate the PTV on public streets, roads or highways; unless allowed by law or local regulating authority.



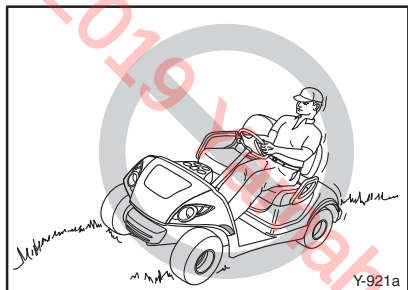
### WHILE OPERATING THE PTV

- Keep your entire body inside the PTV, remain seated, and hold on when the car is in motion.
- Do not start the PTV until all occupants are seated.
- Keep your hands on the steering wheel and your eyes on the path ahead.



## OPERATOR SAFETY

- Use extra care in congested areas or when backing up. Always back up slowly, and watch carefully.
- Avoid starting or stopping abruptly.
- Vary the speed of the PTV to match the terrain.
- Avoid turning the steering wheel too sharply at higher speeds to avoid tipping or rolling the vehicle.
- Always drive slowly straight up or straight down slopes – never at an angle to avoid tipping or rolling the vehicle.
- 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.





## SAFETY CONSIDERATIONS

Like all machines, PTVs can cause injury if improperly used or maintained.

Experience has shown that PTVs are safe when operated in accordance with the safety warnings affixed to every PTV.

### DRIVER QUALIFICATIONS

4

Allow only authorized people to operate PTV. It is recommended that only people who possess a valid motor vehicle driver's license be allowed to operate PTV.

**Do Not Operate PTVs When Under The Influence of Alcohol or Drugs**

#### WARNING

**Do not operate PTVs when under the influence of alcohol or drugs. Death or serious personal injury can result from failing to comply with the warning instructions in this manual.**

### HAZARD PREVENTION

Drivers should be mindful of road hazards, and avoid dangerous situations that may include the following:

**Steep Grades** – Where steep grades exist, restrict PTV to designated roadway or path, and descend slowly with foot on the brake.

#### WARNING

**Descend steep grades slowly with foot on brake. Death or serious personal injury can result from failing to comply with the warning instructions in this manual.**

**Sharp Turns, Blind Corners and Bridge Approaches** – Adhere to all warning signs and take proper precautions to avoid the hazard.

**Wet Areas** – Wet grass may cause a PTV to lose traction and may affect stability. Vehicle operators should reduce speed in wet areas or during periods of inclement weather.



## SAFETY CONSIDERATIONS

- **Loose Terrain** – Avoid areas of loose terrain which may cause a PTV to lose traction and affect stability. Take notice of conditions and reduce speed when driving on uneven or loose terrain.
- **Pedestrian Areas** – Avoid areas with pedestrian traffic or congested areas whenever possible to prevent accidents. If it is impractical to avoid these areas, always remember that pedestrians have the right of way. When approaching pedestrian or congested area always reduce speed, drive slowly, use caution and watch for pedestrians.

## MAINTENANCE REQUIRED FOR PTV SAFETY

Practice the following to help ensure the safety of PTV occupants:

- **Preventative Maintenance.** Perform all scheduled maintenance in accordance with manufacturer's recommendations to provide a safe, properly operating PTV.
- **Personnel.** Allow only qualified, trained and authorized personnel to inspect, adjust and maintain PTVs.
- **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 PTVs, 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 CONSIDERATIONS

### 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 PTV before beginning any maintenance to avoid any unexpected vehicle movement.
- Properly block chassis before working underneath PTV 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 PTV, disable the car's electrical system in accordance with the manufacturer's instructions to avoid electrical shock or damage to the electrical system.
- Use only properly insulated tools when working on electrically powered PTVs 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.

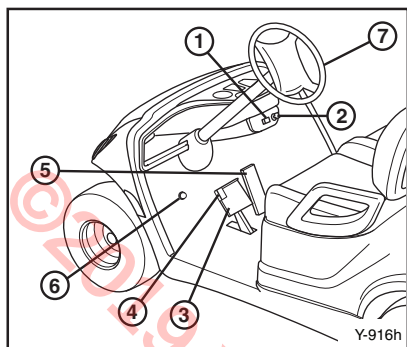
- Record all maintenance performed in a maintenance record log by date, name of person performing maintenance and type of maintenance. Periodically inspect maintenance log to ensure accurate and complete entries.
- Provide operator comment cards to assist in identifying non-periodic maintenance needs for specific PTVs.
- 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:

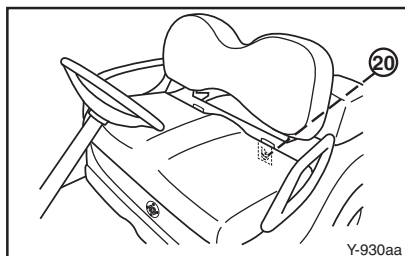
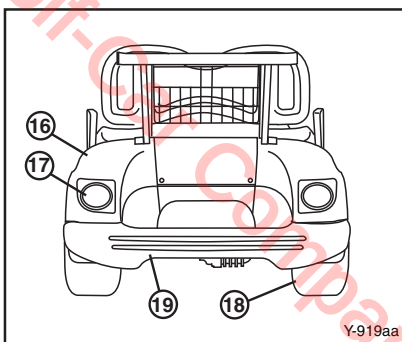
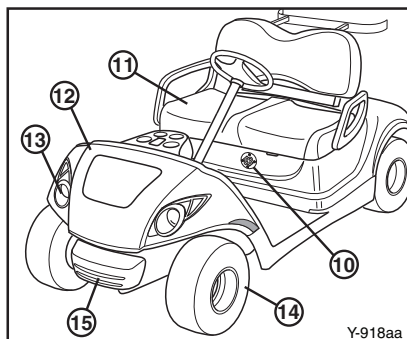
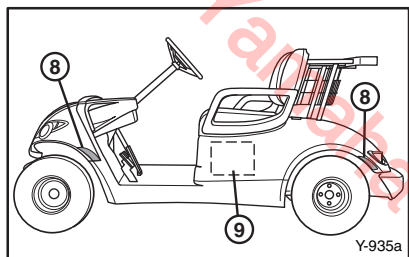
- Only use battery changing and charging facilities and procedures that are in accordance with applicable ordinances and regulations to avoid explosions, electrical shock or damage to the electrical system.
- Periodically inspect charging facilities and procedures to be certain that applicable safety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

# CONTROLS



## FEATURES

- |                       |                         |
|-----------------------|-------------------------|
| ① Drive select switch | ⑩ DC charger receptacle |
| ② Main/light switch   | ⑪ Seat                  |
| ③ Brake pedal         | ⑫ Front body            |
| ④ Parking brake pedal | ⑬ Headlights            |
| ⑤ Accelerator pedal   | ⑭ Front tire            |
| ⑥ Horn switch         | ⑮ Front bumper          |
| ⑦ Steering wheel      | ⑯ Rear body             |
| ⑧ Reflector           | ⑰ Taillights            |
| ⑨ Batteries           | ⑱ Rear tire             |
|                       | ⑲ Rear bumper           |
|                       | ⑳ Tow switch            |



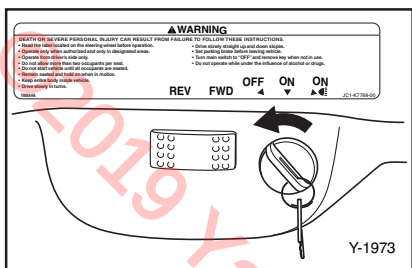
## CONTROLS

## MAIN SWITCH

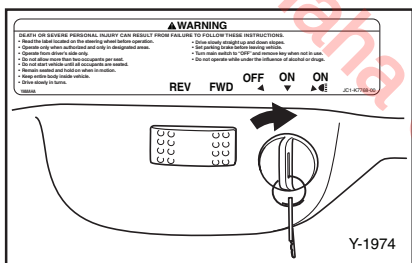
The main switch controls the following items:

“OFF”

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

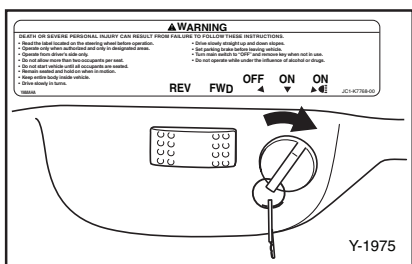


5



“ON”

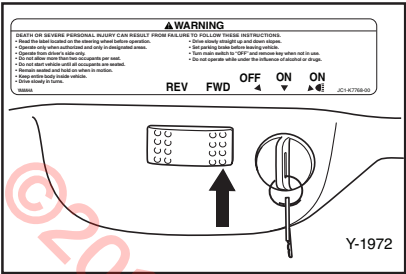
Electrical circuits are switched on.  
The vehicle can be driven.



## “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.

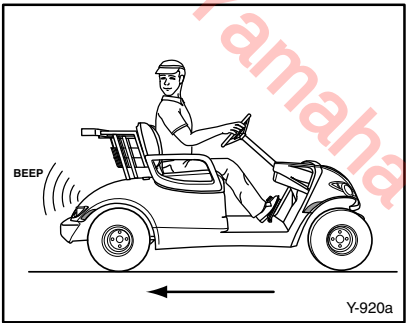
## CONTROLS



## DRIVE SELECT SWITCH

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

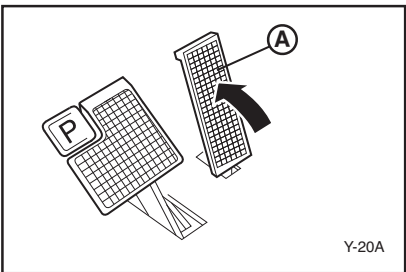
| Switch Position | Car Movement |
|-----------------|--------------|
| FWD             | FORWARD      |
| REV             | REVERSE      |



### TIP

The reverse alarm will sound when the drive select switch is depressed to the “REV” position.

5

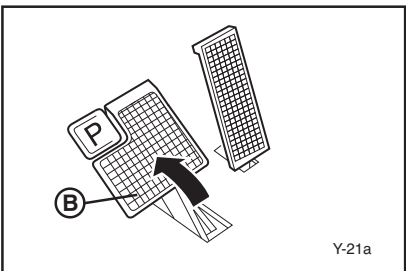


## ACCELERATOR PEDAL

The accelerator pedal controls the PTV's speed.

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

Ⓐ Accelerator pedal

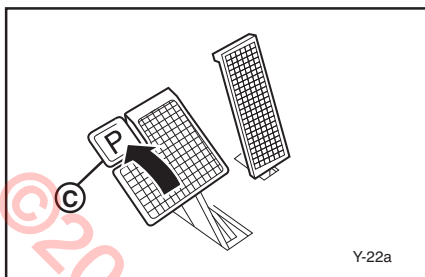


## BRAKE PEDAL

Press down on the brake pedal to stop the PTV.

Ⓑ Brake pedal

# CONTROLS



## PARKING BRAKE PEDAL

Press down on the parking brake pedal whenever parking the PTV.

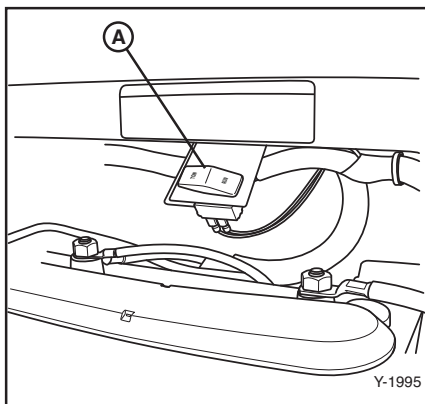
© Parking brake pedal

## 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 PTV to move. Death or serious personal injury can result from failing to comply with the warning labels in this manual.



## TOW SWITCH

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

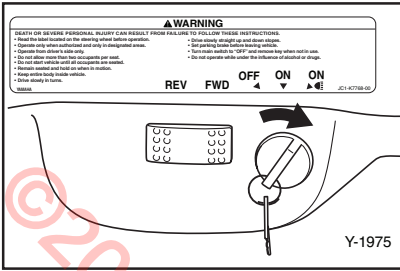
Ⓐ Tow switch

## NOTICE

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

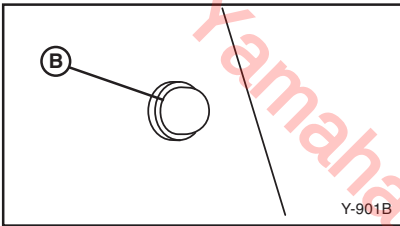
After moving switch from “RUN” to “TOW,” wait 15 seconds minimum before switching again. Failure to do so may lead to drive system damage while towing.

CONTROLS



## 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.

ⓑ Horn Switch

**TIP**

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

# PRE-OPERATION CHECKS

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

## **⚠ WARNING**

To keep car from moving while performing pre-operation checks:

- Remove main switch key.
- Apply parking brake.

Death or serious personal injury can result from failing to comply with the warning labels in this manual.

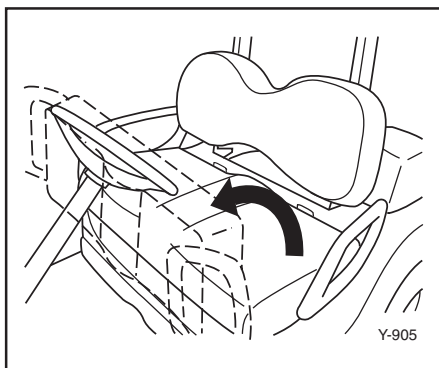
## PRE-OPERATION CHECKLIST

Before each use check the following:

- ☐ Batteries
- ☐ Tire condition
- ☐ Steering system
- ☐ Reverse alarm
- ☐ Pedal operation
- ☐ Headlight/Taillight operation
- ☐ Horn operation
- ☐ Body and chassis

## SEAT

Open the seat for checking and servicing.



# PRE-OPERATION CHECKS

## BATTERY

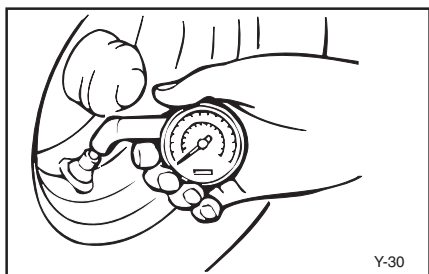
Charge batteries before each use. See charging steps in Chapter 8, *Maintenance*.

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.**

6



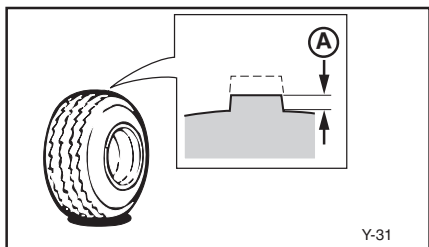
## TIRE CONDITION

### Tire Air Pressure

Check the tire air pressure before operating the PTV.

Tire pressure:

138 kPa, 1.4 kgf/cm<sup>2</sup>  
(20 psi)

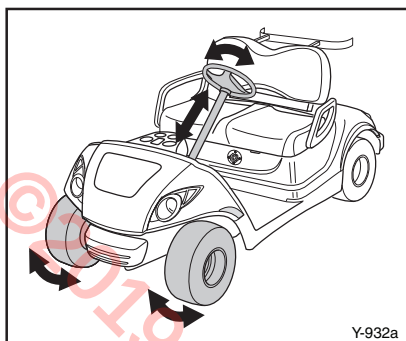


### Tire Wear Limit

Check the tire surface for damage, cracks or embedded objects. When tire tread wears down to 1 mm (0.04 in.), replace the tire.

Ⓐ Wear limit

# PRE-OPERATION CHECKS

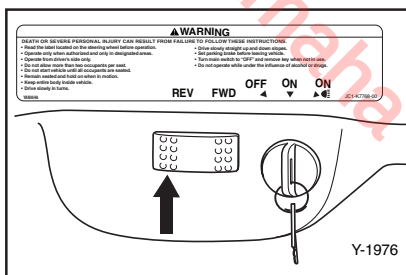


## STEERING SYSTEM

Check the steering system for excessive freeplay 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 freeplay, 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.

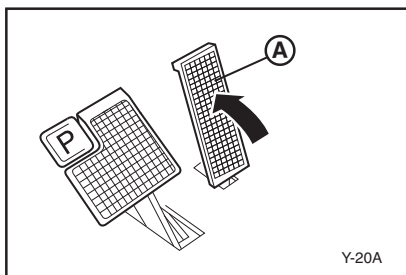
## PEDAL OPERATION

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

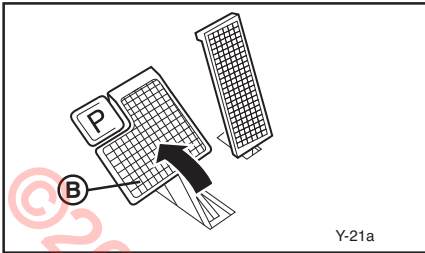
### Accelerator Pedal

1. **WARNING! Make sure the main switch is in the “OFF” position.**
2. Make sure the accelerator pedal operates smoothly.

Ⓐ Accelerator pedal



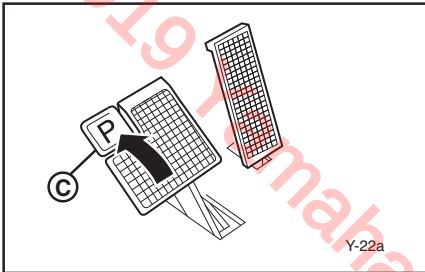
# PRE-OPERATION CHECKS



## Brake Pedal

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

Ⓑ Brake pedal



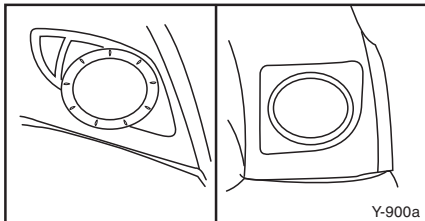
## Parking Brake Pedal

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.

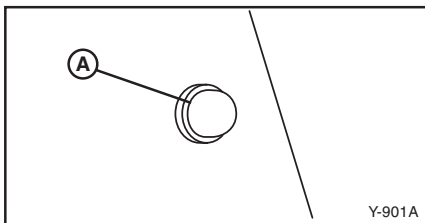


## Headlights/Taillights

Ensure the headlights and taillights are operational.

## ⚠ WARNING

Never operate the PTV at night or during inclement weather without properly working headlights/taillights. Death or serious personal injury can result from failing to comply with the warning labels in this manual.



## Horn Switch

Make sure the horn operates correctly.

Ⓐ Horn Switch

## OPERATION

## BODY AND CHASSIS

Before each use, visually inspect the PTV body and chassis for damaged and/or missing parts.

# STARTING

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

## NOTICE

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

2. Turn the main switch to "ON."

## ⚠️ WARNING

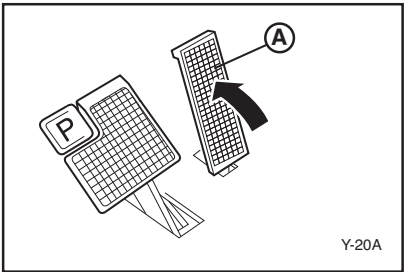
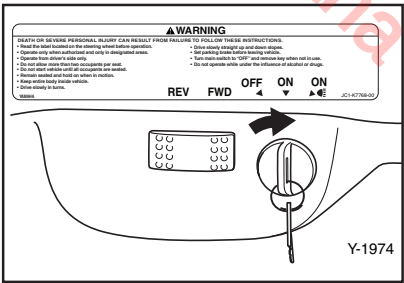
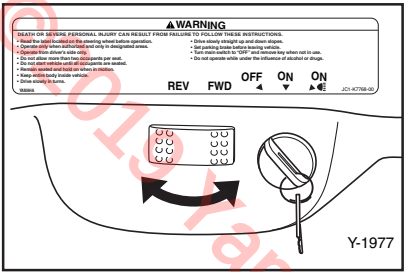
**Do not depress the accelerator pedal when turning on the main switch or the PTV may suddenly start moving. Death or serious personal injury can result from failing to comply with the warning labels in this manual.**

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

Ⓐ Accelerator pedal

### TIP

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

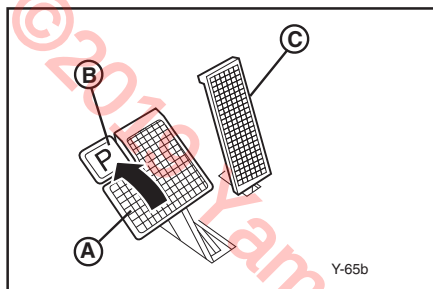


# OPERATION

## STOPPING

To stop the PTV, gradually press down on the brake pedal.

- Ⓐ Brake pedal



### NOTICE

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

When the PTV has come to a stop, apply the parking brake pedal and turn the main switch to “OFF.”

- Ⓑ Parking brake pedal

# MAINTENANCE

## PERIODIC MAINTENANCE CHARTS

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

### ⚠ 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.**

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

|                | Remarks                                                                   | Daily Pre-Operation | 40 rounds<br>20 hours<br>100 miles<br>160 kms<br>(Every Month) | 250 rounds<br>125 hrs<br>600 mls<br>1000 kms<br>(Every 6 months) | 500 rounds<br>250 hrs<br>1200 mls<br>2000 kms<br>(Every Year) | 1000 rounds<br>500 hrs<br>2500 mls<br>4000 kms<br>(Every 2 years) | 2000 rounds<br>1000 hrs<br>5000 mls<br>8000 kms<br>(Every 4 years) | Page            |
|----------------|---------------------------------------------------------------------------|---------------------|----------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------|-----------------|
| PRE-OP         | Charge                                                                    | S                   | S                                                              | S                                                                | S                                                             | S                                                                 | S                                                                  | 4-3/8-5/<br>8-6 |
|                | Clean battery tops, check for tightness of hold-down screws and terminals | S                   | S                                                              | S                                                                | S                                                             | S                                                                 | S                                                                  | 8-3/<br>6-2     |
|                | Check brake pedal freeplay and adjust if necessary                        | CS                  | CA                                                             | CA                                                               | CA                                                            | CA                                                                | CA                                                                 | 6-4/<br>8-11    |
|                | Check steering operation                                                  | CS                  | CS                                                             | CS                                                               | CS                                                            | CS                                                                | CS                                                                 | 6-3             |
|                | Check tire pressure, tread depth, tire surface for damage                 | CS                  | CA                                                             | CA                                                               | CA                                                            | CA                                                                | CA                                                                 | 6-2             |
|                | Check body and chassis for damage                                         | CS                  | CS                                                             | CS                                                               | CS                                                            | CS                                                                | CS                                                                 | 7-1             |
|                | 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                                                                 | 6-3             |
| EVERY MONTH    | Check electrolyte level                                                   |                     | CS                                                             | CS                                                               | CS                                                            | CS                                                                | CS                                                                 | 8-3/8-4         |
|                | 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 | 40 rounds<br>20 hours<br>100 miles<br>160 kms<br>(Every<br>Month) | 250 rounds<br>125 hrs<br>600 mls<br>1000 kms<br>(Every 6<br>months) | 500 rounds<br>250 hrs<br>1200 mls<br>2000 kms<br>(Every<br>Year) | 1000 rounds<br>500 hrs<br>2500 mls<br>4000 kms<br>(Every 2<br>years) | 2000 rounds<br>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 freeplay              |                                 |                                                                   |                                                                     | CS                                                               | CS                                                                   | CS                                                                    | *      |
|                  | Check steering knuckle<br>bushing freeplay / Adjust<br>wheel alignment |                                 |                                                                   |                                                                     | CA                                                               | CA                                                                   | CA                                                                    | *      |
|                  | Check wheel nut tightness, front<br>wheel bearing play                 |                                 |                                                                   |                                                                     | CS                                                               | CS                                                                   | CS                                                                    | 8-10/* |
|                  | Check transaxle oil level and<br>inspect for leakage                   |                                 |                                                                   |                                                                     | CS                                                               | CS                                                                   | CS                                                                    | 8-9    |
|                  | Check pedal stop operation and<br>adjust if necessary                  |                                 |                                                                   |                                                                     | CA                                                               | CA                                                                   | CA                                                                    | *      |
| EVERY 2<br>YEARS | Replace transaxle oil                                                  |                                 |                                                                   |                                                                     |                                                                  | R                                                                    |                                                                       | *      |
| EVERY 4<br>YEARS | Inspect internal wet brake and<br>replace pads 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.**

Six 8-volt deep cycle batteries provide power for your electric PTV and must be properly maintained and recharged for maximum performance and service life.

To maintain your batteries:

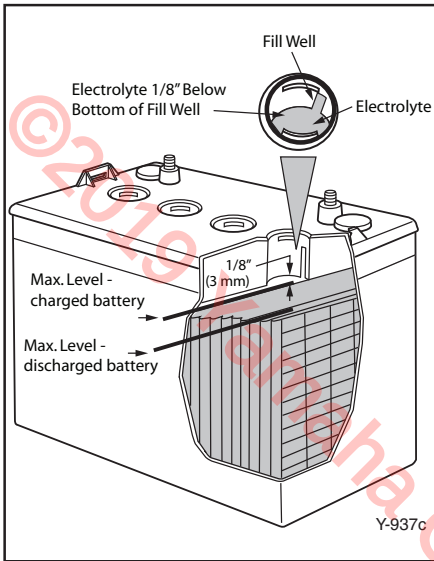
1. Clean the tops of the batteries with a solution of baking soda and water, as necessary, to remove corrosion.

### **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

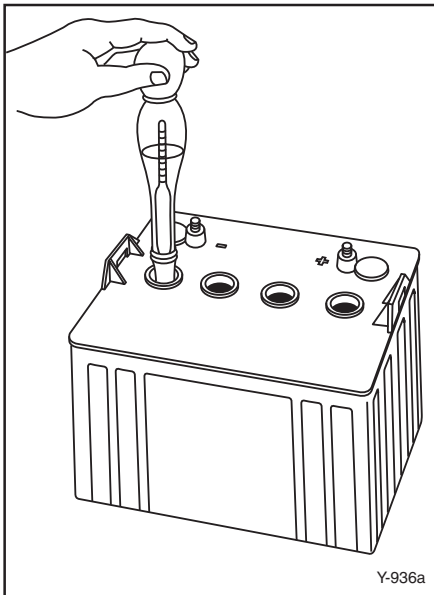


- **Before charging:** only add distilled water if fluid is below the top of the plates, and then add just enough to cover plates.
- **After charging:** open the vent caps and look inside the fill wells. Add distilled water until the electrolyte level is 3 mm (1/8") below the bottom of the fill well. 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.**

- 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                                       |

# MAINTENANCE

## Battery Charging

### ⚠ WARNING

Read and understand the owner's manual provided with your PTV's battery charger before charging batteries. Death or serious personal injury can result from failing to comply with the warning labels in this manual.

### ⚠ WARNING

Explosive hydrogen gas is produced while batteries are being charged. Only charge batteries in well-ventilated areas (a minimum of five air changes per hour is recommended). Death or serious personal injury can result from failing to comply with the warning labels in this manual.

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

### NOTICE

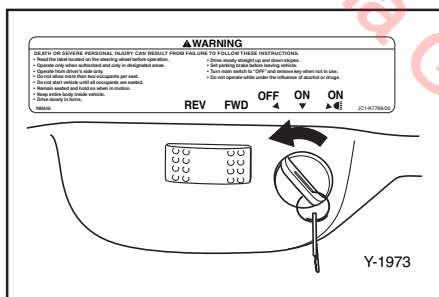
Do not attempt to recharge your PTV's batteries without thoroughly reading and understanding the owner's manual provided with your charger.

1. Turn main switch key to "OFF" position.

### NOTICE

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

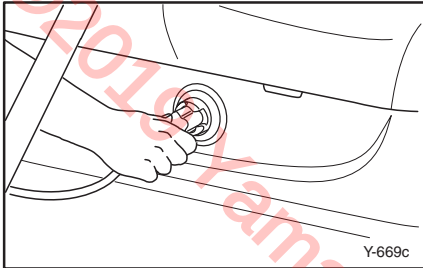
2. Lift up the seat and move the tow switch to the TOW position.



# MAINTENANCE

## NOTICE

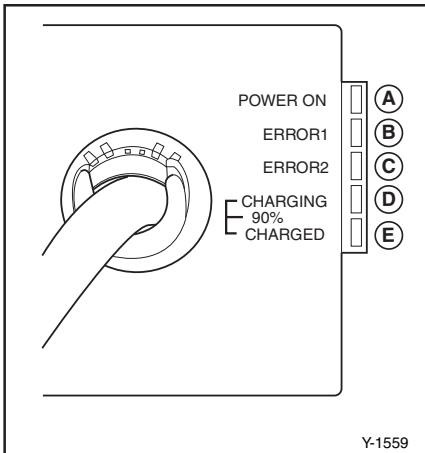
Use only battery chargers that are rated for use with 48-volt Yamaha PTVs. Serious battery damage can result. Thoroughly read and understand the user manual supplied with your 48-volt charger.



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. Death or serious personal injury can result from failing to comply with the warning labels in this manual.



- (A) Power ON Light (Red)
  - (B) Error Light 1 (Red)
  - (C) Error Light 2 (Red)
  - (D) Charging Light (Yellow)
  - (E) Charged Light (Green)
4. When the charger is plugged into the AC power, the Power ON Light illuminates continuously.
  5. If Error 1 or Error 2 light is blinking, there is a problem with the batteries or the charger. Contact your Yamaha Dealer.
  6. During normal charging, the Charging Light blinks or continually illuminates.
  7. The Charged Light illuminates automatically when the batteries reach full charge.

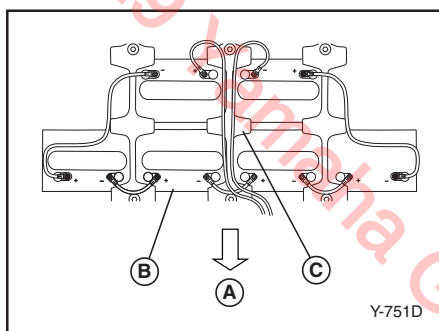
# MAINTENANCE

- After the Charged Light 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. Death or serious personal injury can result from failing to comply with the warning labels in this manual.



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

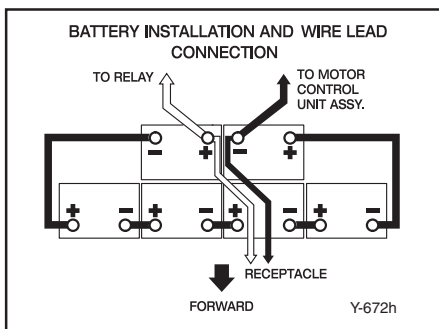
- (A) Forward
- (B) Battery
- (C) Battery hold-down plate

- 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. Death or serious personal injury can result from failing to comply with the warning labels in this manual.



# MAINTENANCE

## NOTICE

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

## Fuse Replacement

### ⚠ WARNING

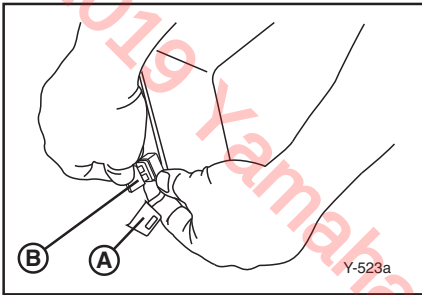
Be sure to use the specified fuse. Using a wrong fuse can cause electrical system damage and create a fire hazard. Death or serious personal injury can result from failing to comply with the warning labels in this manual.

## 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.

- (A) Fuse holder
- (B) Fuse



Fuse Type:  
10 Amp, Blade Style

# MAINTENANCE

## Transaxle Oil

### To check transaxle oil level:

1. Place the PTV on a flat, level surface.
2. Remove seven plastic rivets ① and two bolts ②, and remove the bag holder insert ③.
3. Place an oil pan under the transaxle case.
4. Clean area around servicing plug ④.
5. Using an 8 mm hex wrench, remove transaxle oil servicing plug located on the rear of the transaxle case.
6. Transaxle oil should be at the top of the oil servicing hole or just beginning to run out of hole.

### NOTICE

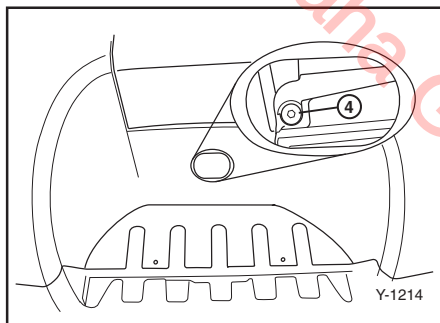
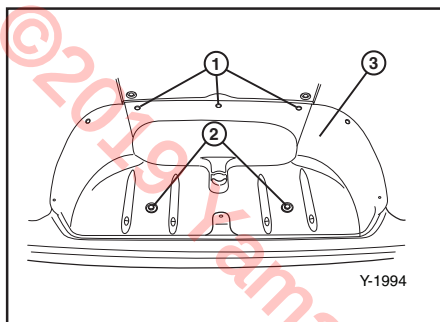
**Do not allow foreign material to enter transaxle. Serious transaxle damage can result.**

7. If needed, add Yamalube Friction Modified Shaft Drive Gear Oil until it is at the top of the plug hole or just beginning to run out of servicing hole.

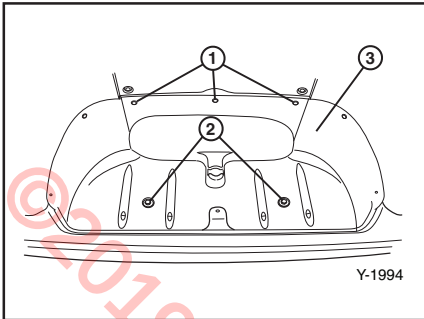
### TIP

The PTV is equipped with an internal wet brake. Use of oil other than Yamalube Friction Modified Shaft Drive Gear Oil will cause brake noise.

8. Install the transaxle servicing plug and tighten to 14-19 Nm, 1.4-1.9 m•kg (120-168 in•lb).



# MAINTENANCE



9. Install the bag holder insert ③ and secure with two bolts ② and seven plastic rivets ①.

## TIP

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

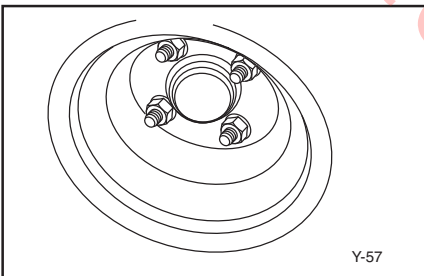
## NOTICE

**Before performing wheel or brake maintenance, verify that the main switch is in the "OFF" position. Serious transaxle damage can result.**

## Wheel Replacement

To remove and install a wheel on your PTV:

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



Wheel nut tightening torque:  
80 Nm, 8.0 m·kg (58 ft·lb)

## Brake Adjustment

The internal wet brake on your PTV requires no adjustment.

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

# MAINTENANCE

## WARNING

Consult your Yamaha dealer before using your PTV if you suspect brake problems. Brake failure could result in a serious accident. Death or serious personal injury can result from failing to comply with the warning labels in this manual.

## Brake Pedal Free Play Adjustment

### NOTICE

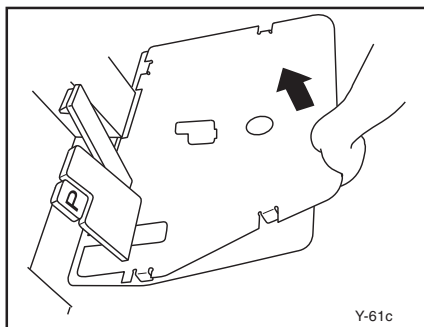
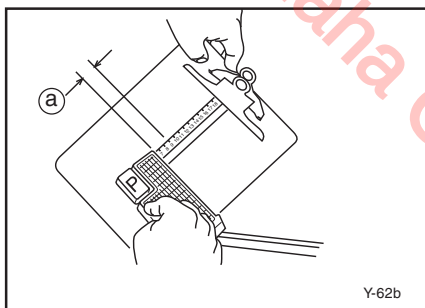
Before adjusting brake pedal free play, pump the brake pedal several times to self-adjust the brakes.

To adjust the brake pedal free play:

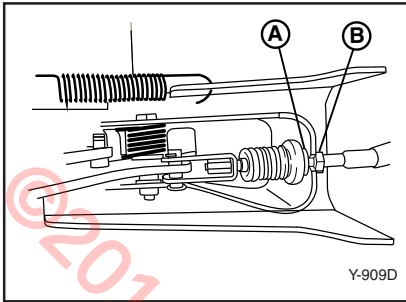
1. Check the brake pedal free play by pressing against the pedal with two fingers (using light force) and measuring the distance the pedal travels before resistance is felt.
2. Remove the floor mat and service lid from the floor of the PTV.

Brake pedal free play (a):  
45-50 mm (1.8-2.0 in.)

8



# MAINTENANCE



3. If the free play distance needs adjusting, loosen the lock nut (A) (under rubber bushing) and turn the adjusting nut (B) in or out until the free play specification is met. Then tighten the lock nut in place.

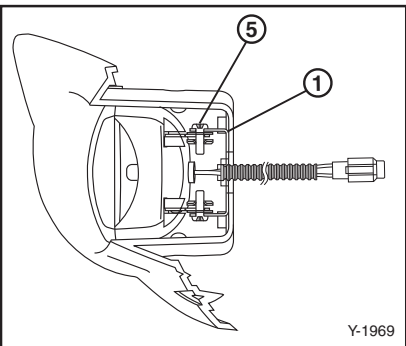
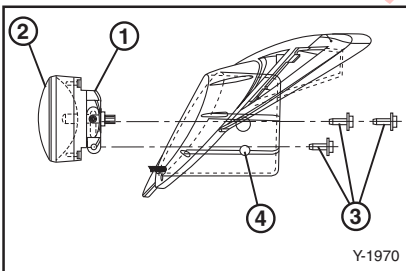
## ⚠ WARNING

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

## 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).

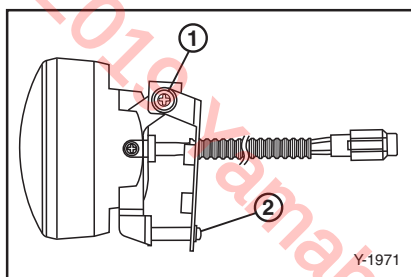


# MAINTENANCE

## 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.

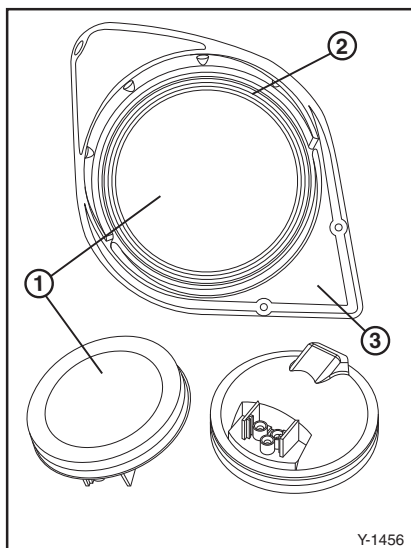
### TIP

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. If a taillight bulb burns out, replace the bulb assembly ① by removing the rubber grommet ② from the bezel assembly ③.
2. Remove the wire connector, replace the bulb, and reinstall by fitting the rubber grommet ② over the bulb assembly ① and bezel ③.



# STORAGE

Perform the following preparations when storing your PTV for extended periods of time.

## TIP

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

## CHASSIS PREPARATION

1. Verify the tire pressure is set to 138 kPa, 1.4 kgf/cm<sup>2</sup> (20 psi).
2. Clean exterior of the PTV and apply a rust inhibitor.
3. Cover the PTV 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                                     | YDRE PTV             |
|-------------------------------------------|----------------------|
| Dimensions:                               |                      |
| Overall length                            | 2395 mm (94.3 in.)   |
| Overall width                             | 1200 mm (47.2 in.)   |
| Overall height (steering height)          | 1190 mm (46.9 in.)   |
| Height of floor                           | 310 mm (12.2 in.)    |
| Wheelbase                                 | 1640 mm (64.6 in.)   |
| Tread:                                    |                      |
| Front                                     | 870 mm (34.3 in.)    |
| Rear                                      | 980 mm (38.6 in.)    |
| Min. ground clearance                     | 110 mm (4.3 in.)     |
| Weight:                                   |                      |
| Dry weight (with suntop, without battery) | 272 kg (600 lb)      |
| Performance:                              |                      |
| Factory speed setting                     | 19 km/h (12 mph)     |
| Maximum speed                             | 24 km/h (15 mph)     |
| Optional maximum speed                    | 31 km/h (19 mph)     |
| Minimum turning radius                    | 2.9 m (114 in.)      |
| Seating capacity                          | 2 occupants per seat |

## PAINT CODES

| Name                | Ditzler Number |
|---------------------|----------------|
| Glacier             | 918519         |
| Emerald             | 48748          |
| Garnet              | 701739         |
| Tanzanite           | 917834         |
| Onyx Metallic       | 918520         |
| Anthracite Metallic | 918522         |
| Sandstone Metallic  | 918523         |

## TRANSMISSION

| Items                        | YDRE PTV                                                                                                                                                                                                       |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Differential/reduction gear: |                                                                                                                                                                                                                |
| Differential type            | Bevel gear                                                                                                                                                                                                     |
| Lubricant/capacity           | Yamalube Friction Modified Shaft Drive Gear Oil / 1350 mL (1.45 quarts total). Alternative lubricant is mixture of 1280 mL (1.35 quarts) 80W90 Gear Oil and 70 mL (0.10 quarts) API G15 Limited Slip Additive. |

# SPECIFICATIONS

## BATTERIES

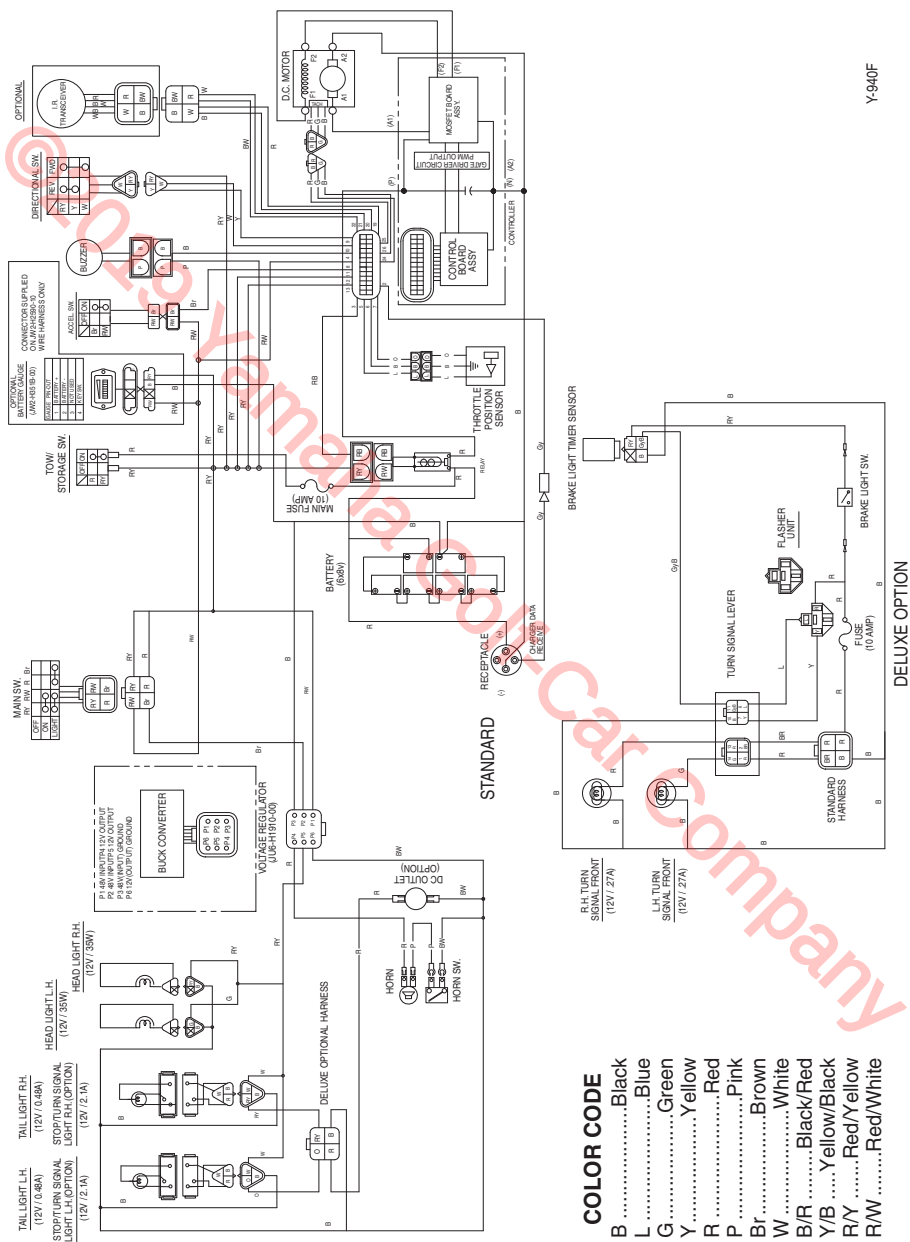
| Items    | YDRE PTV                                                      |
|----------|---------------------------------------------------------------|
| Battery: | Trojan - Golf Car Type T-875 (6x8volt)<br>RC: minimum 117 min |

## CHASSIS

| Items                                                                                                         | YDRE PTV                                                                                                   |
|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 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<br>Type of brake<br>Brake pedal freeplay linkage adjustment<br>(Brake cable end play) | Mechanical<br>Internal Wet<br><br>45-50 mm (1.77-1.96 in.)<br>0.1-0.5 mm (0.004-0.02 in.)                  |
| Parking brake:<br>Type                                                                                        | Foot type; parking brake with automatic release.                                                           |
| Release timing<br>(With pedal segment in second notch)<br>(Bolt heads round parallel to arm)                  | 0.0 ~ 0.3 mm (0.000 ~ 0.001 in.)                                                                           |
| Wheel:<br>Tire size:<br>Front<br>Rear<br>Rim size:<br>Tire pressure:                                          | <br>18 x 8.50-8.00/4 PR<br>18 x 8.50-8.00/4 PR<br>7.00-1-8.00<br>138 kPa, 1.4 kgf/cm <sup>2</sup> (20 psi) |
| Lights:<br>Bulb voltage, wattage x quantity:<br>Headlight<br>Taillight                                        | <br>12 V, 30 W / 30 W x 2<br>Sealed beam x 2                                                               |

# WIRING

# YDRE PTV WIRING DIAGRAM



Y-940F

## NOTES

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## NOTES

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