YAMAHA

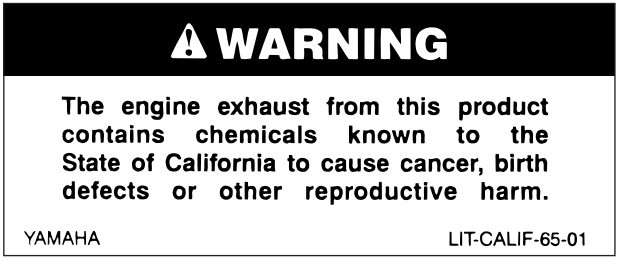
# 2015 WaveRunner
# VX
# VX Deluxe
# VX Cruiser

## OWNER'S/OPERATOR'S MANUAL

**U.S.A. Edition**

YAMAHA MOTOR CORPORATION, U.S.A.
**LIT-18626-10-56**
**F2X-F8199-10**

⚠ **Read this manual carefully before operating this watercraft.**




**Read this manual carefully before operating this watercraft. This manual should stay with the WaveRunner if it is sold.**

EJU30183

## To the owner/operator

Thank you for choosing a Yamaha watercraft. This owner's/operator's manual contains information you will need for proper operation, maintenance, and care. 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 watercraft, please consult a Yamaha dealer.

In this manual, information of particular importance is distinguished in the following ways:

⚠ 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.

EWJ00072

**⚠ WARNING**

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

ECJ00092

***NOTICE***

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

**TIP:**

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

EJU40401

Because Yamaha has a policy of continuing product improvement, this product may not be exactly as described in this owner's/operator's manual. Specifications are subject to change without notice.

This manual should be considered a permanent part of this watercraft and should remain with it even if the watercraft is subsequently sold.

EJU30223

**WaveRunner VX / VX Deluxe / VX Cruiser**
**OWNER'S/OPERATOR'S MANUAL**
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**2nd Edition, November 2015**
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**Printed in U.S.A.**
**P/N LIT-18626-10-56**

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# General and important labels

EJU30263

## Identification numbers

Record the Primary Identification (PRI-ID) number, Hull Identification Number (HIN), and engine serial number in the spaces provided for assistance when ordering genuine parts from a Yamaha dealer. Also record and keep these ID numbers in a separate place in case your watercraft is stolen.

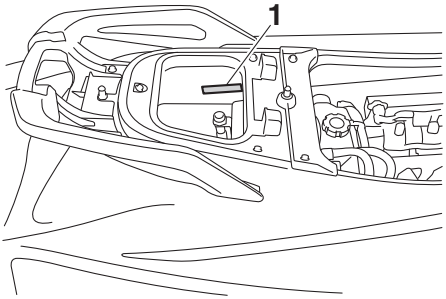
EJU42521

### Primary Identification (PRI-ID) number

The PRI-ID number is stamped on a plate attached inside the engine compartment. (See page 50 for seat removal and installation procedures and page 55 for information on the removable watertight storage compartment.)

**MODEL:**

VX1100C-P (VX)
VX1100B-P (VX Deluxe)
VX1100A-P (VX Cruiser)




**1** Primary Identification (PRI-ID) number location

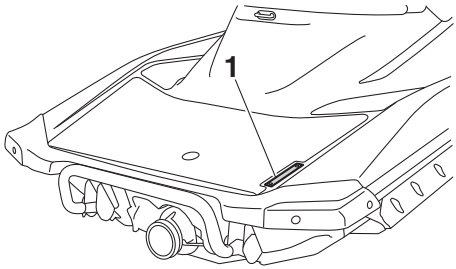
MODEL
PRI-I.D.
F2X
YAMAHA MOTOR CO., LTD.
ASSEMBLED IN U.S.A. FROM AMERICAN AND JAPANESE COMPONENTS.
ASSEMBLÉ AUX ÉTATS-UNIS DE PIÈCES AMÉRICAINES ET JAPONAISES.

F2X-

EJU30301

### Hull Identification Number (HIN)

The HIN is stamped on a plate attached to the aft deck.



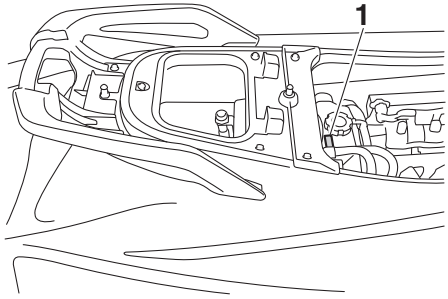

**1** Hull Identification Number (HIN) location

US-YAM

EJU30312

### Engine serial number

The engine serial number is stamped on a plate attached to the engine unit. (See page 50 for seat removal and installation procedures.)




**1** Engine serial number location

YAMAHA
YAMAHA MOTOR CO., LTD.
MADE IN JAPAN
PAYS D'ORIGINE JAPON

EJU30353

## Emission control information

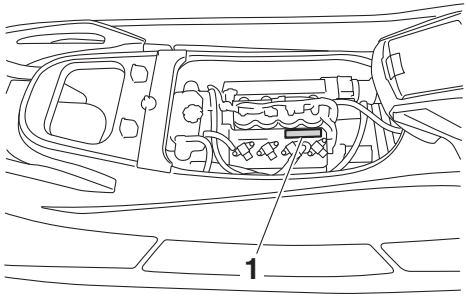
This engine conforms to U.S. Environmental Protection Agency (EPA) and/or California Air Resources Board (CARB) regulations for marine SI engines applicable at the time of manufacture.

This engine is certified to operate on regular unleaded gasoline.

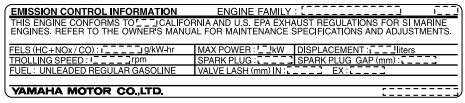
EJU30403

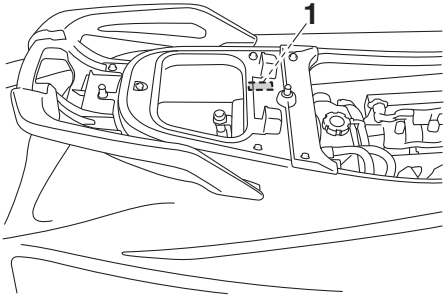
### Approval label of emission control certificate

This label is attached to the top of the cylinder head and to the inside of the engine compartment. (See page 50 for seat removal and installation procedures.)

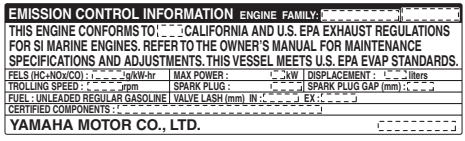



**1** Emission control information label location



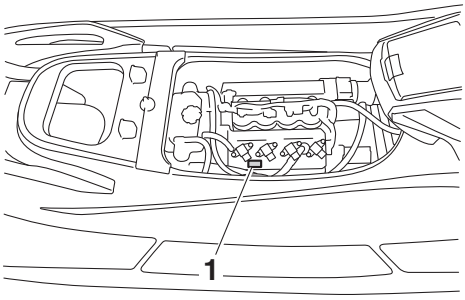




**1** Emission control information label location

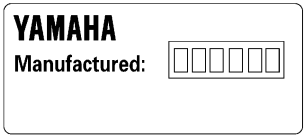


# General and important labels

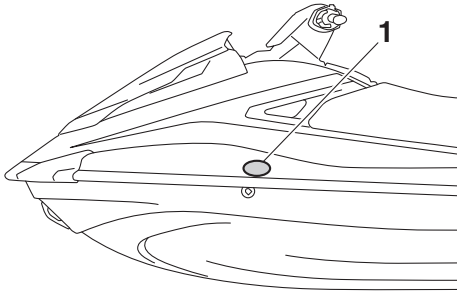
EJU30432
## Manufactured date label
This label is attached to the top of the cylinder head. (See page 50 for seat removal and installation procedures.)




**1** Manufactured date label location




EJU30441
## Star labels
This watercraft is labeled with a California Air Resources Board (CARB) star label. See below for a description of your particular label.




**1** Star label location

**One Star - Low Emission**
The one-star label identifies engines that meet the Air Resources Board's Personal Watercraft and Outboard marine engine 2001 exhaust emission standards. Engines meeting these standards have 75% lower emissions than conventional carbureted two-stroke engines. These engines are equivalent to the U.S. EPA's 2006 standards for marine engines.




**Two Stars - Very Low Emission**
The two-star label identifies engines that meet the Air Resources Board's Personal Watercraft and Outboard marine engine 2004 exhaust emission standards. Engines meeting these standards have 20% lower emissions than One Star-Low Emission engines.




**Three Stars - Ultra Low Emission**
The three-star label identifies engines that meet the Air Resources Board's Personal Watercraft and Outboard marine engine 2008

exhaust emission standards or the Sterndrive and Inboard marine engine 2003-2008 exhaust emission standards. Engines meeting these standards have 65% lower emissions than One Star-Low Emission engines.




**Four Stars - Super Ultra Low Emission**
The four-star label identifies engines that meet the Air Resources Board's Sterndrive and Inboard marine engine 2009 exhaust emission standards. Personal Watercraft and Outboard marine engines may also comply with these standards. Engines meeting these standards have 90% lower emissions than One Star-Low Emission engines.

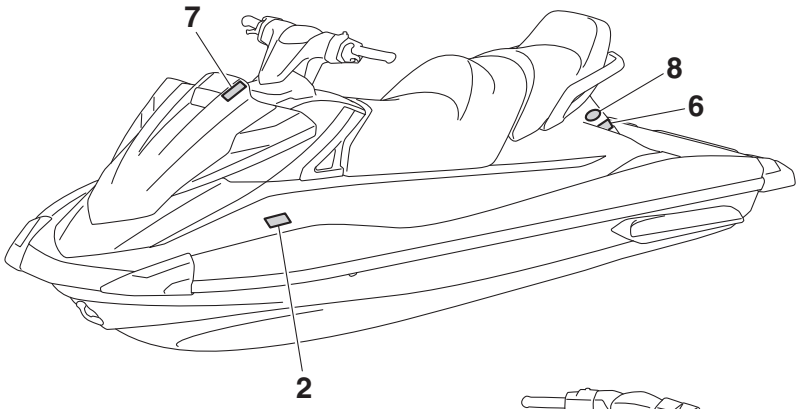


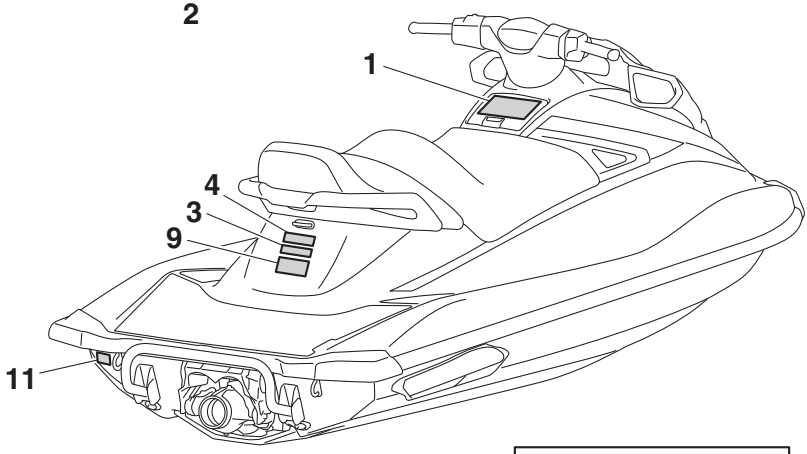
# General and important labels

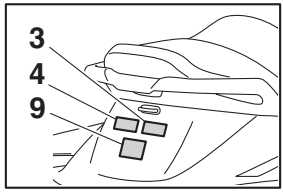
EJU30453

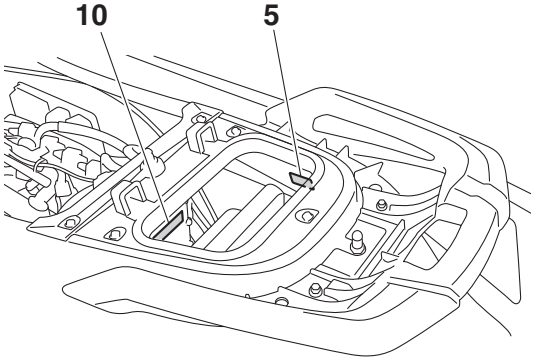
## Important labels

Read the following labels before using this watercraft. If have any questions, consult a Yamaha dealer.



EJU35914

## Warning labels

If any of these labels are damaged or missing, contact a Yamaha dealer for replacements.

**1**

**⚠ WARNING** **⚠ WARNING**

To reduce the risk of SEVERE INJURY or DEATH:




WEAR A PERSONAL FLOTATION DEVICE (PFD).
All riders must wear a Coast Guard approved PFD that is suitable for personal watercraft (PWC) use.

WEAR PROTECTIVE CLOTHING. Severe internal injuries can occur if water is forced into body cavities as a result of falling into water or being near jet thrust nozzle. Normal swimwear does not adequately protect against forceful water entry into rectum or vagina. All riders must wear a wet suit bottom or clothing that provides equivalent protection (See Owner's Manual).

Footwear, gloves, and goggles/glasses are recommended.

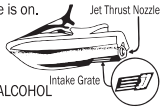
KNOW BOATING LAWS. Yamaha Motor Co., Ltd. recommends a minimum operator age of 16 years old. Know the operator age and training requirements for your state. A boating safety course is recommended and may be required in your state.

ATTACH ENGINE SHUT-OFF CORD (LANYARD) to wrist and keep it free from handlebars so that engine stops if operator falls off. After riding, remove cord from PWC to avoid unauthorized use by children or others.

RIDE WITHIN YOUR LIMITS AND AVOID AGGRESSIVE MANEUVERS to reduce the risk of loss of control, ejection, and collision.
This is a high performance boat - not a toy.
Sharp turns or jumping wakes or waves can increase the risk of back/spinal injury (paralysis), facial injuries, and broken legs, ankles, and other bones.
Do not jump wakes or waves.

DO NOT APPLY THROTTLE WHEN ANYONE IS AT REAR OF PWC- turn engine off or keep engine at idle. Water and/or debris exiting jet thrust nozzle can cause severe injury.

KEEP AWAY FROM INTAKE GRATE while engine is on. Items such as long hair, loose clothing, or PFD straps can become entangled in moving parts resulting in severe injury or drowning.




NEVER RIDE AFTER CONSUMING DRUGS OR ALCOHOL

Collisions result in more INJURIES AND DEATHS than any other type of accident for personal watercraft (PWC).

TO AVOID COLLISIONS:



SCAN CONSTANTLY for people, objects, and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.
OPERATE DEFENSIVELY at safe speeds and keep a safe distance away from people, objects, and other watercraft.
- Do not follow directly behind PWCs or other boats.
- Do not go near others to spray or splash them with water.
- Avoid sharp turns or other maneuvers that make it hard for others to avoid you or understand where you are going.
- Avoid areas with submerged objects or shallow water.

TAKE EARLY ACTION to avoid collisions. Remember, PWCs and other boats do not have brakes.

DO NOT RELEASE THROTTLE WHEN TRYING TO STEER away from objects - you need throttle to steer. Always check throttle and steering controls for proper operation before starting PWC.
Follow navigation rules and state/province and local laws that apply to PWCs. See Owner's Manual for more information.
READ AND FOLLOW OWNER'S MANUAL

YAMAHA

F2X-U41B1-00

**2**

**⚠WARNING**

Gasoline is highly flammable and explosive. A fire or explosion could cause severe injury or death. Shut engine off. Refuel in well ventilated area away from flames or sparks. Do not smoke. Avoid spilling gasoline. Wipe up spilled gasoline immediately. Remove all seats to ventilate fuel vapors from engine compartment before starting engine. Do not start engine if there is a fuel leak or a loose electrical connection.

**REGULAR UNLEADED GASOLINE ONLY**

YAMAHA

F1B-U415B-02
F1S-U415B-01

# General and important labels

**3**

**⚠ WARNING**

- Severe internal injuries can occur if water is forced into body cavities as a result of being near jet thrust nozzle.
- Wear a wetsuit bottom or clothing that provides equivalent protection.
- Do not board PWC if operator is applying throttle.

(F1B-U41E1-21)
(F1S-U41E1-01)
(F2S-U41E1-00)

**4**

**⚠ WARNING**

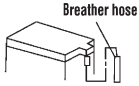
Do not use cleat or grips to lift PWC. PWC could fall, which could result in severe injury.

(F1B-U41E1-21)
(F1S-U41E1-01)
(F2S-U41E1-00)

**5**

**⚠ WARNING**

Be sure to connect breather hose to battery. Fire or explosion could result if not connected properly.




YAMAHA

F0V-U41DB-02

EJU35926
## Other labels

**6**

RATED PERSON CAPACITY:3
MAXIMUM LOAD:240 kg (530 lb)
YAMAHA

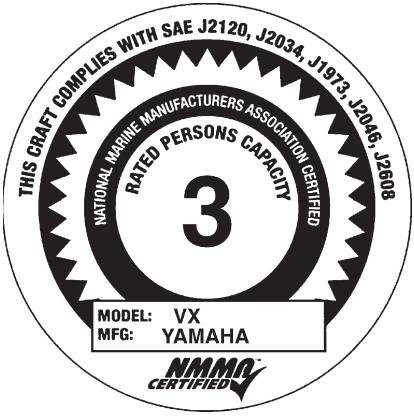
F0P-U41G1-01
F1S-U41G1-01

**7**

**FIRE EXTINGUISHER CONTAINER**

F0V-U41F5-01
F1B-U41F5-01

**8**




**9**

**YAMAHA Motor Corporation, U.S.A.**
**P.O. Box 6555 Cypress, CA 90630**
THIS BOAT IS NOT REQUIRED TO COMPLY WITH THE FOLLOWING U.S. COAST GUARD SAFETY STANDARDS IN EFFECT ON THE DATE OF CERTIFICATION:
- Display of Capacity Information
- Safe Loading
- Flotation
- Electrical System (183.425 Conductors)
- Fuel System
- Powered Ventilation

AS AUTHORIZED BY U.S. COAST GUARD GRANT OF EXEMPTION. (CGB86-039)

(F1B-U41E1-21)
(F1S-U41E1-01)
(F2S-U41E1-00)

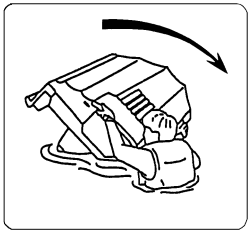
**10**

All applicable electrical system components installed as original equipment meet appropriate U.S.C.G. requirements for ignition protection.(Ref.33 CFR 183.410 and 183.440)
YAMAHA
60E-83627-00

# General and important labels

The following label indicates the correct direction to upright a capsized watercraft.

**11**



F1G-U418F-00

EJU30672

**The safe use and operation of this watercraft is dependent upon the use of proper riding techniques, as well as upon the common sense, good judgment, and expertise of the operator. Every operator should know the following requirements before riding the watercraft.**

- Before operating the watercraft, read this owner's/operator's manual, the Riding Practice Guide, the Riding Instruction card, and all labels on the watercraft. Also, watch the Basic Orientation Video provided with your watercraft. These materials should give you an understanding of the watercraft and its operation.
- Never allow anyone to operate this watercraft until they too have read this owner's/operator's manual, the Riding Practice Guide, the Riding Instruction card, and all labels, and, if possible, watched the Basic Orientation Video.
  Showing them the video may help reinforce the information contained in these materials.

EJU30732

## Limitations on who may operate the watercraft

- Yamaha recommends a minimum operator age of 16 years old.
  Adults must supervise use by minors.
  Know the operator age and training requirements for your state. A boating safety course is recommended and may be required in your state. You can find local rules by contacting the United States Coast Guard (USCG), the National Association of State Boating Law Administrators, or your local Power Squadron.
- This watercraft is designed to carry the operator and up to 2 passengers. Never exceed the maximum load limit or allow more than 3 persons (or 2 persons if a wakeboarder or water-skier is being pulled) to ride the watercraft at any time.



Maximum load:
240 kg (530 lb)
Load is the total weight of cargo, operator, and passengers.

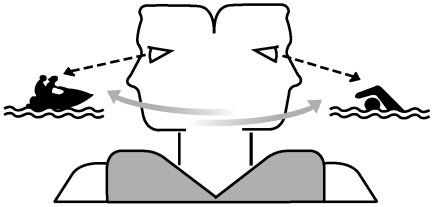
- Do not operate the watercraft with any passengers on board until you have considerable practice and experience riding alone. Operating the watercraft with passengers requires more skill. Take the time to become accustomed to the handling charac-

teristics of the watercraft before trying any difficult maneuvers.

EJU43321

## Cruising limitations

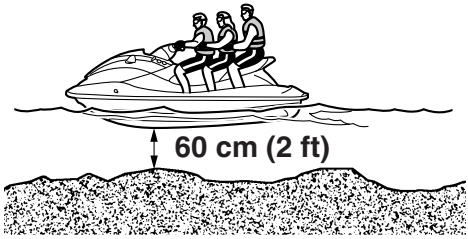
- Scan constantly for people, objects, and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.



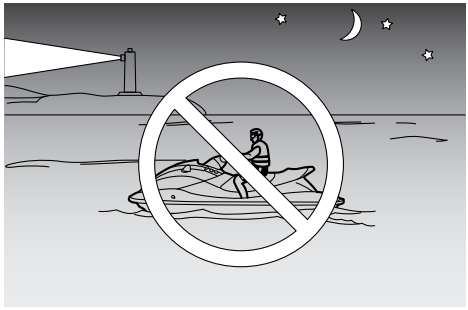
- Operate defensively at safe speeds and keep a safe distance away from people, objects, and other watercraft.
- Do not follow directly behind watercraft or other boats.
- Do not go near others to spray or splash them with water.
- Take early action to avoid collisions. Remember, watercraft and other boats do not have brakes. In addition, the Reverse with Intuitive Deceleration Electronics (RiDE) system is not a braking device for avoiding dangerous situations. The RiDE system is an electronic system for controlling the engine speed and reverse gate, which is located near the jet thrust nozzle. The RiDE lever located at the left handlebar grip can be used to change the direction of the jet thrust so that the watercraft moves in reverse or is in neutral. The RiDE system assists the operator when slowing down and during slow-speed maneuvering, such as launching, beaching, and docking.
- Avoid sharp turns, slowing down rapidly by squeezing the RiDE lever forcefully, and other maneuvers that make it hard for oth-

ers to avoid you or understand where you are going.

- Avoid areas with submerged objects or shallow water.
- Do not release the throttle lever when trying to steer away from objects—you need throttle to steer. Always check throttle and steering controls before starting the watercraft.
- Ride within your limits and avoid aggressive maneuvers to reduce the risk of loss of control, ejection, and collision.
- This is a high performance boat—not a toy. Sharp turns or jumping wakes or waves can increase the risk of back/spinal injury (paralysis), facial injuries, and broken legs, ankles, and other bones. Do not jump wakes or waves.
- Do not operate the watercraft in rough water, bad weather, or when visibility is poor; this may lead to an accident causing injury or death. Be alert to the possibility of adverse weather. Take note of weather forecasts and the prevailing weather conditions before setting out on your watercraft.
- As with any water sport, you should not operate your watercraft without someone else nearby. If you operate further than swimming distance from shore, you should be accompanied by another boat or watercraft, but make sure you stay a safe distance away. It's good, common sense.
- Never operate in water that is less than 60 cm (2 ft) deep from the bottom of the watercraft, otherwise you increase your chance of hitting a submerged object, which could result in injury.




- This watercraft is not equipped with lighting required for night operation. Do not operate the watercraft after sunset or before dawn, otherwise you increase the risk of colliding with another boat, which could result in severe injury or death.

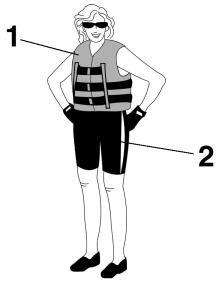


- Follow navigation rules, and state/provincial and local laws that apply to watercraft.

EJU43120

## Operation requirements

- All riders must wear a U.S. Coast Guard (USCG) approved personal flotation device (PFD) that is suitable for personal watercraft use.
- Wear protective clothing. Severe internal injuries can occur if water is forced into body cavities as a result of falling into the water or being near the jet thrust nozzle.
  Normal swimwear does not adequately protect against forceful water entry into the rectum or vagina. All riders must wear a wetsuit bottom or clothing that provides equivalent protection. Such clothing includes thick, tightly woven, sturdy and snug-fitting apparel such as denim, but does not include spandex or similar fabrics, like those used in bicycle shorts.



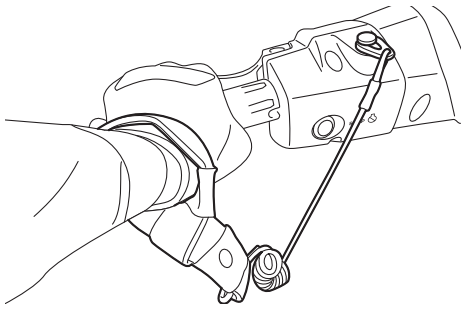

**1** USCG approved PFD
**2** Wetsuit bottom

- Eye protection is recommended to keep wind, water, and glare from the sun out of your eyes while you operate your watercraft. Restraining straps for eyewear are made which are designed to float should your eyewear fall in the water.
  Footwear and gloves are recommended.
- Helmets meeting Snell or DOT standards are required for IJSBA-sanctioned races. You must decide whether to wear a helmet while you ride for recreation. You should know that a helmet could help protect you in certain kinds of accidents and that it could injure you in others.
  A helmet is designed to provide some head protection. Although helmets cannot protect against all foreseeable impacts, a helmet might reduce your injuries in a collision with a boat or other obstacle.
  A helmet may have potential safety hazards, as well. Falling into the water could risk the chance of the helmet catching water, commonly known as “bucketing”, and the resulting strain on your neck could cause choking, severe and permanent neck injuries, or death. A helmet could also increase the risk of an accident if it reduces your vision or hearing, or if it distracts you or increases your fatigue.
  How should you decide if a helmet’s potential safety benefits outweigh its potential risks for you? Consider your particular riding conditions. Consider factors such as your riding environment and your riding style and ability. Also consider the likelihood of traffic congestion, and the water surface conditions.
  If you decide to wear a helmet based upon your riding circumstances, choose one carefully. Look for a helmet designed for personal watercraft use, if possible. Consider a helmet meeting Snell or DOT standards. If you will be engaging in closed-course competition, follow the helmet requirements of the sanctioning organization.
- Never operate the watercraft after consuming alcohol or taking other drugs.
- For reasons of safety and proper care of the watercraft, always perform the pre-operation checks listed on page 64 before operating the watercraft.

- The operator should grip the handlebars firmly with both hands and the passengers should hold on firmly, either to the person in front of them or to the handgrip provided.
- The operator and passengers should always keep their feet on the floor of the footwell when the watercraft is in motion. Lifting your feet increases the chances of losing your balance, or hitting objects outside the watercraft with your feet. Do not give a ride to children if their feet cannot reach the floor of the footwell.

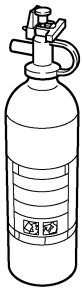


- Never allow a passenger to ride in front of the operator.
- Always consult your doctor on whether it is safe for you to ride this watercraft if you are pregnant or in poor health.
- Do not attempt to modify this watercraft. Modifications to your watercraft may reduce safety and reliability, and render the watercraft unsafe or illegal for use.
- Attach the engine shut-off cord (lanyard) to your left wrist and keep it free from the handlebars so that the engine stops if you, the operator, fall off. After riding, remove the engine shut-off cord (lanyard) from the watercraft to avoid accidental starting or unauthorized use by children or others.



- Scan carefully for swimmers and stay away from swimming areas. Swimmers are hard to see and you could accidentally hit someone in the water.
- Avoid being hit by another boat. You should always take the responsibility to watch for traffic; other boaters may not be watching for you. If they do not see you, or if you maneuver more quickly than other boaters expect, you risk a collision.
- Maintain a safe distance from other boats and watercraft, and also watch for ski ropes or fishing lines. Obey the “Rules of the Road” and be sure to check behind you before making a turn or slowing down. (See “Rules of the Road” on page 19.)
- According to the USCG, boats under 6.1 m (20 ft) in length like your watercraft must carry a fire extinguisher of a B-1 classification, with a capacity of two pounds or more when navigating in waters under USCG jurisdiction. In addition, most state and local

boating laws also require that the fire extinguisher be approved by the USCG.



EJU30831

## Recommended equipment

The following items should be carried on board your watercraft:

- Sound-signaling device
  You should carry a whistle or other sound-signaling device that can be used to signal other boats. See “Rules of the Road” for more information.
- Visual distress signals
  It is recommended that a U.S. Coast Guard approved pyrotechnic device be stored in a waterproof container on your watercraft. A mirror can also be used as an emergency signal. Contact a Yamaha dealer or the U.S. Coast Guard for more information.
- Watch
  A watch is helpful so you will know how long you have been operating the watercraft.
- Towline
  A towline can be used to tow a disabled watercraft in an emergency.

EJU43620

## Hazard information

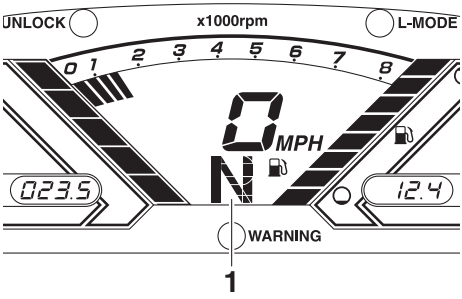
- Never start the engine or let it run for any length of time in an enclosed area. Exhaust fumes contain carbon monoxide, a colorless, odorless gas that may cause loss of consciousness and death within a short time. Always operate the watercraft in an open area.
- Do not touch the hot oil tank, muffler, or engine during or immediately after engine operation; they can cause serious burns.
- Do not place magnets or objects with a strong magnetic force near the throttle lever or RiDE lever. The electronic throttle mechanism of the levers can be adversely affected, which could cause loss of control. In addition, do not place objects susceptible to magnetic forces (i.e., credit cards, watches, etc.) close to the throttle lever or RiDE lever.

EJU42414

## Watercraft characteristics

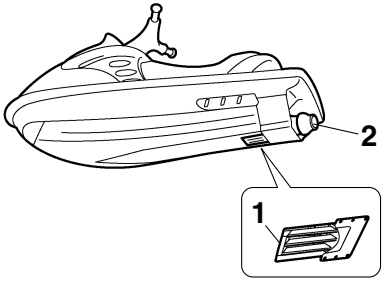
- Jet thrust turns the watercraft. Releasing the throttle lever completely produces only minimum thrust. If you are traveling at speeds above trolling, you will have rapidly decreasing ability to steer without throttle.
  This model is equipped with the Yamaha Engine Management System (YEMS) that includes an off-throttle steering (OTS) system. It will activate at planing speeds should you attempt to steer the watercraft after releasing the throttle lever. The OTS system assists in turning by continuing to supply some thrust while the watercraft is decelerating, but you can turn more sharply if you apply throttle while turning the handlebars.
  The OTS system does not function below planing speeds or when the engine is off. Once the engine slows down, the watercraft will no longer turn in response to handlebar input until you apply throttle again or you reach trolling speed.
  Practice turning in an open area without obstacles until you have a good feel for this maneuver.
- This watercraft is water-jet propelled. The jet pump is directly connected to the engine. This means that jet thrust will produce some movement whenever the engine is running and the “F” (forward) or “R” (reverse) shift indicator is displayed in the multifunction display. When the “N” (neutral) shift indicator is displayed, the forward and reverse thrust are balanced to help keep the watercraft from moving in either

direction, although some movement may occur.



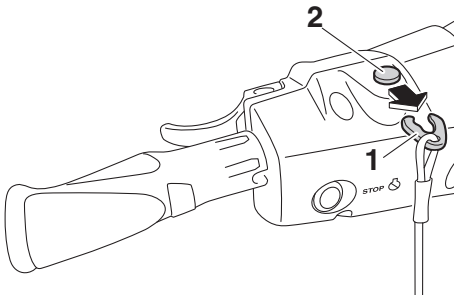

**1** "N" (Neutral position)

- To avoid rear-end collisions while operating the watercraft, check behind you before using the RiDE lever to slow down or stop the watercraft. Make sure that there are no obstacles or people behind you before shifting into reverse.
- Keep away from the intake grate while the engine is on. Items such as long hair, loose clothing, or PFD straps can become entangled in moving parts, resulting in severe injury or drowning.
- Never insert any object into the jet thrust nozzle while the engine is running. Severe injury or death could result from coming in contact with the rotating parts of the jet pump.




**1** Intake grate
**2** Jet thrust nozzle

- Stop the engine and remove the clip from the engine shut-off switch before removing any debris or weeds, which may have collected around the jet intake.



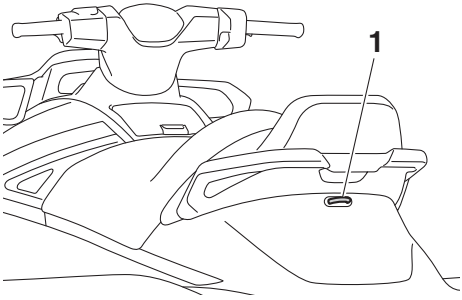

**1** Clip
**2** Engine shut-off switch

EJU30946

## Wakeboarding and water-skiing

You can use the watercraft for wakeboarding or water-skiing if it has the seating capacity to carry the operator, a rearward-facing spotter, and the wakeboarder or water-skier when he or she is not being pulled.

The watercraft must also have a cleat designed to pull a ski rope; do not attach the rope to any other location.




**1** Cleat

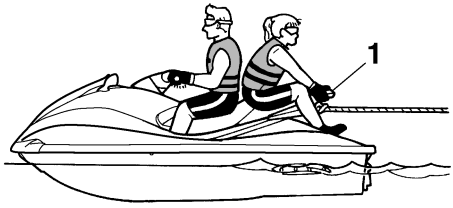
It is the watercraft operator's responsibility to be alert to the safety of the wakeboarder or water-skier and others. Know and follow all state and local regulations in effect for the waters in which you will be operating.

The operator should be comfortable carrying passengers before attempting to pull a wakeboarder or water-skier.

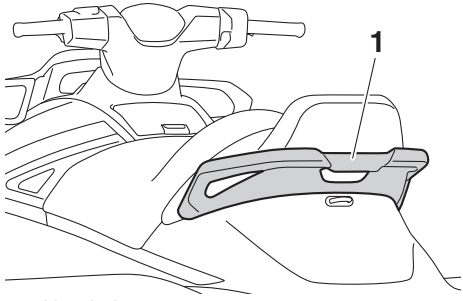
The following are some important considerations for minimizing risks while pulling a wakeboarder or water-skier.

- The wakeboarder or water-skier should wear an approved PFD, preferably a brightly colored one so boat operators can see the person being pulled.
- The wakeboarder or water-skier should wear protective clothing. Severe internal injuries can occur if water is forced into body cavities as a result of falling into the water. Normal swimwear does not adequately protect against forceful water entry into the rectum or vagina. The person being pulled should wear a wetsuit bottom or clothing that provides equivalent protection.
- A second person should be on board as a spotter to watch the wakeboarder or water-skier; in most states it is required by law. Let the person being pulled direct the operator's control of speed and direction with hand signals.

  The spotter should sit astride the rear of the seat and hold onto the handgrip with both feet firmly on the floor of the footwell for proper balance while facing to the rear to watch the wakeboarder's or water-skier's hand signals and condition.




**1** Handgrip




**1** Handgrip

- Your control while pulling a wakeboarder or water-skier is affected by the wakeboard-

er's or water-skier's ability, as well as water and weather conditions.

- When preparing to pull a wakeboarder or water-skier, operate the watercraft at the slowest possible speed until the watercraft is well away from the person being pulled and slack in the ski rope is taken up. Make sure that the rope is not looped around anything.
  After checking that the wakeboarder or water-skier is ready and that there is no traffic or other obstacles, apply enough throttle to raise the person.
- Make smooth, wide turns. The watercraft is capable of very sharp turns, which could exceed the abilities of the wakeboarder or water-skier. Keep the person being towed at least 50 m (164 ft), about twice the distance of a standard ski rope, away from any potential hazard.
- The operators of boats and other watercraft may not be aware that you are pulling a wakeboarder or water-skier. Together with the spotter, pay attention to others around you and cruise at safe speeds.
- Be alert to the hazard of the ski rope handle snapping back at the watercraft when the wakeboarder or water-skier falls or is unable to get up.
- Towing heavy or bulky objects other than wakeboarders or water-skiers, such as another boat or watercraft, can cause loss of steering control and create a hazardous condition. If you must tow another boat in an emergency situation, operate slowly and cautiously.

EJU30962

## Rules of the Road

**Your Yamaha watercraft is legally considered a powerboat. Operation of the watercraft must be in accordance with the rules and regulations governing the waterway on which it is used.**

Just as there are rules that apply when you are driving on streets and highways, there are waterway rules that apply when you are operating your watercraft. These rules are used internationally, and are also enforced by the United States Coast Guard and local agencies. You should be aware of these rules, and follow them whenever you encounter another vessel on the water.

Several sets of rules prevail according to geographic location, but are all basically the same as the International Rules of the Road. The rules presented here in this owner's/operator's manual are condensed, and have been provided for your convenience only. Consult your local U.S. Coast Guard Auxiliary or Department of Motor Vehicles for a complete set of rules governing the waters in which you will be operating your watercraft.

**Steering and sailing rules**

Whenever two vessels on the water meet one another, one vessel has the right-of-way; it is called the "stand-on" vessel. The vessel that does not have the right-of-way is called the "give-way" or "burdened" vessel. These rules determine which vessel has the right-of-way, and what each vessel should do.

**Stand-on vessel**

The vessel with the right-of-way has the duty to continue its course and speed, except to avoid an immediate collision. When you maintain your direction and speed, the other vessel will be able to determine how best to avoid you.

**Give-way vessel**

The vessel which does not have the right-of-way has the duty to take positive and timely action to stay out of the way of the stand-on vessel. Normally, you should not cross in front of the vessel with the right-of-way. You should slow down or change directions briefly and pass behind the other vessel. You should always move in such a way that the operator of the other vessel can see what you are doing.

The General Prudential Rule regarding the right-of-way is that if a collision appears unavoidable, neither boat has the right-of-way. Both boats must avoid the collision.

In other words, follow the standard rules except when a collision will occur unless both vessels try to avoid each other. If that is the case, both vessels become give-way vessels.

**Rules when encountering vessels**

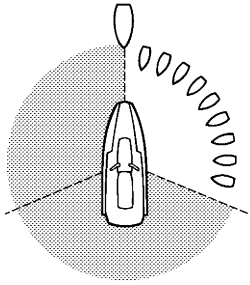
There are three main situations that you may encounter with other vessels which could lead to a collision unless the Steering Rules are followed:

Meeting: you are approaching another vessel head-on

Crossing: you are traveling across another vessel's path

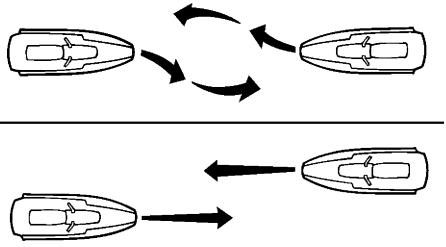
Overtaking: you are passing or being passed by another vessel

In the following illustration, your watercraft is in the center. You should give the right-of-way to any vessels shown in the white area (you are the give-way vessel). Any vessels in the shaded area must yield to you (they are the give-way vessels). Both you and the meeting vessel must alter course to avoid each other.



**Meeting**

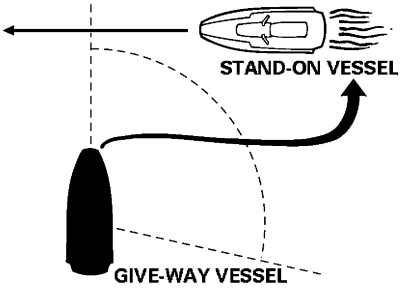
If you are meeting another power-driven vessel head on, and are close enough to run the risk of collision, neither of you has the right-of-way. Both of you should alter course to avoid an accident. You should keep the other vessel on your port (left) side. This rule does not apply if both of you will clear one another if you continue on your set course and speed.



**Crossing**

When two power-driven vessels are crossing each other's path close enough to run the risk of collision, the vessel which has the other on the starboard (right) side must keep out of the way of the other. If the other vessel is on your starboard (right) side, you must keep out of its way; you are the give-way vessel. If the other vessel is on your port (left) side, remember that you should maintain course and di-

rection, provided the other vessel gives you the right-of-way as it should.




**Overtaking**

If you are passing another vessel, you are the give-way vessel. This means that the other vessel is expected to maintain its course and speed. You must stay out of its way until you are clear of it. Likewise, if another vessel is passing you, you should maintain your speed and direction so that the other vessel can steer itself around you.

**Other special situations**

There are three other rules you should be aware of when riding your watercraft around other vessels.

**Narrow channels and bends**

When navigating in narrow channels, you should keep to the right when it is safe and practical to do so. If the operator of a power-driven vessel is preparing to go around a bend that may obstruct the view of other water vessels, the operator should sound a prolonged blast of four to six seconds on the whistle. If another vessel is around the bend, it too should sound the whistle. Even if no reply is heard, however, the vessel should still proceed around the bend with caution. If you navigate such waters with your watercraft, you will need to carry a portable air horn, available from local marine supply stores.

**Fishing vessel right-of-way**

All vessels fishing with nets, lines, or trawls are considered to be “fishing vessels” under the International Rules. Vessels with trolling lines are not considered fishing vessels. Fishing vessels have the right-of-way regardless of position. Fishing vessels cannot, however, impede the passage of other vessels in narrow channels.

**Sailing vessel right-of-way**

Sailing vessels should normally be given the right-of-way. The exceptions to this are:

(1) When the sailing vessel is overtaking the power-driven vessel, the power-driven vessel has the right-of-way.

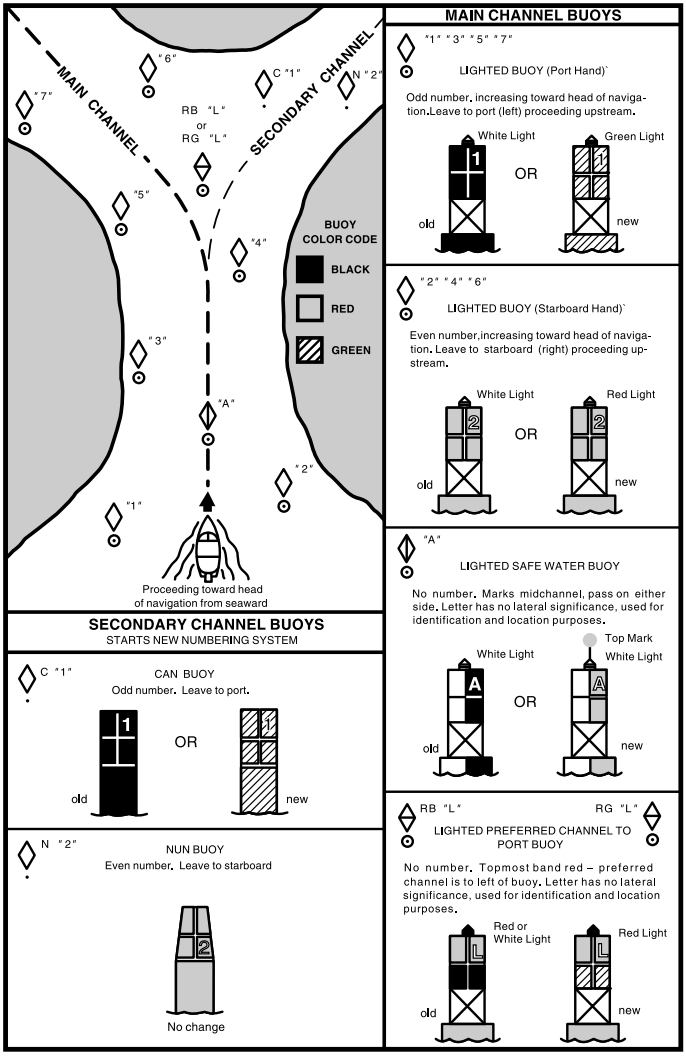
(2) Sailing vessels should keep clear of any fishing vessel.

(3) In a narrow channel, a sailing vessel should not hamper the safe passage of a power-driven vessel that can navigate only in such a channel.

**Reading buoys and other markers**

The waters of the United States are marked for safe navigation by the lateral system of buoyage. Simply put, buoys and markers have an arrangement of shapes, colors, numbers, and lights to show which side of the buoy a boater should pass on when navigating in a particular direction. The markings on these buoys are oriented from the perspective of being entered from seaward (the boater is going towards the harbor). Red buoys are passed on your starboard (right) side when proceeding from open water into the harbor, and black buoys are to your port (left) side. An easy way to remember the meaning of the colors is the phrase “red right returning”. When navigating out of the harbor, your position with respect to the buoys should be reversed; red buoys should be to port and black buoys to starboard.

Many bodies of water used by boaters are entirely within the boundaries of a particular state. The Uniform State Waterway Marking System has been devised for these waters. This system uses buoys and signs with distinctive shapes and colors to show regulatory or advisory information. These markers are white with black letters and orange borders. They signify speed zones, restricted areas, danger areas, and general information.



Remember, markings may vary by geographic location. Always consult local boating authorities before riding your watercraft in unfamiliar waters.

EJU30983

## To get more boating safety information

Be informed about boating safety. Additional publications and information can be obtained from many organizations, including the following.

**United States Coast Guard**

Consumer Affairs Staff (G-BC)
Office of Boating, Public, and Consumer Affairs
U.S. Coast Guard Headquarters
Washington, D.C. 20593-0001
http://www.uscgboating.org/

**Other sources**

You can find local rules by contacting the National Association of State Boating Law Administrators, or your local Power Squadron.

**Watercraft Education and Training**

The Online Boating Safety Course, available through the watercraft section of the yamaha-motor.com website, is a free, 50 question learning course available to the public. Upon successful completion of 80 percent or better, the user can request a certificate of completion by mail or can download one immediately. The Online Boating Safety Course, provided by the Boat/US Foundation, is approved by the National Association of State Boating Law Administrators (NASBLA) and recognized by the United States Coast Guard. This course meets the education requirement for those states that recognize non-proctored, NASBLA-approved courses.

Yamaha is the watercraft industry's leading manufacturer to build awareness and support for boating education. In 1997, Yamaha launched its GET W.E.T. (Watercraft Education and Training) initiative and has since reached out to over one million Americans promoting the benefits of boating education.

The Online Boating Safety Course:
http://www.boatus.org/

EJU30992

## Enjoy your watercraft responsibly

You share the areas you enjoy when riding your watercraft with others and with nature. So your enjoyment includes a responsibility to treat these other people, and the lands, waters, and wildlife with respect and courtesy.

Whenever and wherever you ride, think of yourself as the guest of those around you. Remember, for example, that the sound of your watercraft may be music to you, but it could be just noise to others. And the exciting splash of your wake can make waves others won't enjoy.

Avoid riding close to shoreline homes and waterfowl nesting areas or other wildlife areas, and keep a respectful distance from fishermen, other boats, swimmers, and populated beaches. When travel in areas like these is unavoidable, ride slowly and obey all laws.

Proper maintenance is necessary to ensure that the exhaust emission and sound levels of your watercraft will continue to be within regulated limits. You have the responsibility to make sure that the recommended maintenance in this owner's/operator's manual is carried out.

Remember, pollution can be harmful to the environment. Do not refuel or add oil where a spill could cause damage to nature. Remove your watercraft from the water and move it away from the shoreline before refueling. Dispose of water and any fuel and oil residue in the engine compartment according to local regulations. And keep your surroundings pleasant for the people and wildlife that share the waterways: don't litter.

# ⚠ Safety information

When you ride responsibly, with respect and courtesy for others, you help ensure that our waterways stay open for the enjoyment of a variety of recreational opportunities.

EJU43331

## Watercraft glossary

**Trolling speed**
"Trolling" is the lowest maneuvering speed. You are applying little or no throttle. The watercraft is down in the water, and there is no wake.

**Sub-planing speed**
"Sub-planing" is a medium speed. The bow of the watercraft is slightly up from the water surface, but you are still traveling through the water. There is a wake.

**Planing speed**
"Planing" is a faster speed. The watercraft is more level and is skimming on top of the water. There is a wake.

**Bow**
The front end of the watercraft.

**Stern**
The rear end of the watercraft.

**Starboard**
The right side of the watercraft when facing forward.

**Port**
The left side of the watercraft when facing forward.

**Bilge water**
Water that has collected in the engine compartment.

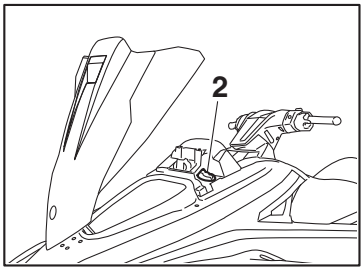
**Yamaha Engine Management System (YEMS)**
YEMS is an integrated, computerized management system that controls and adjusts ignition timing, fuel injection, engine diagnostics, and the off-throttle steering (OTS) system.

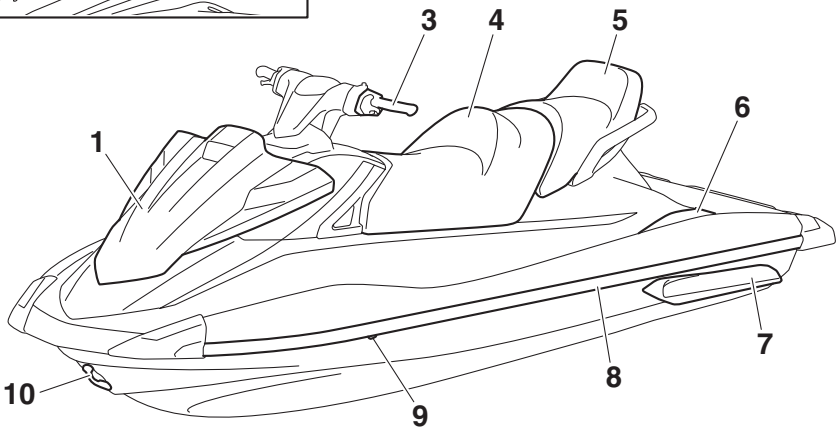
**Reverse with Intuitive Deceleration Electronics (RiDE)**
RiDE is an electronic system that controls the reverse, neutral, and deceleration operations of the watercraft.

EJU31012

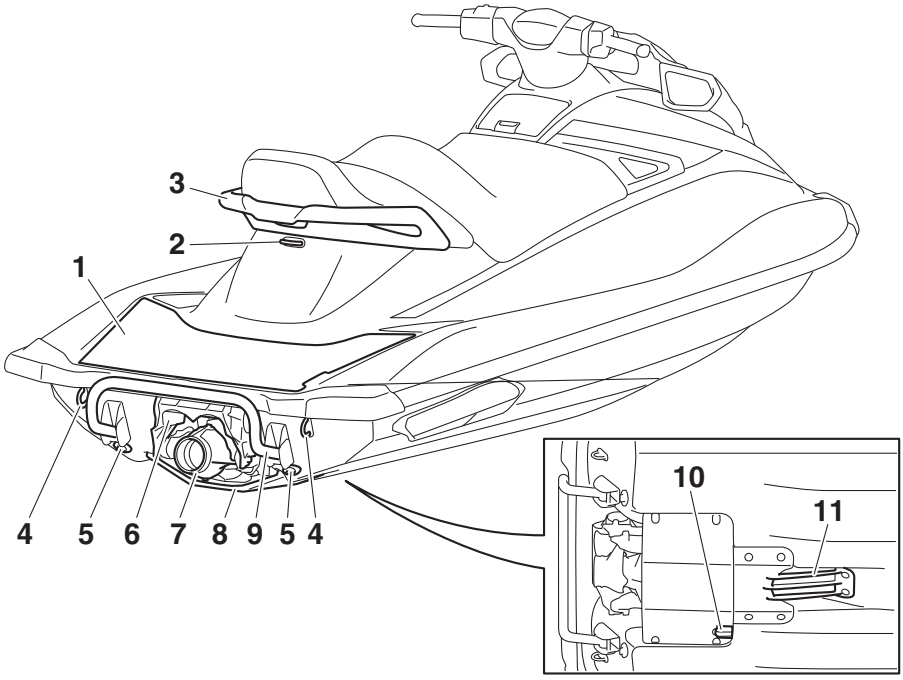
## Location of main components

**Exterior**



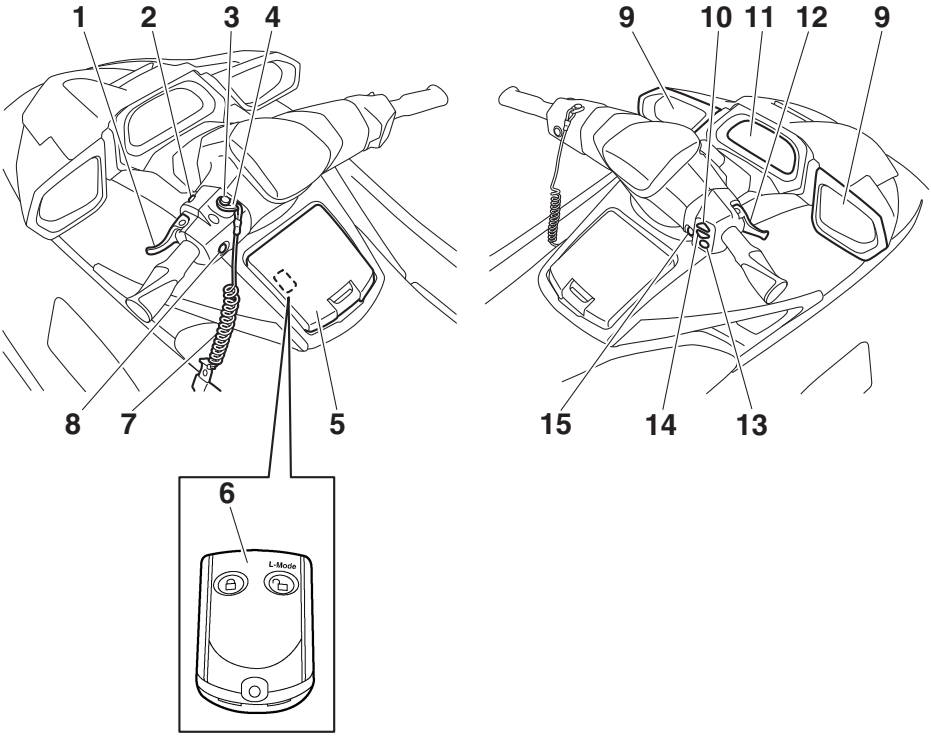




**1** Hood
**2** Fuel filler cap (page 57)
**3** Handlebar
**4** Front seat (page 50)
**5** Rear seat (page 50)
**6** Footwell
**7** Sponson
**8** Gunwale
**9** Cooling water pilot outlet (page 35)
**10** Bow eye (page 52)



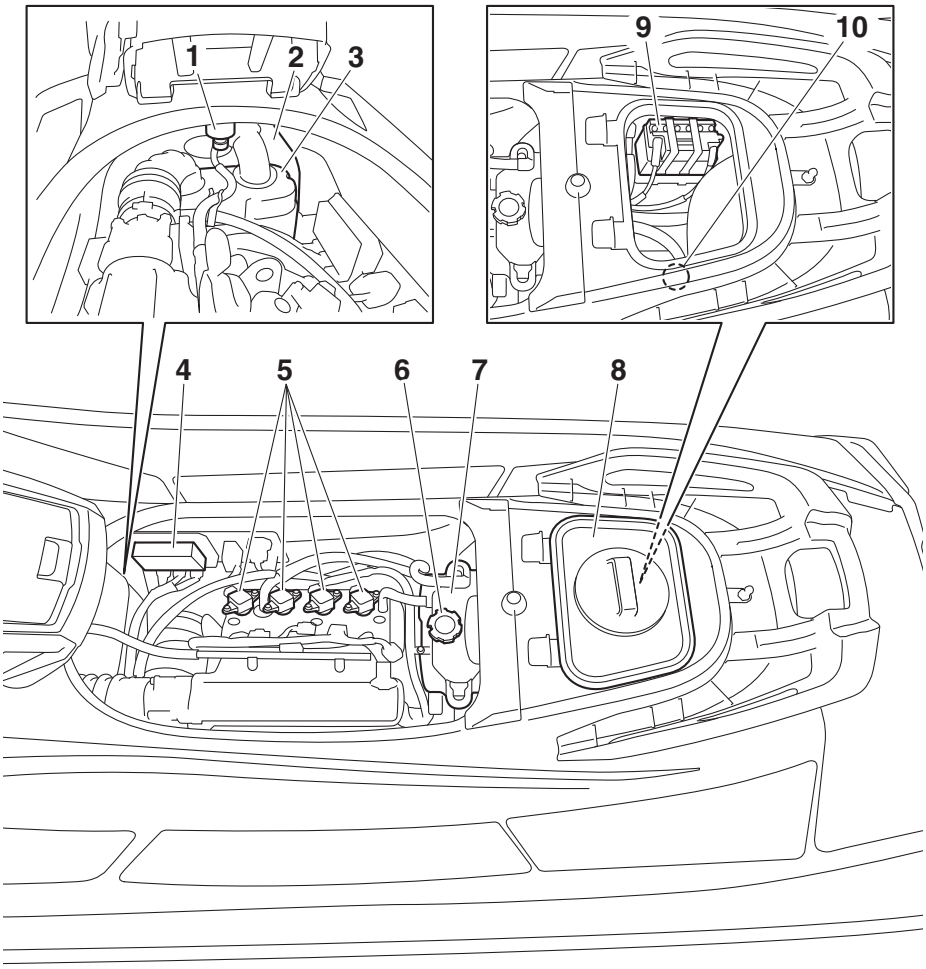

**1** Boarding platform
**2** Cleat (page 52)
**3** Handgrip (page 51)
**4** Stern eye (page 52)
**5** Stern drain plug (page 61)
**6** Reverse gate (page 37)
**7** Jet thrust nozzle
**8** Ride plate
**9** Reboarding step (VX Deluxe / VX Cruiser) (page 51)
**10** Speed sensor
**11** Intake grate

# Description




**1** RiDE lever (page 37)
**2** Start switch (page 33)
**3** Engine shut-off switch (page 33)
**4** Clip (page 33)
**5** Glove compartment (page 54)
**6** Remote control transmitter (VX Deluxe / VX Cruiser) (page 31)
**7** Engine shut-off cord (lanyard) (page 33)
**8** Engine stop switch (page 33)
**9** Rearview mirror
**10** Cruise assist up switch (VX Deluxe / VX Cruiser) (page 42)
**11** Multifunction information center (page 44)
**12** Throttle lever (page 34)
**13** “SET” switch (VX Deluxe / VX Cruiser) (page 42)
**14** Cruise assist down switch (VX Deluxe / VX Cruiser) (page 42)
**15** “NO-WAKE MODE” switch (VX Deluxe / VX Cruiser) (page 40)

**Engine compartment**

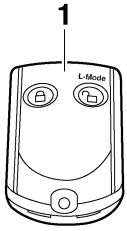



**1** Water separator (page 35)
**2** Fuel tank
**3** Air filter case
**4** Fuse box (page 102)
**5** Spark plug/Spark plug cap/Ignition coil
**6** Oil tank filler cap/Dipstick
**7** Oil tank
**8** Removable watertight storage compartment (page 55)
**9** Battery (page 67)
**10** Flushing hose connector

EJU31026
## Watercraft control functions

EJU43910
### Remote control transmitter (VX Deluxe / VX Cruiser)

The Yamaha Security System and Low RPM Mode settings can be selected by operating the remote control transmitter. (See page 32 for Yamaha Security System setting procedures and page 39 for Low RPM Mode activation procedures.)

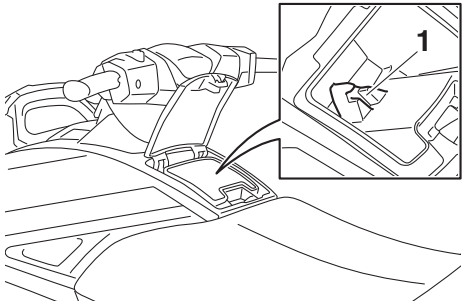



**1** Remote control transmitter

Since the watercraft is programmed to recognize the internal code from this transmitter only, the settings can only be selected with this transmitter.

If you accidentally lose your remote control transmitter or if it is not operating properly, contact a Yamaha dealer.

When operating the watercraft, always keep the transmitter with you, such as by storing it in the transmitter holder in the glove compartment, so that it is not lost.




**1** Transmitter holder

ECJ00753

***NOTICE***

- **The remote control transmitter is not completely waterproof. Do not submerge the transmitter or operate it underwater. If the transmitter is submerged, dry it with a soft, dry cloth, and then check that it is operating properly. If the transmitter is not operating properly, contact a Yamaha dealer.**
- **Keep the remote control transmitter away from high temperatures and do not place it in direct sunlight.**
- **Do not drop the remote control transmitter, subject it to strong shocks, or place any heavy items on it.**
- **Use a soft, dry cloth to clean the remote control transmitter. Do not use detergent, alcohol, or other chemicals.**
- **Do not attempt to disassemble the remote control transmitter yourself. Otherwise, the transmitter may not operate properly. If the transmitter needs a new battery, contact a Yamaha dealer. Refer to local hazardous waste regulations when disposing of transmitter batteries.**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following

two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

ECJ00031

***NOTICE***

**Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the remote control transmitter.**

EJU31385

## Yamaha Security System (VX Deluxe / VX Cruiser)

The Yamaha Security System functions to help prevent unauthorized use or theft of the watercraft. The lock and unlock modes of the security system can be selected by operating the remote control transmitter that is included with this watercraft. The engine cannot be started if the lock mode of the security system is selected. The engine can only be started if the unlock mode is selected. (See page 31 for information on the remote control transmitter.)

**TIP:**

The Yamaha Security System settings can only be selected while the engine is stopped.

EJU36776

### Yamaha Security System settings

The Yamaha Security System settings will be confirmed by the number of beeps when the remote control transmitter is operated, and by the "UNLOCK" indicator light of the multifunction information center. (See page 44 for information on the multifunction information center.)

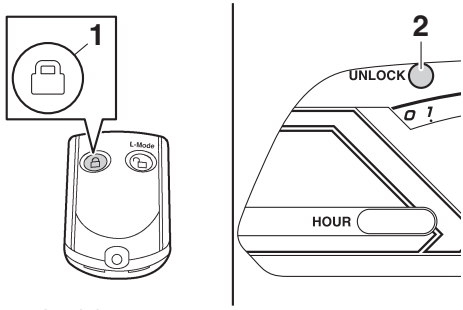
| Number of beeps | Yamaha Security System mode | "UNLOCK" indicator light |
|---|---|---|
| ▬ | Lock | Goes off |
| ▬ ▬ | Unlock (normal operation mode) | Comes on |
| ▬ ▬ ▬ | Unlock (Low RPM Mode) | Comes on |

**TIP:**

- The beeper sounds two times for the normal operation mode or three times for the Low RPM Mode. (See page 39 for Low RPM Mode activation procedures.)
- If the remote control transmitter is operated while the multifunction information center is in the standby state, the center will perform the initial operation, and then the setting is selected.

To select the lock mode:

Push the lock button on the remote control transmitter briefly. The beeper sounds once and the "UNLOCK" indicator light blinks once, then goes off. This indicates the lock mode is selected.

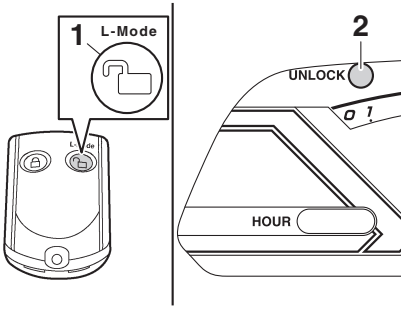



**1** Lock button
**2** "UNLOCK" indicator light

To select the unlock mode:

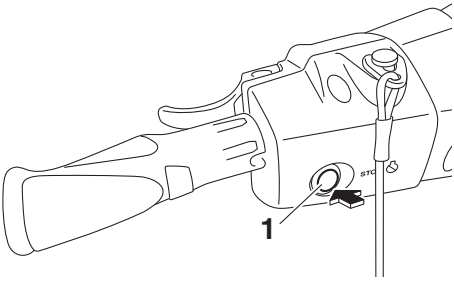
Push the "L-Mode" (unlock) button on the remote control transmitter briefly. The beeper sounds two or three times and the "UN-

LOCK" indicator light blinks two or three times, then comes on. This indicates the unlock mode is selected.




**1** "L-Mode" (unlock) button
**2** "UNLOCK" indicator light

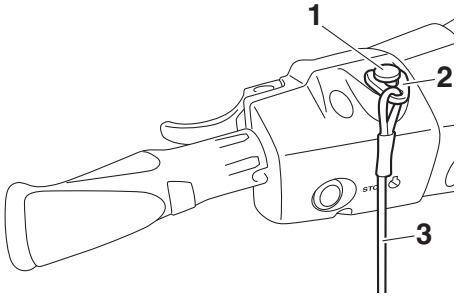
EJU31153
### Engine stop switch "⏻"
The engine stop switch (red button) stops the engine when the switch is pushed.




**1** Engine stop switch

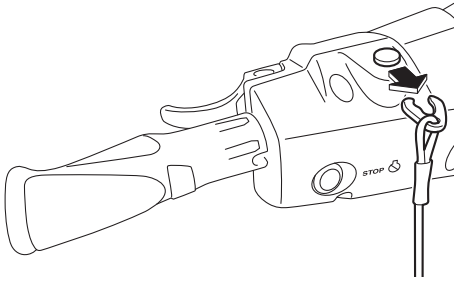
EJU31164
### Engine shut-off switch "⚠"
The engine shut-off switch automatically stops the engine when the clip, on the end of the engine shut-off cord (lanyard), is removed from the switch, such as if the operator falls off the watercraft.

Insert the clip under the engine shut-off switch before starting the engine.




**1** Engine shut-off switch
**2** Clip
**3** Engine shut-off cord (lanyard)

When the engine is not running, remove the clip from the engine shut-off switch to prevent accidental starting or unauthorized operation by children or others.



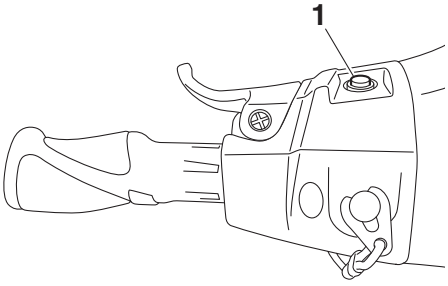
EJU43630
### Start switch "⏻"
ECJ01311

***NOTICE***

**Do not run the engine over 4000 r/min on land. Also, do not run the engine for more than 15 seconds without supplying water, otherwise the engine could overheat.**

The start switch (green button) starts the engine when the switch is pushed.
Release the start switch as soon as the engine starts to run. If the engine does not start

in 5 seconds, release the start switch, wait 15 seconds, and then try again. ***NOTICE:*** **Never push the start switch while the engine is running. Do not operate the start switch for more than 5 seconds, otherwise the battery will be discharged and the engine will not start. Also, the starter motor could be damaged.** [ECJ01041]



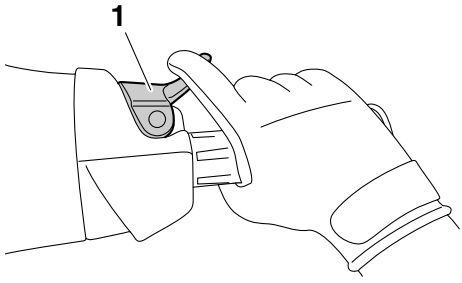

**1** Start switch

The engine will not start under any of the following conditions:

- Clip is removed from the engine shut-off switch.
- Throttle lever is squeezed.
- Throttle lever is malfunctioning.
- RiDE lever is squeezed.
- RiDE lever is malfunctioning.
- VX Deluxe / VX Cruiser: Lock mode of the Yamaha Security System has been selected. (See page 32 for Yamaha Security System setting procedures.)

EJU31212
### Throttle lever

The throttle lever increases the engine speed when the lever is squeezed.

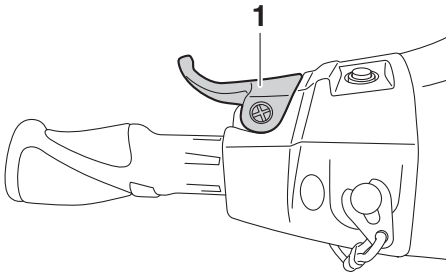



**1** Throttle lever

The throttle lever returns automatically to its fully closed (idle) position when released.

EJU43341
### RiDE lever

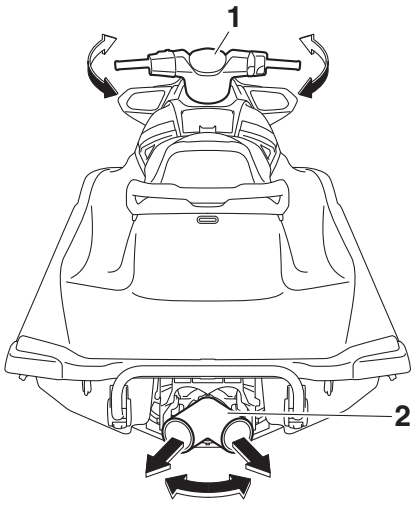
When the RiDE lever is squeezed, the reverse gate lowers and the watercraft starts moving in reverse. If the watercraft is moving forward, the watercraft gradually slows down until it stops, and then the watercraft starts moving in reverse.




**1** RiDE lever

When the RiDE lever is released, it automatically returns to its fully closed (idle) position and the reverse gate moves to the neutral position.

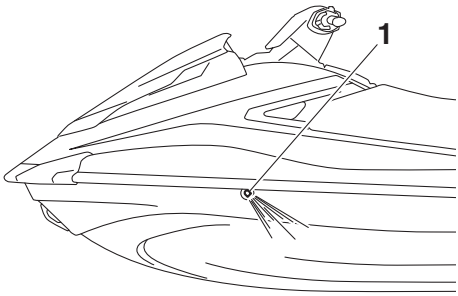
EJU31262
### Steering system
By turning the handlebars in the direction you wish to travel, the angle of the jet thrust nozzle is changed, and the direction of the watercraft is changed accordingly.




**1** Handlebar
**2** Jet thrust nozzle

Since the strength of the jet thrust determines the speed and degree of a turn, throttle must always be applied when attempting a turn, except at trolling speed.
This model is equipped with the Yamaha Engine Management System (YEMS) that includes an off-throttle steering (OTS) system. It will activate at planing speeds should you attempt to steer the watercraft after releasing the throttle lever. The OTS system assists in turning by continuing to supply some thrust while the watercraft is decelerating, but you can turn more sharply if you apply throttle while turning the handlebars. The OTS system does not function below planing speeds or when the engine is off. Once the engine slows down, the watercraft will no longer turn in response to handlebar input until you apply throttle again or you reach trolling speed.

EJU35975
### Cooling water pilot outlet
When the engine is running, some of the cooling water that is circulated in the engine is discharged from the cooling water pilot outlet.



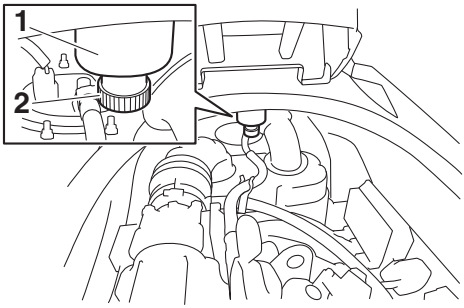

**1** Cooling water pilot outlet

There is a cooling water pilot outlet on the port (left) side of the watercraft. To check for proper operation of the cooling system, make sure that water is being discharged from the cooling water pilot outlet. If water is not being discharged from the outlet, stop the engine and check the jet intake for clogging. (See page 100 for information on the jet intake.)

**TIP:**
- It will take about 60 seconds for the water to reach the outlet after the engine is started.
- Water discharge may not be constant when the engine is running at idling speed. If this occurs, apply a little throttle to make sure that water discharges properly.

EJU40323
### Water separator
The water separator prevents water from entering the fuel tank by collecting any water that has entered the fuel tank breather hose if the watercraft was capsized.

If water has collected in the water separator, drain it by loosening the drain screw.




**1** Water separator
**2** Drain screw

To drain water from the water separator:

(1) Place a drain pan or dry cloth under the water separator.
(2) Gradually loosen the drain screw to drain the water. Catch the draining water in the drain pan or soak it up with the dry cloth so that it does not spill into the engine compartment. If any water spills into the watercraft, be sure to wipe it up with a dry cloth.
(3) Securely tighten the drain screw until it stops.

EJU40013
## Watercraft operation functions

EJU43153
### Shift system

EWJ01773
**⚠ WARNING**

- **Make sure that there are no obstacles or people behind you before shifting into reverse.**
- **Do not touch the reverse gate while the RiDE lever is being operated, otherwise you could be pinched.**
- **If the RiDE lever and throttle lever are being operated at the same time, do not release only the RiDE lever. Otherwise, the watercraft could accelerate more quickly than expected, which may lead to an accident.**

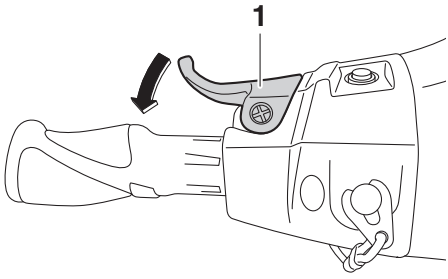
The RiDE lever and throttle lever can be operated to change the forward or rearward movement of the watercraft only when the engine is running. When the RiDE lever is squeezed, the reverse gate lowers and deflects the water jet being discharged from the jet thrust nozzle so that the watercraft moves in reverse or is in neutral. When the throttle lever is squeezed, the reverse gate rises and the watercraft moves forward.

**TIP:**

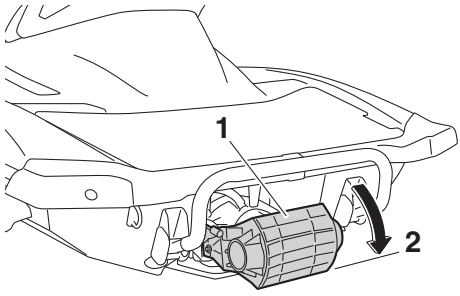
- This model is equipped with a function which limits the engine speed in reverse.
- When the engine is started, the reverse gate automatically moves to the neutral position.

To shift into reverse:

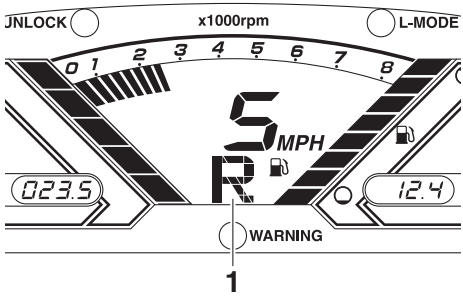
(1) Release the throttle lever.
(2) Squeeze the RiDE lever. The reverse gate will lower, the engine speed will increase, the watercraft will start moving in reverse, and the "R" (reverse) shift indicator will be displayed.




**1** RiDE lever




**1** Reverse gate
**2** Reverse position

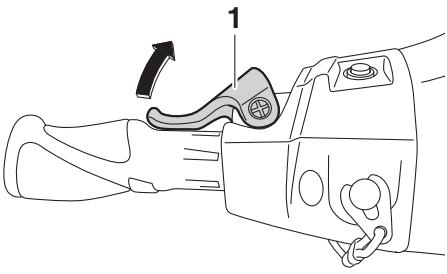



**1** "R" (Reverse position)

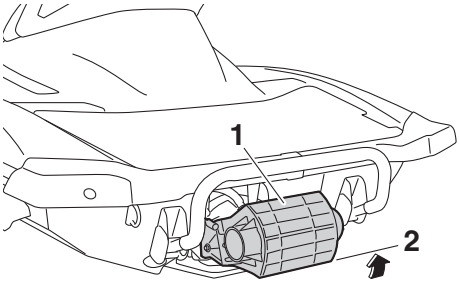
To shift into neutral from reverse:

Release the RiDE lever. The reverse gate will automatically return to the neutral position

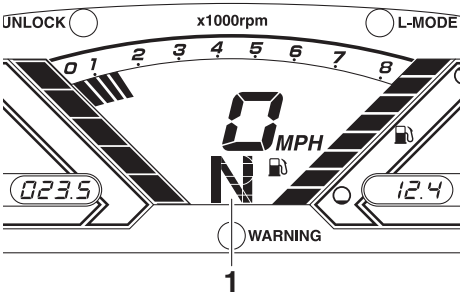
and the “N” (neutral) shift indicator will be displayed.




**1** RiDE lever




**1** Reverse gate
**2** Neutral position

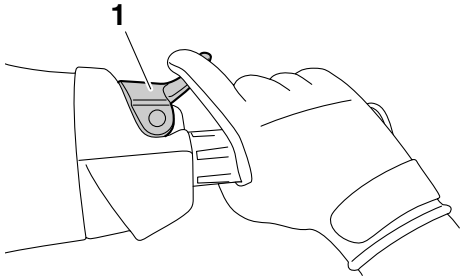



**1** “N” (Neutral position)

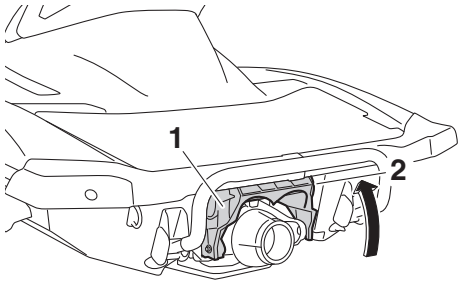
**TIP:**
Although the neutral position helps keep the watercraft from moving even when the engine is running, some movement may occur.

To shift into forward:

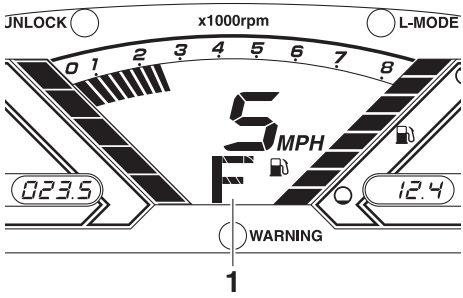
(1) Release the RiDE lever.
(2) Squeeze the throttle lever. The reverse gate will rise completely, the engine speed will increase, the watercraft will start moving forward, and the “F” (forward) shift indicator will be displayed.




**1** Throttle lever

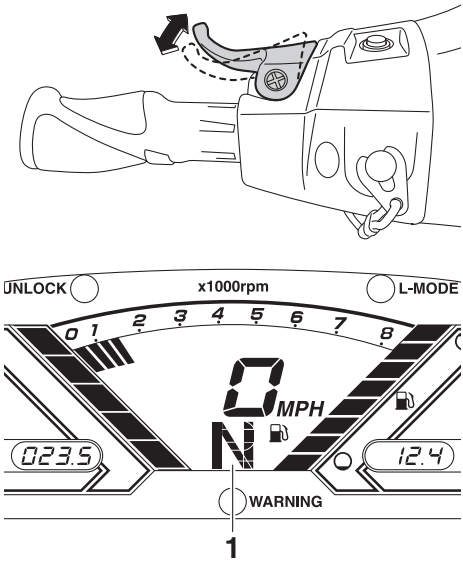



**1** Reverse gate
**2** Forward position




**1** “F” (Forward position)

**TIP:**
If the RiDE lever is squeezed while the throttle lever is squeezed, the watercraft will slow down, and once stopped, move in reverse.
To shift into neutral from forward:
(1) Release the throttle lever.
(2) Lightly squeeze and release the RiDE lever. The "N" (neutral) shift indicator will be displayed.



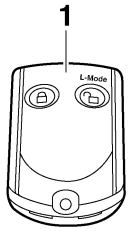

**1** "N" (Neutral position)

**TIP:**
If the RiDE lever is squeezed continuously, the reverse gate will move to the reverse position.

EJU40001
## Watercraft operation modes

EJU43820
### Low RPM Mode (VX Deluxe / VX Cruiser)

The Low RPM Mode is a function that limits the maximum engine speed to approximately 90% of the maximum engine speed in the normal mode.
The Low RPM Mode can only be activated and deactivated by operating the remote control transmitter that is included with this watercraft. (See page 31 for information on the remote control transmitter.)




**1** Remote control transmitter

**TIP:**
The Low RPM Mode can only be activated when the engine is stopped in the unlock mode of the Yamaha Security System.

**Activating and deactivating the Low RPM Mode**

Activation of the Low RPM Mode will be confirmed by the number of beeps when the remote control transmitter is operated, and by the "L-MODE" indicator light of the multifunction information center. (See page 44 for information on the multifunction information center.)

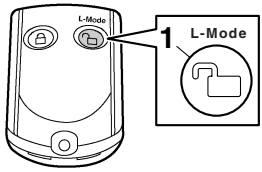
| Number of beeps | Low RPM Mode operation | "L-MODE" indicator light |
|---|---|---|
| ▬ ▬ ▬ | Activated | Comes on |
| ▬ ▬ | Deactivated | Goes off |

**TIP:**
If the remote control transmitter is operated while the multifunction information center is in the standby state, the center performs the initial operation, and then the setting is selected.

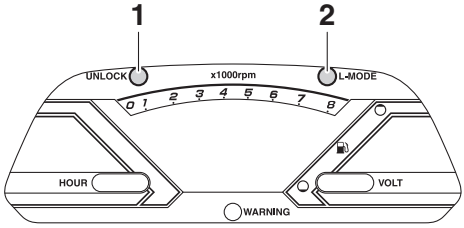
To activate the Low RPM Mode:

Push the "L-Mode" (unlock) button on the remote control transmitter for more than 4 seconds. Once the beeper sounds three times and the "UNLOCK" indicator light blinks three times, then comes on, the "L-MODE" indicator light comes on and the Low RPM Mode is activated.

**TIP:**
If the Low RPM Mode is activated immediately after the information display turns off, the "L-MODE" indicator light will not come on. The "L-MODE" indicator light will come on when the engine is started.




**1** "L-Mode" (unlock) button




**1** "UNLOCK" indicator light
**2** "L-MODE" indicator light

To deactivate the Low RPM Mode:

Push the "L-Mode" (unlock) button on the remote control transmitter for more than 4 seconds. Once the beeper sounds two times and the "UNLOCK" indicator light blinks two times, then comes on, the "L-MODE" indicator light goes off and the Low RPM Mode is deactivated. When the Low RPM Mode is deactivated, the watercraft returns to the normal operation mode.

EJU42484

### No-wake mode (VX Deluxe / VX Cruiser)

The no-wake mode is a function that maintains the engine speed at a fixed setting for operating the watercraft at low speeds. This function can be used only for forward water-

craft operation or when the watercraft is in neutral.

**TIP:**

- The no-wake mode can only be activated after 5 seconds have elapsed since starting the engine.
- If the no-wake mode is activated when the watercraft is operating in neutral, the reverse gate will move to the forward position.

**Activating and deactivating the no-wake mode**

Activation of the no-wake mode will be confirmed by the number of beeps when the "NO-WAKE MODE" switch is pushed, and by the digital speedometer display of the multifunction information center. (See page 44 for information on the multifunction information center.)

| Number of beeps | No-wake mode operation | Digital speedometer display |
|---|---|---|
| ● ● ● | Activated | Starts blinking |
| ● ● | Deactivated | Stops blinking |

**TIP:**

The beeps and the blinking digital speedometer display also indicate the activation of the cruise assist. (See page 42 for information on the cruise assist.)

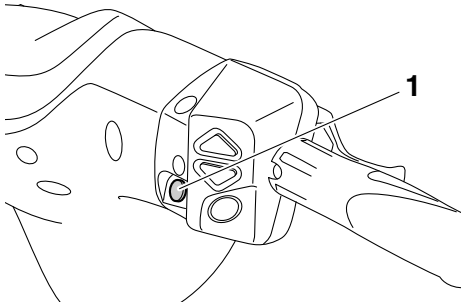
To activate the no-wake mode:

(1) Release the throttle lever and let the engine speed return to idle.

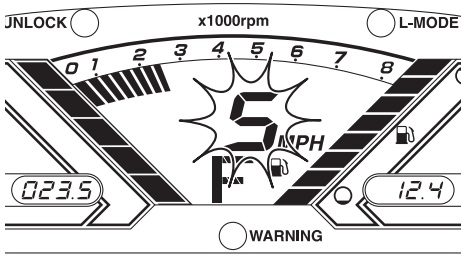
(2) Push and hold the "NO-WAKE MODE" switch. Once the beeper sounds three times quickly and "8" (when kilometers are selected) or "5" (when miles are selected) starts blinking in the digital speedometer display, the no-wake mode is activated. Keep the throttle lever in the fully closed (idle) position when the no-wake mode is activated.

**TIP:**

The digital speedometer display blinks continually while the no-wake mode is activated.




**1** "NO-WAKE MODE" switch




To deactivate the no-wake mode:

Perform one of the following operations. The beeper sounds two times quickly and the digital speedometer display stops blinking when the no-wake mode is deactivated.

- Push the "NO-WAKE MODE" switch.
- Squeeze the throttle lever.
- Squeeze the RiDE lever.

**TIP:**

The no-wake mode is also deactivated when the engine is stopped.

EJU43980
## Cruise assist (VX Deluxe / VX Cruiser)
The cruise assist is a function for maintaining a desired engine speed within a fixed range while operating the watercraft.

**TIP:**
- The cruise assist can only be set between engine speeds of approximately 4000 r/min and approximately 7000 r/min.
- The cruise assist cannot be activated in the Low RPM Mode. (See page 39 for Low RPM Mode activation procedures.)

**Activating and deactivating the cruise assist**
Activation of the cruise assist will be confirmed by the number of beeps when the "SET" switch, cruise assist up switch, or cruise assist down switch is pushed, and by the digital speedometer display of the multifunction information center. (See page 44 for information on the multifunction information center.)

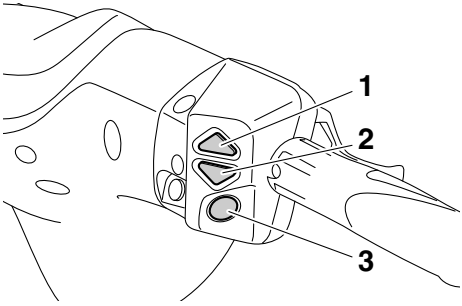
| Number of beeps | Cruise assist operation | Digital speedometer display |
|---|---|---|
| ● ● ● | Activated | Starts blinking |
| ● ● | Deactivated | Stops blinking |
| ● | Set engine speed increases or decreases | Continues blinking |

**TIP:**
The beeps and the blinking digital speedometer display also indicate the activation of the no-wake mode. (See page 40 for information on the no-wake mode.)

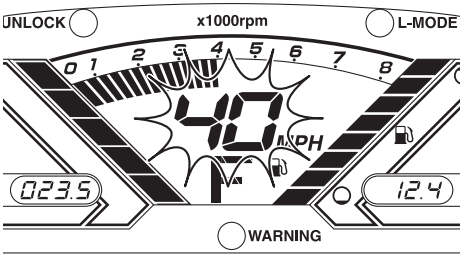
To activate the cruise assist:
(1) Operate the throttle lever until the desired engine speed is reached.
(2) When the engine speed reaches the desired cruise assist setting, push the "SET" switch. Once the beeper sounds three times quickly and the digital speedometer display starts blinking, the cruise assist is activated. When the cruise assist is activated, slowly squeeze the throttle lever to keep it squeezed further than the position at which the cruise assist was set; releasing the throttle lever will deactivate the cruise assist.

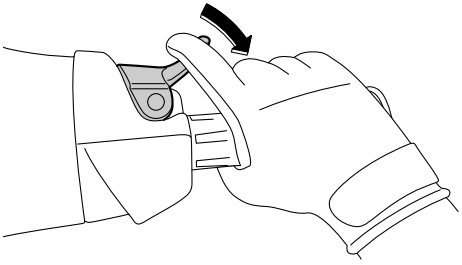
**TIP:**
The digital speedometer display blinks continually while the cruise assist is activated. Make sure that the beeper has sounded and the digital speedometer display is blinking before squeezing the throttle lever to the full throttle position. If the speedometer display is not blinking, the cruise assist is not activated

and the engine will respond normally to the throttle operation.




**1** Cruise assist up switch
**2** Cruise assist down switch
**3** "SET" switch

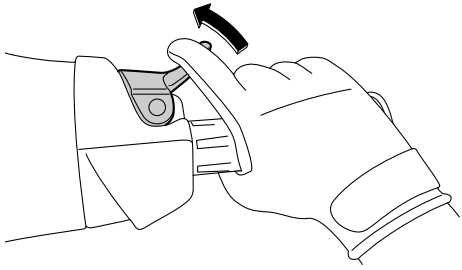


**TIP:**
Once the cruise assist is activated, the set engine speed can be increased by pushing the cruise assist up switch or decreased by pushing the cruise assist down switch. Each time a switch is pushed, the beeper will sound one time quickly and the set engine speed will change. However, the adjustment is limited to a maximum of five increments above or below the initial cruise assist setting.

To deactivate the cruise assist:

Relax your grip on the throttle lever. The beeper sounds two times quickly and the digital speedometer display stops blinking when the cruise assist is deactivated.

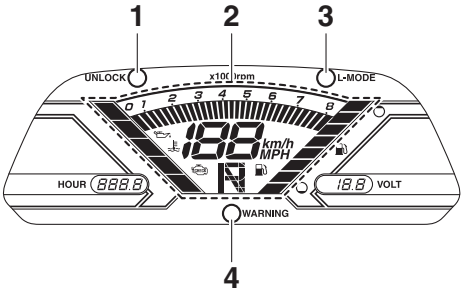


**TIP:**
The cruise assist is also deactivated when the engine is stopped.

EJU43760

## Multifunction information center

The multifunction information center displays various watercraft information.




**1** "UNLOCK" indicator light (VX Deluxe / VX Cruiser)
**2** Information display
**3** "L-MODE" indicator light (VX Deluxe / VX Cruiser)
**4** "WARNING" indicator light

### Multifunction information center initial operation

When the multifunction information center is activated, all of the display segments come on. After 2 seconds, the warning indicators in the information display go off, and then the center starts to operate normally.

If only the multifunction information center is activated, the "WARNING" indicator light blinks once.

**TIP:**

VX Deluxe / VX Cruiser: The "UNLOCK" indicator light also comes on as part of the initial operation.

The "UNLOCK" indicator light will go off when the engine is started.

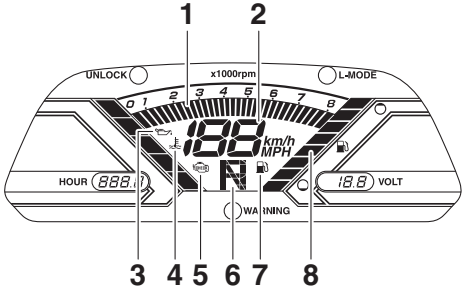
### Multifunction information center standby state

If the multifunction information center does not receive any operation input within 25 seconds after the engine stops, the center will turn off and enter a standby state. When the engine is started again, the displays return to their state before the center turned off, and then the center starts to operate normally.

EJU35026

### Information display

The information display shows watercraft operating conditions.




**1** Tachometer
**2** Speedometer
**3** Oil pressure warning indicator
**4** Engine overheat warning indicator
**5** Check engine warning indicator
**6** Shift indicator
**7** Fuel indicator
**8** Fuel level meter

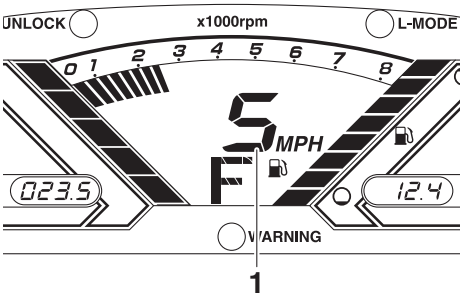
EJU43830

### Speedometer

The speedometer shows the watercraft speed against water.

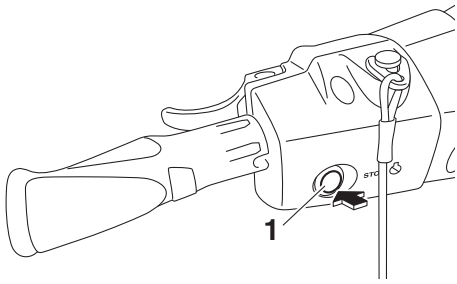
By switching the display units, the speed can be shown in kilometers per hour "km/h" or miles per hour "MPH".

**TIP:**
"MPH" is selected as the display unit at the Yamaha factory.

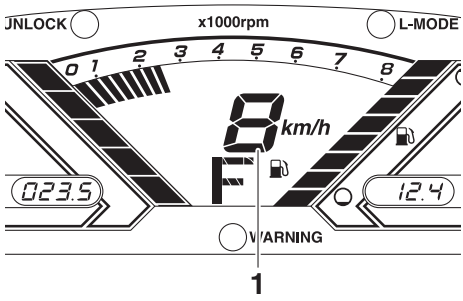



**1** Speedometer

To switch the speedometer display units:
Start the engine, stop the engine, and then push the engine stop switch for at least 4 seconds before the multifunction information center turns off. The speedometer display units change.
To switch the speedometer display units again, repeat this procedure.



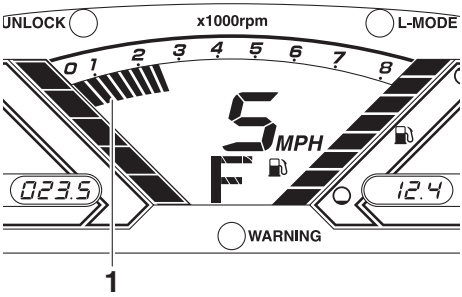

**1** Engine stop switch




**1** Speedometer

EJU31464
### Tachometer
The tachometer shows the engine speed.

The outer numbers × 1000 r/min and display segments on the meter show the engine speed.

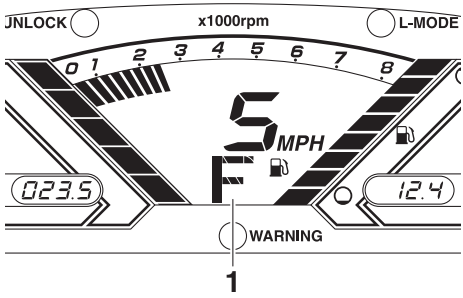



**1** Tachometer

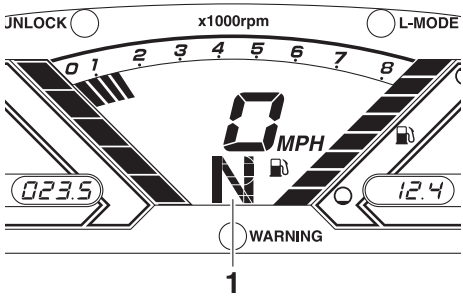
EJU43890

### Shift indicator

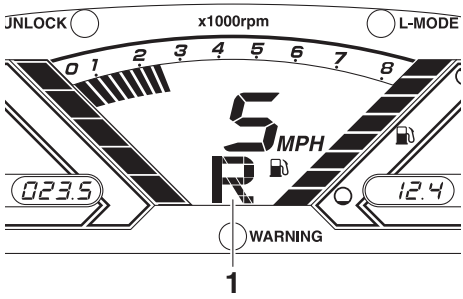
This indicator shows the reverse gate shift positions: “F” (forward), “N” (neutral), and “R” (reverse). (See page 37 for shifting procedures.)




**1** “F” (Forward position)




**1** “N” (Neutral position)



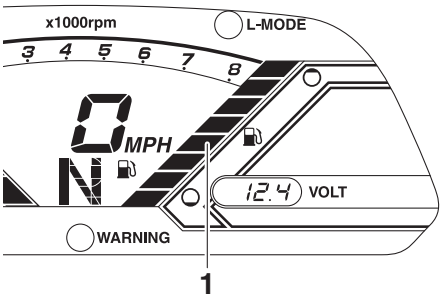

**1** “R” (Reverse position)

EJU31515

### Fuel level meter

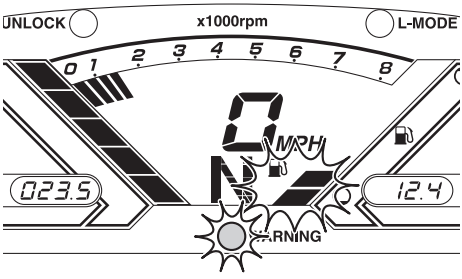
The fuel level meter shows the amount of fuel remaining in the fuel tank. The amount of remaining fuel is shown using eight display segments, which disappear two at a time as the fuel level decreases.

**TIP:**
The accuracy of the fuel level meter varies depending on the operating conditions. Use this function as a reference only.



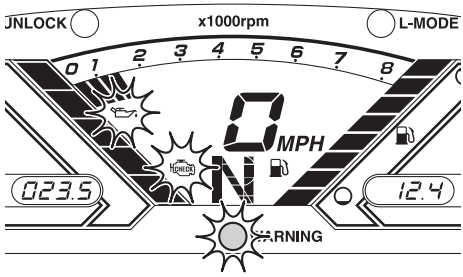

**1** Fuel level meter

EJU44310
**Fuel level warning**
If the fuel remaining in the fuel tank drops to about 11 L (2.9 US gal, 2.4 Imp.gal), the lowest two fuel level segments, the fuel indicator, and the “WARNING” indicator light blink, and the buzzer sounds intermittently for 30 seconds.




If the fuel level warning is activated, refill the fuel tank as soon as possible. (See page 57 for information on filling the fuel tank.)
After the fuel tank is refilled, the warning signals will be cleared when the engine is restarted.

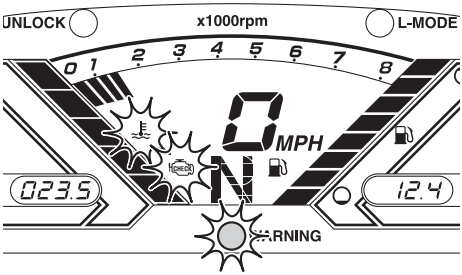
EJU43720
**Oil pressure warning**
If the oil pressure drops significantly, the oil pressure warning indicator, the check engine warning indicator, and the “WARNING” indicator light blink, and the buzzer sounds intermittently for 30 seconds. At the same time, the maximum engine speed is limited.



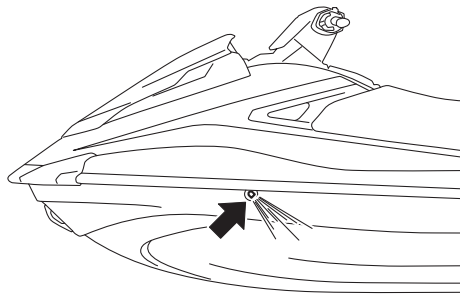

If the oil pressure warning is activated, immediately reduce the engine speed, return to shore, and then check the engine oil level. (See page 59 for information on checking the engine oil level.) If the oil level is sufficient, have a Yamaha dealer check the watercraft.

EJU43901
**Engine overheat warning**
If the engine temperature rises significantly, the engine overheat warning indicator, the check engine warning indicator, and the “WARNING” indicator light blink, and the buzzer sounds intermittently. After 5 seconds, the engine overheat warning indicator and the “WARNING” indicator light stop blinking and remain on, and the buzzer sounds continuously. After 30 seconds, the buzzer stops. While the engine overheat

warning is activated, the maximum engine speed is limited.




If the engine overheat warning is activated, immediately reduce the engine speed, return to shore, and then make sure that water is being discharged from the cooling water pilot outlet while the engine is running. If there is no discharge of water, stop the engine, and then check the jet intake for clogging. (See page 100 for information on the jet intake.) ***NOTICE:*** **If you cannot locate and correct the cause of the overheating, consult a Yamaha dealer. Continuing to operate at higher speeds could result in severe engine damage.** [ECJ00042]

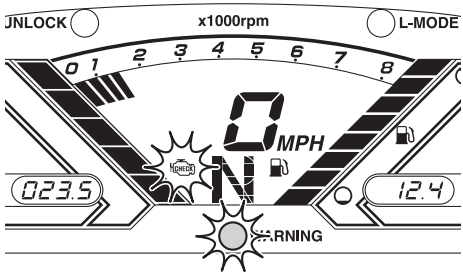


EJU43731

### Check engine warning

If a sensor malfunction or a short circuit is detected, the check engine warning indicator and the “WARNING” indicator light blink, and the buzzer sounds intermittently for 30 seconds.

If the engine is stopped after the check engine warning is activated, the information display will indicate an error code.




If the check engine warning is activated, immediately reduce the engine speed, return to shore, and have a Yamaha dealer check the engine.

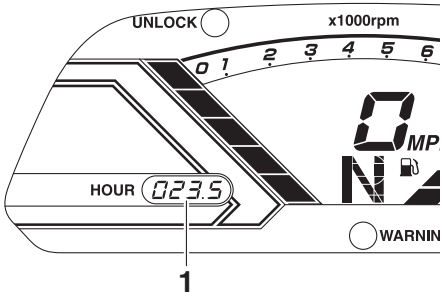
EJU43740

### Hour meter

The hour meter shows the total number of hours that the engine has been running since the watercraft was new.

**TIP:**

The elapsed time will be kept even if the battery terminals have been disconnected.



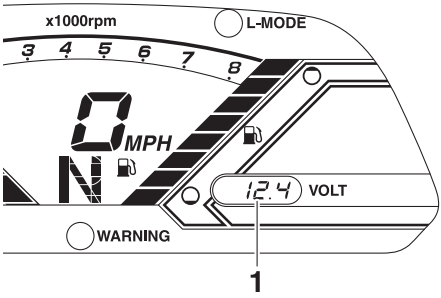

**1** Hour meter

EJU43750

### Voltmeter

The voltmeter shows the battery voltage. When the battery voltage is normal, the voltmeter displays approximately 12 volts.

If the battery voltage has dropped significantly, “LO” is displayed on the voltmeter. If the battery voltage has risen significantly, “HI” is displayed. If “LO” or “HI” is displayed, immediately return to shore and have a Yamaha dealer service the watercraft.




**1** Voltmeter

EJU40334

## Equipment

EJU42203

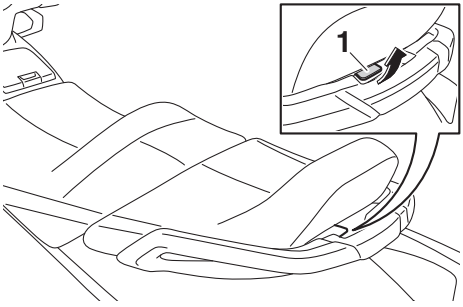
### Seats

The front and rear seats are removable.

Remove the seats to access the engine compartment and removable watertight storage compartment.

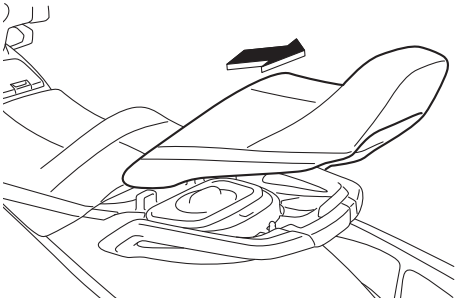
To remove the rear seat:

(1) Pull the rear seat latch up, and then lift up the rear of the seat.



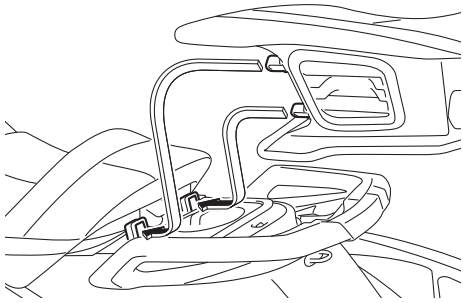

**1** Seat latch

(2) Pull the seat rearward and remove it.

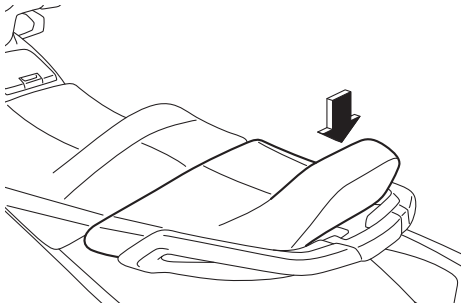


To install the rear seat:

(1) Insert the projections on the front of the seat into the stays on the deck.



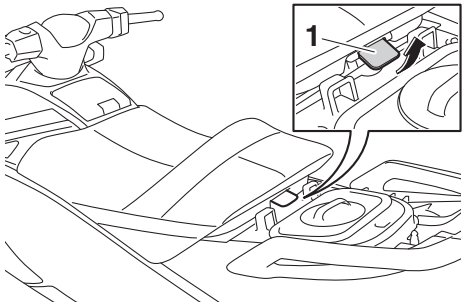
(2) Push the rear of the seat down to securely lock it in place.



To remove the front seat:

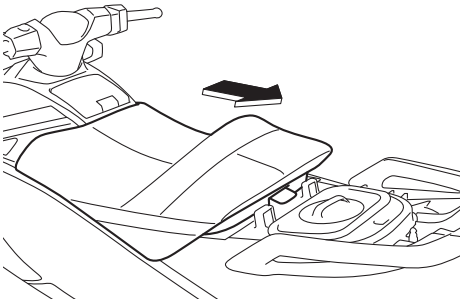
(1) Remove the rear seat.

(2) Pull the front seat latch up, and then lift up the rear of the seat.



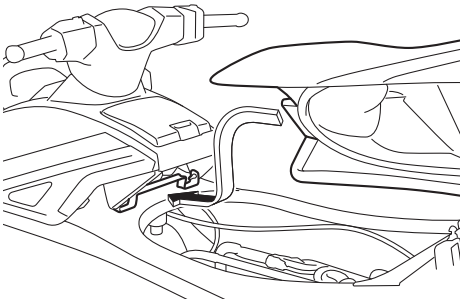

**1** Seat latch

(3) Pull the seat rearward and remove it.

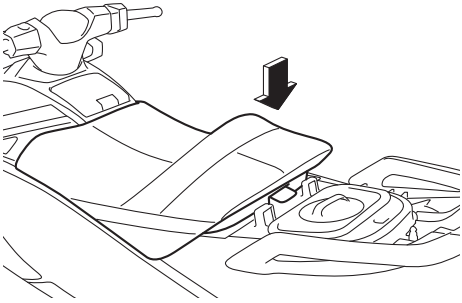


To install the front seat:

(1) Insert the projection on the front of the seat into the stay on the deck.



(2) Push the rear of the seat down to securely lock it in place.

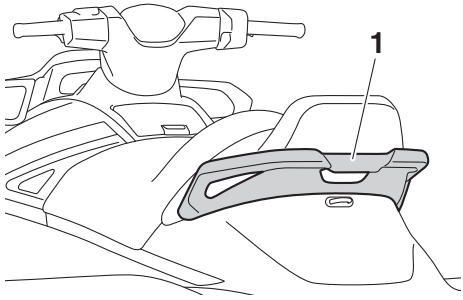


(3) Securely install the rear seat in its original position.

EJU31364

## Handgrip

The handgrip is used when boarding the watercraft from the water and when the spotter is facing rearward. **WARNING! Do not use the handgrip to lift the watercraft. The handgrip is not designed to support the watercraft's weight. If the handgrip breaks, the watercraft could fall, which could result in severe injury.** [EWJ00022]




**1** Handgrip

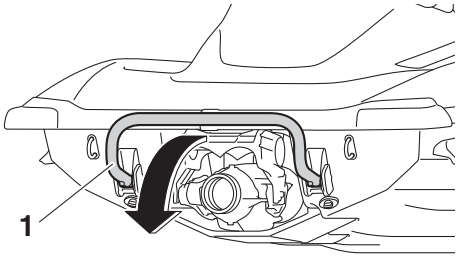
EJU34865

## Reboarding step (VX Deluxe / VX Cruiser)

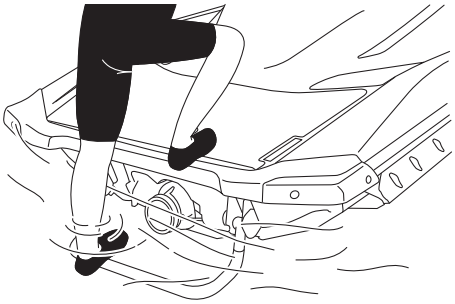
The reboarding step is used to assist in reboarding the watercraft from the water.

When boarding the watercraft, push the reboarding step down until it stops. The step returns automatically to its original position when released. **WARNING! Do not use the reboarding step to lift the watercraft. The reboarding step is not designed to support the watercraft's weight. If the reboarding**

**step breaks, the watercraft could fall, which could result in severe injury.** [EWJ01212]




**1** Reboarding step



ECJ00743

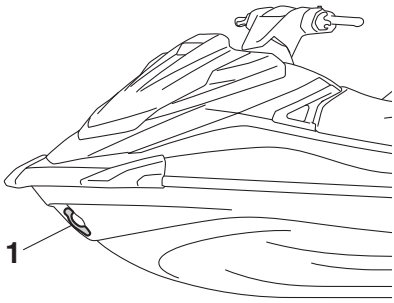
***NOTICE***

**Use the reboarding step only to board the watercraft in the water. Do not use the reboarding step for any other purpose. The watercraft can be damaged.**

EJU34873

## Bow eye

The bow eye is used to attach a rope to the watercraft when transporting, mooring, or towing it in an emergency. (See page 103 for information on towing the watercraft.)

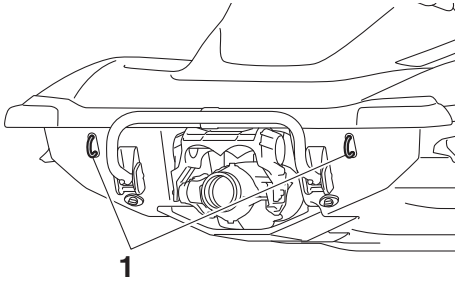



**1** Bow eye

EJU34882

## Stern eyes

The stern eyes are used to attach a rope to the watercraft when transporting or mooring it.



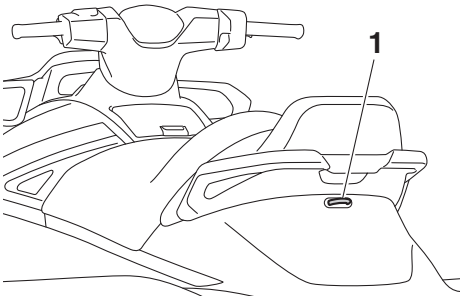

**1** Stern eye

EJU40422

## Cleat

The cleat is used to attach a ski rope to the watercraft when pulling a wakeboarder or water-skier. **WARNING! Do not use the cleat to lift the watercraft. The cleat is not designed to support the watercraft's weight. If the cleat breaks, the watercraft**

**could fall, which could result in severe injury.** [EWJ01511]




**1** Cleat

EJU35147

## Storage compartments

This watercraft is equipped with the following storage compartments.

Only the securely closed watertight storage compartment is waterproof. If you carry objects that must be kept dry, put them in a waterproof bag.

Make sure that the storage compartments are closed securely before operating the watercraft.

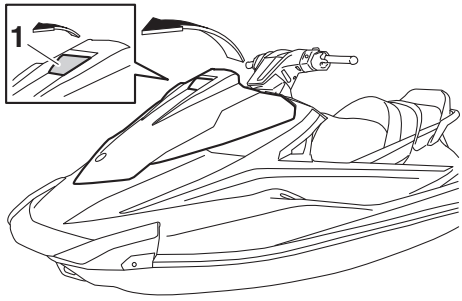
EJU43770

### Bow storage compartment

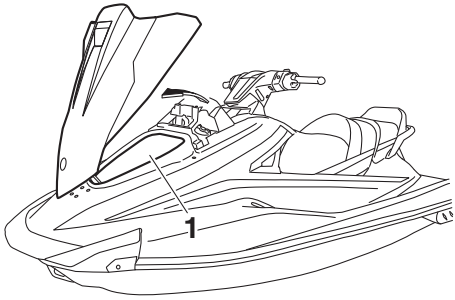
The bow storage compartment is located under the hood.

To open the bow storage compartment:

Pull the hood latch up, and then lift up the rear of the hood.



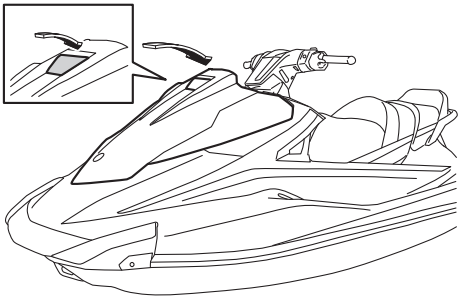

**1** Hood latch




**1** Bow storage compartment

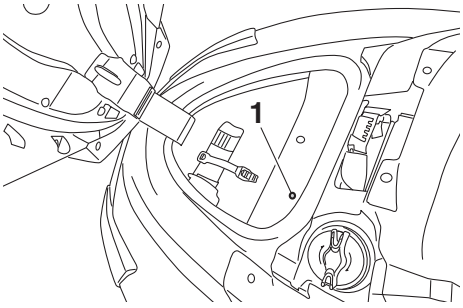
Bow storage compartment:
Capacity:
72.0 L (19.0 US gal, 15.8 Imp.gal)
Load limit:
5.0 kg (11 lb)

To close the bow storage compartment:
Return the hood to its original position, and then push the hood latch down to securely lock it in place.



To drain water from the bow storage compartment:

(1) Remove the drain plug on the bottom of the storage compartment to drain the water into the engine compartment.




**1** Drain plug

(2) Securely install the drain plug in its original position.

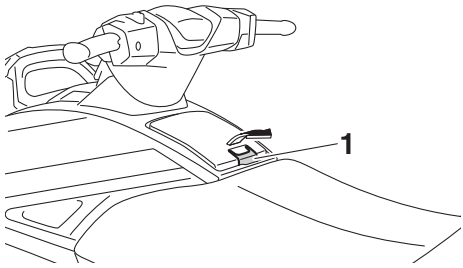
EJU43780

**Glove compartment**

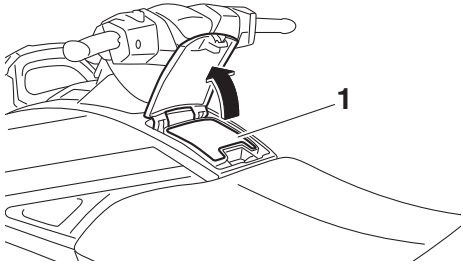
The glove compartment is located in front of the seat.

The glove compartment is removable.

To open the glove compartment:
Pull the glove compartment latch up, and then lift up the lid.



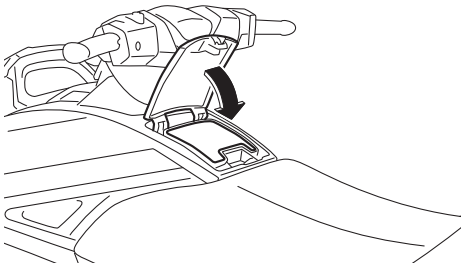

**1** Glove compartment latch



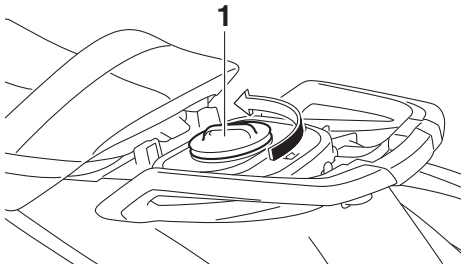

**1** Glove compartment

Glove compartment:
Capacity:
3.4 L (0.9 US gal, 0.7 Imp.gal)
Load limit:
1.5 kg (3 lb)

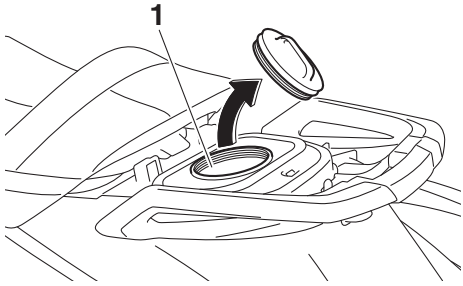
To close the glove compartment:
Push the lid down to securely lock it in place.



EJU37234
**Watertight storage compartment**
The watertight storage compartment is located under the rear seat.
The compartment is watertight when the cap is closed securely.
The watertight storage compartment is removable.
To open the watertight storage compartment:
(1) Remove the rear seat. (See page 50 for seat removal and installation procedures.)
(2) Loosen the cap and remove it.




**1** Watertight storage compartment cap




**1** Watertight storage compartment

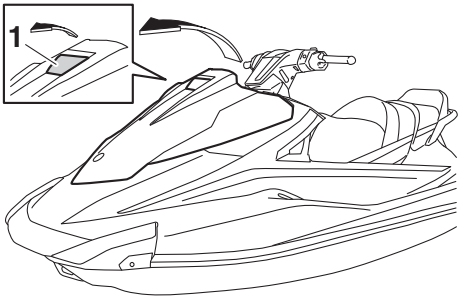
| |
|---|
| Watertight storage compartment:<br>Capacity:<br>5.8 L (1.5 US gal, 1.3 Imp.gal)<br>Load limit:<br>3.0 kg (7 lb) |

To close the watertight storage compartment:
(1) Securely install the cap by tightening it until it stops.
(2) Securely install the rear seat in its original position.

EJU43790
**Fire extinguisher holder and cover**
The fire extinguisher holder and cover are located in the bow storage compartment.

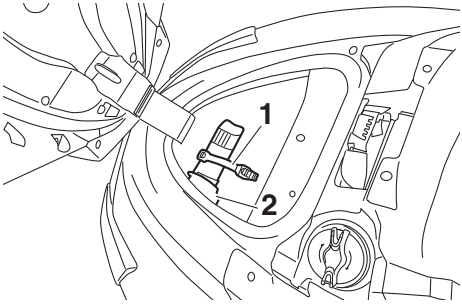
To use the fire extinguisher holder and cover:

(1) Pull the hood latch up, and then lift up the rear of the hood.




**1** Hood latch

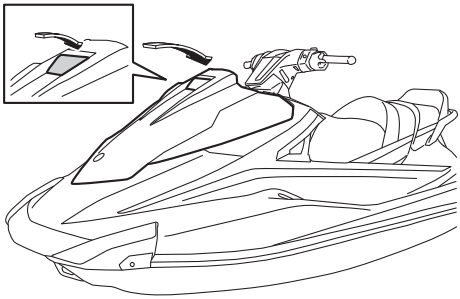
(2) Unhook the band and remove the fire extinguisher from the fire extinguisher cover.




**1** Band
**2** Fire extinguisher holder and cover

(3) Place the fire extinguisher in the fire extinguisher cover, and then securely fasten the fire extinguisher with the band.

(4) Return the hood to its original position, and then push the hood latch down to securely lock it in place. Make sure that the hood is securely closed before using the watercraft.



EJU31823

## Fuel requirements

EJU43641

### Fuel

EWJ00283

**⚠ WARNING**

- **Gasoline and gasoline vapors are extremely flammable. To avoid fires and explosions and to reduce the risk of injury when refueling, follow these instructions.**
- **Gasoline is poisonous and can cause injury or death. Handle gasoline with care. Never siphon gasoline by mouth. If you should swallow some gasoline, inhale a lot of gasoline vapor, or get some gasoline in your eyes, see your doctor immediately. If gasoline spills on your skin, wash with soap and water. If gasoline spills on your clothing, change your clothes.**

ECJ00322

***NOTICE***

- **Do not use leaded gasoline. Leaded gasoline can seriously damage the engine.**
- **Avoid getting water and contaminants in the fuel tank. Contaminated fuel can cause poor performance and engine damage. Use only fresh gasoline that has been stored in clean containers.**

Recommended fuel:
Regular unleaded gasoline with a minimum octane rating of
86
(Pump octane number) = (R + M)/2
90 (Research octane number)

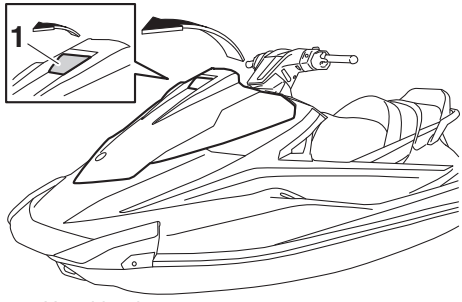
**Gasohol**

There are two types of gasohol: gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if ethanol content does not exceed 10% and the fuel meets the minimum octane ratings. E-85 is a fuel blend containing 85% ethanol and therefore must not be used in this watercraft. All ethanol blends containing more than 10% ethanol can cause fuel system damage or engine performance problems.

Yamaha does not recommend gasohol containing methanol because it can cause fuel system damage and engine performance problems.

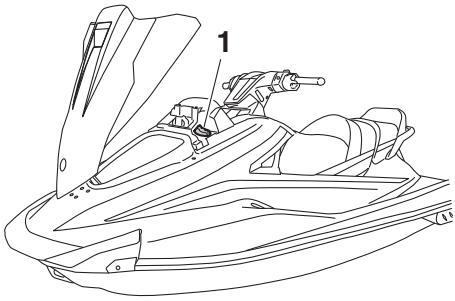
To fill the fuel tank:

(1) Before refueling, stop the engine. Do not stand or sit on the watercraft. Never refuel while smoking, or while in the vicinity of sparks, open flames, or other sources of ignition.
(2) Place the watercraft in a well-ventilated area and in a horizontal position.
(3) Remove the seats, and then check the fuel level. (See page 50 for seat removal and installation procedures.)
(4) Pull the hood latch up, and then lift up the rear of the hood.




**1** Hood latch

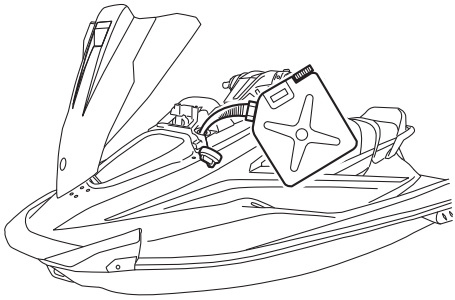
(5) Loosen the fuel filler cap and remove it.



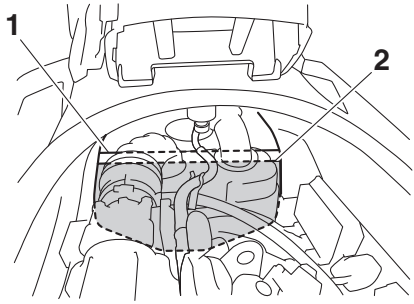

**1** Fuel filler cap

(6) Slowly add fuel to the fuel tank.

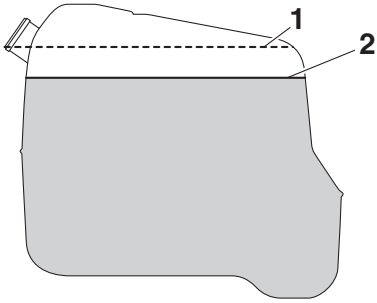
Fuel tank capacity:
70 L (18.5 US gal, 15.4 Imp.gal)



(7) Stop filling when the fuel level reaches approximately 50 mm (2 in) from the top of the fuel tank. Do not overfill the fuel tank. Because fuel expands when it heats up, heat from the engine or the sun can cause fuel to spill out of the fuel tank. Do not leave the watercraft with a full tank in direct sunlight.




**1** Top of the fuel tank
**2** Approximately 50 mm (2 in) from top of the fuel tank



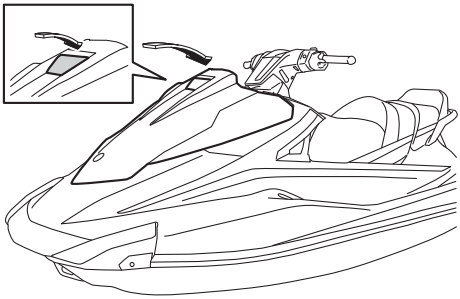

**1** Top of the fuel tank
**2** Approximately 50 mm (2 in) from top of the fuel tank

(8) Wipe up any spilled fuel immediately with a dry cloth.

(9) Securely install the fuel filler cap by tightening it until it clicks.

(10) Return the hood to its original position, and then push the hood latch down to securely lock it in place. Make sure that the fuel filler cap and the hood are se-

curely closed before using the watercraft.



(11) Securely install the seats in their original positions.

EJU40291

## Engine oil requirements

EJU43960

### Engine oil

ECJ00282

***NOTICE***

**Use only 4-stroke engine oil. Usage of 2-stroke engine oil could result in severe engine damage.**

Recommended engine oil:
YAMALUBE 4W
Recommended engine oil type:
SAE 10W-30, 10W-40, 20W-40, 20W-50
Recommended engine oil grade:
API SE,SF,SG,SH,SJ,SL

**Checking the engine oil level**

EWJ00341

**⚠ WARNING**

**Engine oil is extremely hot immediately after the engine is turned off. Coming in contact with or getting any engine oil on your clothes could result in burns.**

ECJ00392

***NOTICE***

- **Do not run the engine with too much or not enough oil in the oil tank, otherwise the engine could be damaged.**
- **Make sure that debris and water do not enter the oil tank filler hole. Debris and water in the engine oil can cause serious engine damage.**

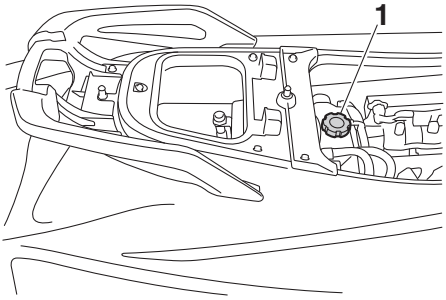
**TIP:**

- When checking the engine oil level on land, the engine must be running while water is being supplied to the cooling water passages. (See “Flushing the cooling water passages” on page 87 for information on supplying water.)

- When checking the engine oil level on water, moor the watercraft so that it will not drift away.

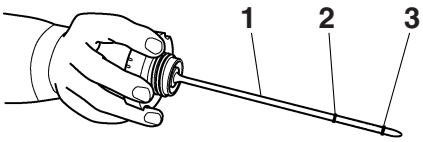
To check the engine oil level:

(1) With the engine stopped, place the watercraft in a precisely level position on land or launch the watercraft.
(2) Look in all directions, and then start the engine. (See page 76 for information on starting the engine.)
(3) Run the engine at idling speed for 6 minutes or more. Run the engine an additional 5 minutes if the ambient temperature is 20 °C (68 °F) or less.
(4) Stop the engine.
(5) Remove the seats. (See page 50 for seat removal and installation procedures.)
(6) Loosen the oil tank filler cap and remove it, and then wipe the attached dipstick clean.




**1** Oil tank filler cap/Dipstick

(7) Screw the oil tank filler cap into the filler hole until it stops. Remove the oil tank filler cap again and make sure that the engine oil level is between the minimum and maximum level marks.




**1** Dipstick
**2** Maximum level mark
**3** Minimum level mark

(8) If the engine oil level is significantly above the maximum level mark, consult a Yamaha dealer. If the engine oil level is below the minimum level mark, slowly add engine oil.
(9) Repeat steps 6–8 until the engine oil is at the proper level.
(10) Securely install the oil tank filler cap and turn it until it stops.
(11) Securely install the seats in their original positions.

EJU40022
## Draining the bilge water

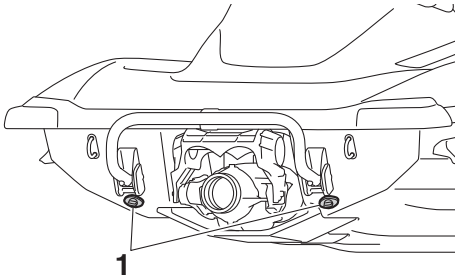
ECJ01302
***NOTICE***

**Do not run the engine at full throttle when bilge water remains in the engine compartment. The bilge water can splash into the engine, which can result in severe damage.**

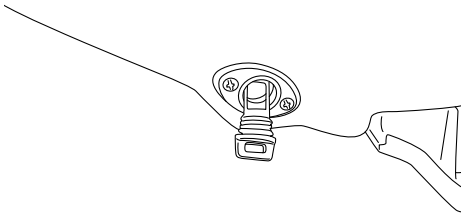
EJU40035
### Draining the bilge water on land

To drain the bilge water on land:

(1) Loosen the stern drain plugs and remove them.




**1** Stern drain plug



(2) Raise the bow of the watercraft, such as by placing the watercraft on a slope, to drain the bilge water from the engine compartment.

(3) After the bilge water has drained from the stern drain plug holes, wipe up any remaining moisture in the engine compartment with a dry cloth.

(4) Securely install the stern drain plugs by tightening them until they stop. ***NOTICE:*** **Before installing the stern drain plugs, clean the drain plug threads and the O-rings on the plugs to remove any foreign materials, such as dirt or sand. Otherwise, the stern drain plugs could be damaged, allowing water to enter the engine compartment. Check the O-rings on the stern drain plugs and make sure that the plugs are tightened securely before launching the watercraft. Otherwise, water may flood the engine compartment and cause the watercraft to submerge.** [ECJ00363]

EJU40535
### Draining the bilge water on water

A small quantity of bilge water will remain in the engine compartment even after the bilge water is drained on water. To completely drain the bilge water, remove the watercraft from the water and drain the bilge water on land.

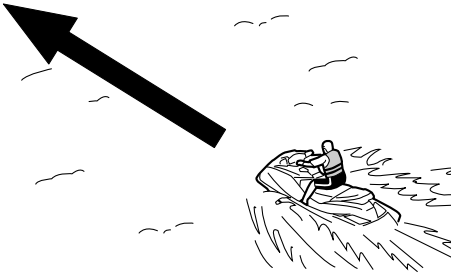
**Jet vacuum bilge draining system**

While the watercraft is operating, bilge water in the engine compartment is drawn in by the vacuum that is generated in the jet pump and discharged from the watercraft through the jet thrust nozzle.

To drain the bilge water on water:

Operate the watercraft as straight as possible and above planing speed for at least 2 minutes. ***NOTICE:*** **Do not run the engine at full throttle for at least 1 minute after the engine has been restarted. Bilge water in the engine compartment can splash into the**

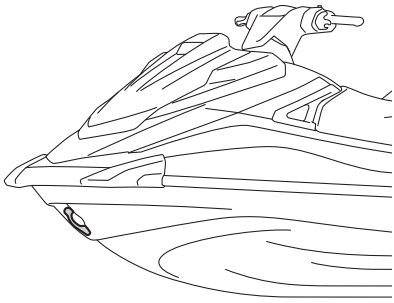
**engine, which can result in severe damage.** [ECJ00554]

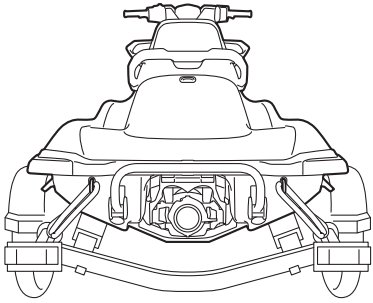


EJU42432

## Transporting on a trailer

When transporting the watercraft on a trailer, secure the tie downs to the trailer through the bow eye and stern eyes. ***NOTICE:*** **Do not attach ropes or tie downs to any part of the watercraft other than the bow eye and stern eyes to secure the watercraft to the trailer. Otherwise, the watercraft may be damaged. Wrap the ropes or tie downs with towels or rags where they touch the body of the watercraft to avoid scratches or damage.** [ECJ02150]





EJU32786

## Engine break-in

ECJ00432

***NOTICE***

**Failure to perform the engine break-in could result in reduced engine life or even severe engine damage.**

The engine break-in is essential to allow the various components of the engine to wear and polish themselves to the correct operating clearances. This ensures proper performance and promotes longer component life.

To perform the engine break-in:

(1) Check the engine oil level. (See page 59 for information on checking the engine oil level.)
(2) Launch the watercraft and start the engine. (See page 76 for information on starting the engine.)
(3) For the first 5 minutes, operate with the engine at idling speed.
(4) For the next 30 minutes, operate with the engine speed below 5000 r/min.
(5) For the next 1 hour, operate with the engine speed below 6500 r/min.

After the engine break-in is complete, the watercraft can be operated normally.

EJU31982

EWJ00412

**⚠ WARNING**

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

EJU41234

## Pre-operation checklist

Before using this watercraft, be sure to perform the checks in the following checklist.

| ITEM | ROUTINE | PAGE |
|---|---|---|
| **PRE-LAUNCH CHECKS** | | |
| **Engine compartment** | Ventilate the engine compartment.<br>Check inside the engine compartment for damage. | 66 |
| **Fuel system** | Check the fuel system for leakage.<br>Check the fuel level in the fuel tank. | 66 |
| **Water separator** | Check the water separator for water. | 66 |
| **Engine unit** | Check the exterior of the engine unit for damage. | 67 |
| **Engine oil level** | Check the engine oil level. | 67 |
| **Bilge water** | Check the engine compartment for bilge water. | 67 |
| **Battery** | Check the battery connections and electrolyte level. | 67 |
| **Steering system** | Check the steering system for proper operation. | 68 |
| **RiDE lever** | Check the RiDE lever for proper operation. | 69 |
| **Throttle lever** | Check the throttle lever for proper operation. | 69 |
| **Remote control transmitter (VX Deluxe / VX Cruiser)** | Check the remote control transmitter for proper operation. | 69 |
| **Engine shut-off cord (lanyard)** | Check the engine shut-off cord (lanyard) for damage. | 69 |
| **Switches** | Check the start switch, engine stop switch, and engine shut-off switch for proper operation. | 70 |
| **Storage compartments** | Check the storage compartments for damage and water. | 70 |
| **Fire extinguisher holder, cover, and band** | Check the fire extinguisher holder, cover, and band for damage. | 70 |
| **Fire extinguisher** | Check the condition of the fire extinguisher. | 71 |
| **Safety equipment** | Check that safety equipment meeting the applicable regulations is on board. | 71 |
| **Hull and deck** | Check the hull and deck for damage. | 71 |
| **Jet intake** | Check the jet intake for damage and clogging. | 71 |
| **Jet thrust nozzle and reverse gate** | Check the jet thrust nozzle and reverse gate for damage. | 71 |
| **Stern drain plugs** | Check the stern drain plugs for damage and foreign material and check that they are securely installed. | 71 |

# Pre-operation checks

| ITEM | ROUTINE | PAGE |
|---|---|---|
| **Hood** | Check that the hood is securely closed. | 72 |
| **Front and rear seats** | Check that the seats are securely installed. | 50 |
| **POST-LAUNCH CHECKS** | | |
| **Cooling water pilot outlet** | Check that water is discharged from the cooling water pilot outlet while the engine is running. | 72 |
| **Multifunction information center** | Check the multifunction information center for proper operation. | 72 |
| **Shift system** | Check the shift system for proper operation. | 73 |
| **Engine idling speed** | Check the engine idling speed. | 73 |

**TIP:**
To ensure safety and reliability, pre-operation checks should be made each time the watercraft is used.

EJU32282
## Pre-operation check points

EJU42382
### Pre-launch checks

Perform the pre-launch checks in the pre-operation checklist while the watercraft is on land.

To perform the pre-launch checks:

(1) Remove the seats and removable watertight storage compartment. (See page 50 for seat removal and installation procedures and page 55 for information on the removable watertight storage compartment.)
(2) Perform the checks and make sure that there are no malfunctioning items or other problems.
(3) After completing these checks, securely install the removable watertight storage compartment and seats in their original positions.

EJU32334
### Engine compartment check

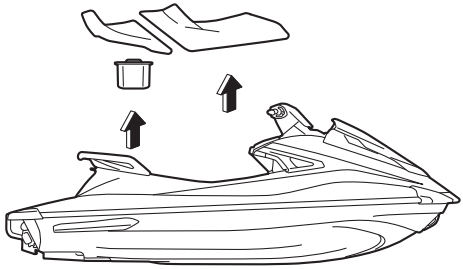
EWJ00462

**⚠ WARNING**

**Failure to ventilate the engine compartment could result in a fire or explosion. Do not start the engine if there is a fuel leak.**

Ventilate the engine compartment. Leave the engine compartment open for a few minutes to allow any fuel vapors to escape.

Make sure that there is no damage inside the engine compartment.



EJU34215
### Fuel system checks

EWJ00382

**⚠ WARNING**

**Leaking fuel can result in fire or explosion.**
- **Check for fuel leakage regularly.**
- **If any fuel leakage is found, the fuel system must be repaired by a qualified mechanic. Improper repairs can make the watercraft unsafe to operate.**

Make sure that there is no damage, leakage, or other problem in the fuel system.

**Check:**
- Fuel filler cap and seal for damage
- Fuel tank for damage and leakage
- Fuel hoses and joints for damage and leakage
- Fuel tank breather hose for damage and leakage

EJU36875
### Fuel level check

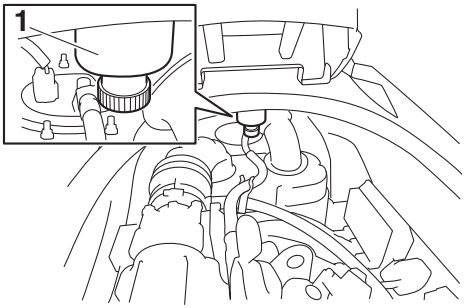
Check the fuel level in the fuel tank.

Add fuel if necessary. (See page 57 for information on filling the fuel tank.)

EJU32424
### Water separator check

Make sure that no water has collected in the water separator. If water has collected in the

water separator, drain it. (See page 35 for information on draining the water separator.)




**1** Water separator

EJU40182

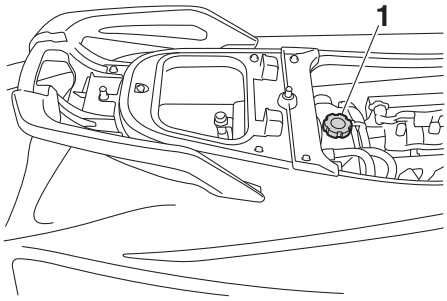
**Engine unit check**

Check the exterior of the engine unit for damage or other problem.

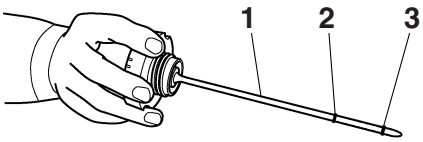
EJU41561

**Engine oil level check**

Make sure that the engine oil level is between the minimum and maximum level marks on the dipstick attached to the oil tank filler cap. (See page 59 for information on checking the engine oil level.)




**1** Oil tank filler cap/Dipstick




**1** Dipstick
**2** Maximum level mark
**3** Minimum level mark

EJU32456

**Bilge water check**

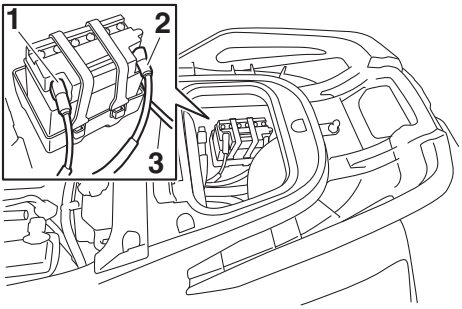
Make sure that no bilge water has collected in the engine compartment. If bilge water has collected in the engine compartment, drain it. (See page 61 for information on draining the bilge water.)

EJU32485

**Battery checks**

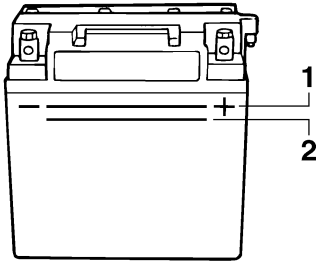
Make sure that the battery terminals and breather hose are not damaged and that the battery leads and breather hose are connected properly. **WARNING! Fire or explosion could result if the breather hose is dam-**

**aged, obstructed, or not connected properly.** [EWJ00452]




**1** Negative (–) battery terminal: Black lead
**2** Positive (+) battery terminal: Red lead
**3** Breather hose

Make sure that the electrolyte level is between the minimum and maximum level marks. **WARNING! Never operate the watercraft if the battery does not have sufficient power to start the engine or if it shows any other signs of decreased power. Loss of battery power may leave you stranded.** [EWJ01241]

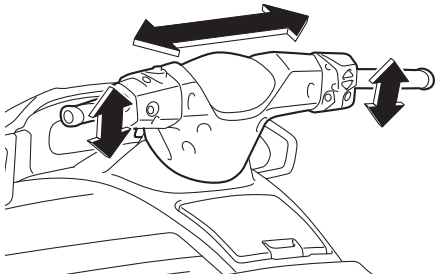



**1** Maximum level mark
**2** Minimum level mark

Make sure that the battery is securely held in place.

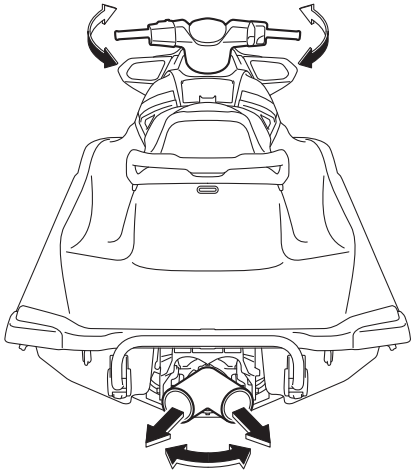
EJU32614
**Steering system checks**

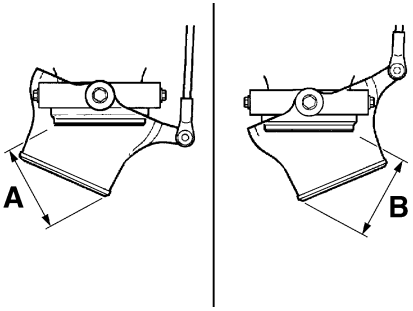
Turn the handlebars to the right and left several times to make sure that operation is smooth and unrestricted throughout the whole range, and that the free play is not excessive.



Turn the handlebars as far as possible to the right and left to make sure that the jet thrust nozzle moves as the handlebars are turned, and that there is no difference between the

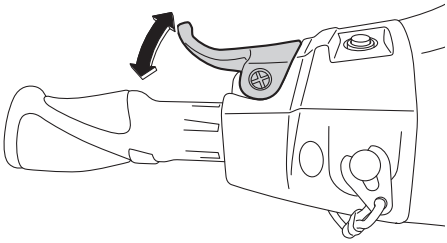
right and left fully turned positions of the jet thrust nozzle.



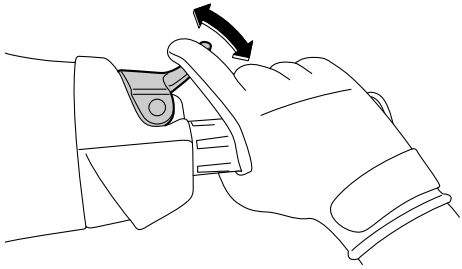



Difference between fully turned positions of jet thrust nozzle (distances A and B):
Maximum 5 mm (0.20 in)

EJU43212
**RiDE lever checks**
Operate the RiDE lever several times to make sure that operation is smooth throughout the whole range. Also, make sure that the RiDE lever returns automatically to its fully closed position when released.



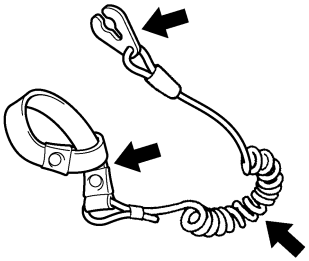
EJU42181
**Throttle lever checks**
Operate the throttle lever several times to make sure that operation is smooth throughout the whole range. Also, make sure that the throttle lever returns automatically to its fully closed (idle) position when released.



EJU40113
**Remote control transmitter check (VX Deluxe / VX Cruiser)**
Make sure that the remote control transmitter operates properly. (See page 32 for Yamaha Security System setting procedures and page 39 for Low RPM Mode activation procedures.)

EJU32664
**Engine shut-off cord (lanyard) check**
Make sure that the engine shut-off cord (lanyard) is not damaged. If the cord is damaged, replace it. **WARNING! Never try to repair the engine shut-off cord (lanyard) or tie it**

**together. The engine shut-off cord (lanyard) may not pull free when the operator falls off, allowing the watercraft to continue to run and cause an accident.** [EWJ01221]

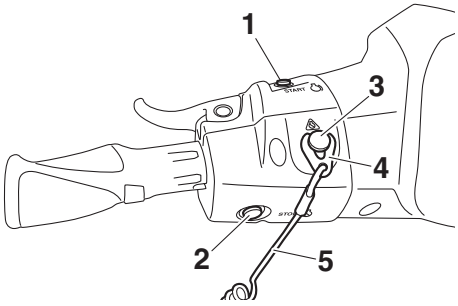


EJU32676
### Switch checks
ECJ01311

***NOTICE***

**Do not run the engine over 4000 r/min on land. Also, do not run the engine for more than 15 seconds without supplying water, otherwise the engine could overheat.**

Check the start switch, the engine stop switch, and the engine shut-off switch for proper operation. (See pages 33 to 33 for information on operating each switch.)




**1** Start switch
**2** Engine stop switch
**3** Engine shut-off switch
**4** Clip
**5** Engine shut-off cord (lanyard)

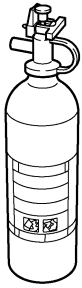
To check the operation of the switches:

(1) VX Deluxe / VX Cruiser: If the lock mode is selected for the Yamaha Security System setting, select the unlock mode. (See page 32 for Yamaha Security System setting procedures.)
(2) Push the start switch to make sure that the engine starts.
(3) As soon as the engine starts running, push the engine stop switch to make sure that the engine stops immediately.
(4) Restart the engine, and then pull the engine shut-off cord (lanyard) to remove the clip from the engine shut-off switch to make sure that the engine stops immediately.

EJU40102
### Storage compartment checks
Make sure that the storage compartments are not damaged and that water has not collected in the compartments. (See page 53 for information on the storage compartments.)

EJU43800
### Fire extinguisher holder, cover, and band checks
Make sure that the fire extinguisher holder, cover, and band are not damaged and that the fire extinguisher is securely held in place using the band. (See page 55 for information on the fire extinguisher holder, cover, and band.)

EJU32534
**Fire extinguisher check**
Check that there is a full fire extinguisher on board.

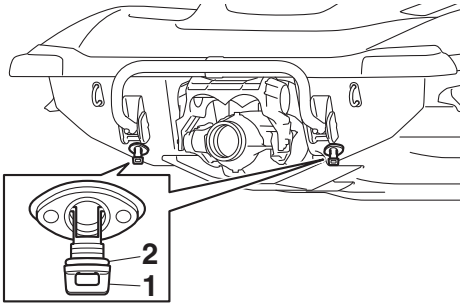


To check the fire extinguisher, see the instructions supplied by the fire extinguisher manufacturer. Always keep the fire extinguisher secured in the holder with its cover in place.
Always carry a fire extinguisher on board. A fire extinguisher is not standard equipment with this watercraft. If you do not have one, contact a Yamaha dealer or a fire extinguisher dealer to obtain one meeting the proper specifications.

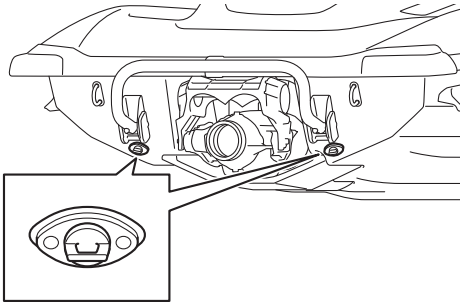
Fire extinguisher:
  Classification:
    B-1
  Capacity:
    2 lb or more

EJU40122
**Safety equipment check**
Check that safety equipment meeting the applicable regulations is on board.
EJU32353
**Hull and deck check**
Check the hull and deck for damage or other problem.
EJU32657
**Jet intake checks**
Make sure that the jet intake is not damaged or clogged with weeds or debris. If the jet intake is clogged, clean it. (See page 100 for information on the jet intake.)
EJU43220
**Jet thrust nozzle and reverse gate check**
Check the jet thrust nozzle and reverse gate for damage or other problem.
EJU32477
**Stern drain plug checks**
Loosen the stern drain plugs and remove them, and then make sure that the plugs and O-rings on the plugs are not damaged and that there is no foreign material on the threads or O-rings on the plugs. ***NOTICE:*** **Before installing the stern drain plugs, clean the drain plug threads and the O-rings on the plugs to remove any foreign materials, such as dirt or sand. Otherwise, the stern drain plugs could be damaged, allowing water to enter the engine compartment. Check the O-rings on the stern drain plugs and make sure that the plugs are tightened securely before launching the watercraft. Otherwise, water may flood the engine compartment and cause the watercraft to submerge.** [ECJ00363]

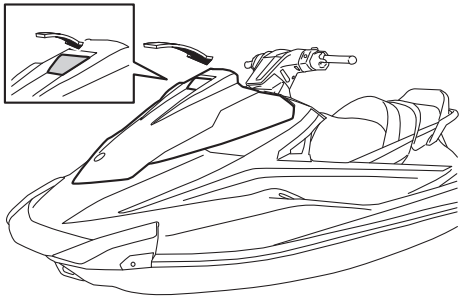
Securely install the stern drain plugs by tightening them until they stop.




**1** Stern drain plug
**2** O-ring



EJU43810
### Hood check
Push down the hood latch and make sure that it is securely closed.

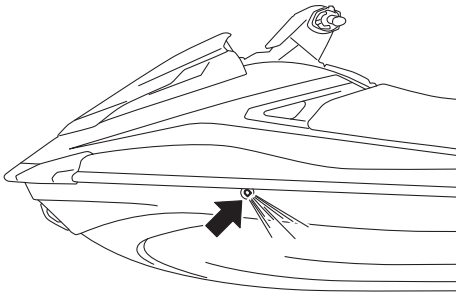


EJU40146
### Post-launch checks
Perform the post-launch checks in the pre-operation checklist while the watercraft is in the water and the engine is running.

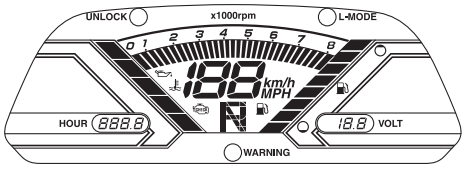
To perform the post-launch checks:

(1) Launch the watercraft. (See page 76 for information on launching the watercraft.)
(2) Perform the checks and make sure that there are no malfunctioning items or other problems.

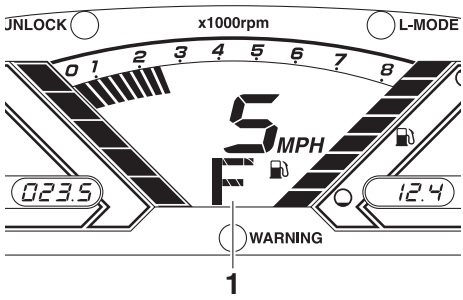
EJU40553
### Cooling water pilot outlet check
Make sure that water is discharged from the cooling water pilot outlet while the engine is running. (See page 35 for information on the cooling water pilot outlet.)



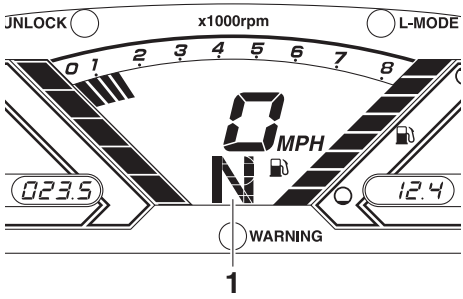
EJU32715
### Multifunction information center check
Make sure that the multifunction information center operates properly. (See page 44 for information on proper operation of the multifunction information center.)



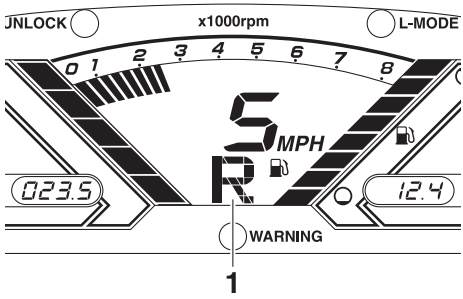
EJU43391
### Shift system check
Operate the throttle lever and RiDE lever, and check that the watercraft moves or does not move according to the displayed shift indicator. (See page 37 for shift system operation procedures.) **WARNING! To avoid collisions, operate at safe speeds and keep a safe distance away from people, objects, and other watercraft.** [EWJ01860]




**1** "F" (Forward position)




**1** "N" (Neutral position)




**1** "R" (Reverse position)

EJU40172
### Engine idling speed check
Start the engine and warm it up. Use the tachometer in the multifunction information center to make sure that the engine idling speed is not significantly above or below the specified range.

Engine idling speed:
1650 ±50 r/min

EJU32903
## Operating your watercraft

EWJ00511
**⚠ WARNING**

**Before operating your watercraft, become familiar with all of the controls. Consult a Yamaha dealer about any control or function that you do not fully understand. Failure to understand how the controls work could cause an accident or prevent you from avoiding an accident.**

EJU32956
### Getting to know your watercraft

Operating your watercraft requires skills acquired through practice over a period of time. Take the time to learn the basic techniques well before attempting more difficult maneuvers.

Operating your new watercraft can be a very enjoyable activity, providing you with hours of pleasure. However, it is essential to familiarize yourself with the operation of the watercraft to achieve the skill level necessary to enjoy riding safely.

Before operating this watercraft, read this owner's/operator's manual, the Riding Practice Guide, the Riding Instruction card, and all labels on the watercraft. Pay particular attention to the safety information beginning on page 10. Also, watch the Basic Orientation Video provided with your watercraft. These materials should give you an understanding of the watercraft and its operation.

Remember: This watercraft is designed to carry the operator and up to 2 passengers. Never exceed the maximum load limit or allow more than 3 persons (or 2 persons if a wakeboarder or water-skier is being pulled) to ride the watercraft at any time.

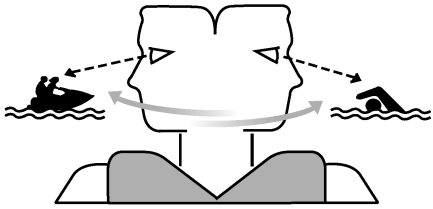
Maximum load:
240 kg (530 lb)
Load is the total weight of cargo, operator, and passengers.

EJU32996
### Learning to operate your watercraft

Before operating the watercraft, always perform the pre-operation checks listed on page 64. The short time spent checking the watercraft will reward you with added safety and reliability.

Check state and local laws before operating your watercraft.

Operate defensively at safe speeds and keep a safe distance away from people, objects, and other watercraft. Select a wide area to learn in, where there is good visibility and light boat traffic.



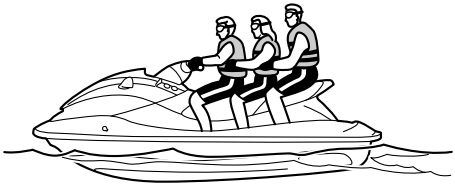
Use the buddy system—operate with someone nearby. Scan constantly for people, objects, and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.

You should grip the handlebars firmly and keep both feet on the floor of the footwell. Do not attempt to ride with passengers until your operating skills are fully developed.

EJU40212
## Riding position
### Operator riding position
The operator should grip the handlebars firmly with both hands and sit astride the seat with both feet on the floor of the footwell.



### Passenger riding position
The passenger(s) should hold on firmly, either to the person in front of them or to the handgrip provided, and sit astride the seat with their feet on the floor of the footwell. Never allow a passenger to ride in front of the operator. (See page 18 for information on the riding position when pulling a wakeboarder or water-skier.)

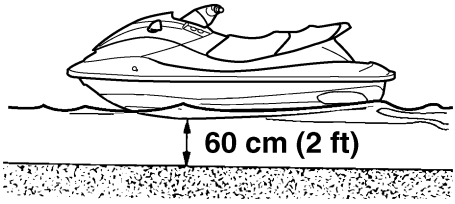


EJU32803
## Launching the watercraft
When launching the watercraft, make sure that there are no obstacles around you.
If the watercraft is launched from a trailer, someone should make sure that waves do not push the watercraft into the trailer.

EJU36346
## Starting the engine on water
EWJ01531
**⚠ WARNING**

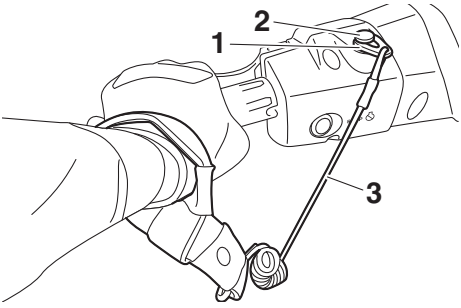
**Do not apply throttle when anyone is at the rear of the watercraft. Turn the engine off or keep it at idle. Water and debris exiting the jet thrust nozzle can cause severe injury.**

To start the engine:
(1) VX Deluxe / VX Cruiser: If the lock mode is selected for the Yamaha Security System setting, select the unlock mode. (See page 32 for Yamaha Security System setting procedures.)
(2) Move the watercraft to an area that is free from weeds and debris, and has a water depth of at least 60 cm (2 ft) from the bottom of the watercraft. ***NOTICE:*** **Never run the engine in water that is less than 60 cm (2 ft) deep from the bottom of the watercraft, otherwise pebbles or sand could be sucked into the jet intake, causing impeller damage and engine overheating.** [ECJ00473]



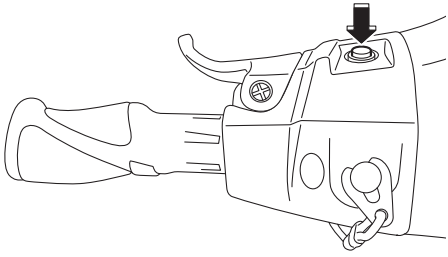

(3) Attach the engine shut-off cord (lanyard) to your left wrist, and then attach the clip to the engine shut-off switch. (See page 33 for information on operating the engine shut-off switch.) **WARNING! Check that the engine shut-off cord (lanyard)**

**is attached correctly. If the engine shut-off cord (lanyard) is not attached correctly, it may not pull free when the operator falls off, allowing the watercraft to continue to run and cause an accident.** [EWJ00582]

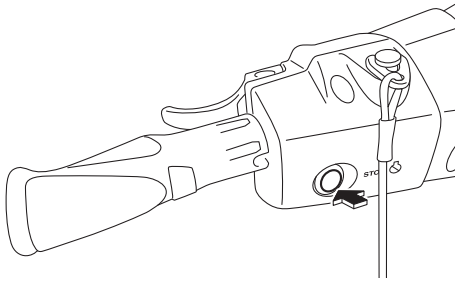



**1** Clip
**2** Engine shut-off switch
**3** Engine shut-off cord (lanyard)

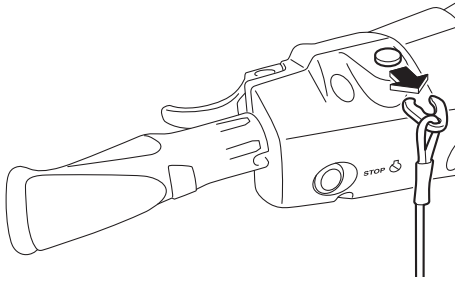
(4) With the throttle lever released, push the start switch (green button) to start the engine. (See page 33 for information on operating the start switch.)



EJU32863
### Stopping the engine
Release the throttle lever, and then push the engine stop switch (red button) to stop the engine. **WARNING! You need throttle to steer. Shutting the engine off can cause you to hit an obstacle you are attempting to avoid. A collision could result in severe injury or death.** [EWJ00602]

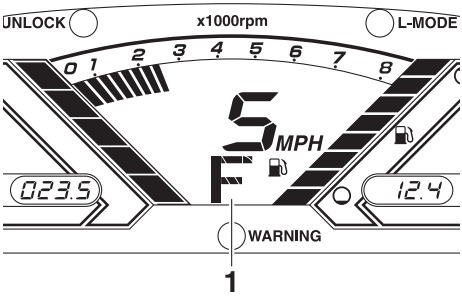


EJU32873
### Leaving the watercraft
If leaving the watercraft, remove the clip from the engine shut-off switch to prevent accidental starting or unauthorized operation by children or others.



EJU43410
### Operating the watercraft
When the throttle lever is squeezed, the “F” (forward) shift indicator will be displayed in the multifunction display and the watercraft will move forward. While the “F” (forward) shift indicator is displayed, the watercraft will move forward at trolling speed even if the throttle lever is in the fully closed (idle) posi-

tion. (See page 37 for shift system operation procedures.)




**1** "F" (Forward position)



EJU43421

## Turning the watercraft

EWJ01781

**⚠ WARNING**

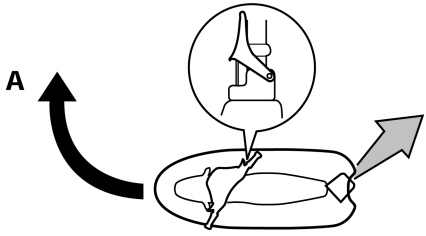
- **Do not release the throttle lever when trying to steer away from objects—you need throttle to steer. A collision could result in severe injury or death.**
- **When operating at higher speeds, make gradual turns or slow down before turning. Sharp high-speed turns may cause the watercraft to slide sideways or spin, throwing the operator and passenger(s) overboard, which could cause an injury.**
- **Take early action to avoid collisions. The RiDE system is not a braking device for avoiding dangerous situations.**

Steering control depends on the combination of handlebar position and the amount of throttle.

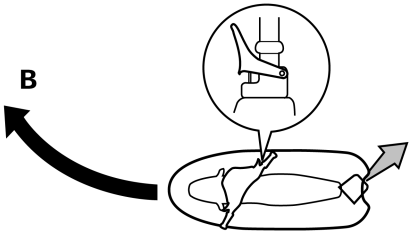
Water sucked in through the intake grate is pressurized by the impeller in the jet pump. As the pressurized water is expelled from the pump through the jet thrust nozzle, it creates thrust to move and steer the watercraft. The higher the engine speed, the more thrust produced.

The amount of jet thrust, in addition to the position of the handlebars, determines how sharply you turn.

A. More throttle produces higher thrust, so the watercraft will turn more sharply.

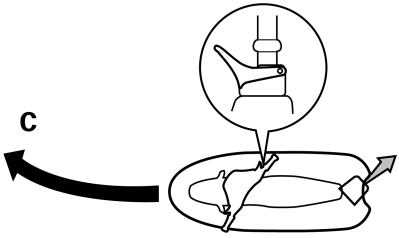



B. Less throttle produces lower thrust, so the watercraft will turn more gradually.

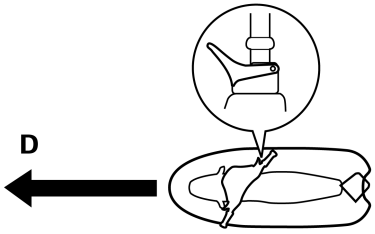



C. Releasing the throttle lever completely produces only minimum thrust. If you are traveling at speeds above trolling, you will have rapidly decreasing ability to

steer without throttle. You may still have some turning ability immediately after releasing the throttle lever, but once the engine slows down, the watercraft will no longer respond to handlebar input until you apply throttle again or you reach trolling speed.
At trolling speed, the watercraft can be turned gradually by handlebar position alone using just the amount of thrust available at idle.

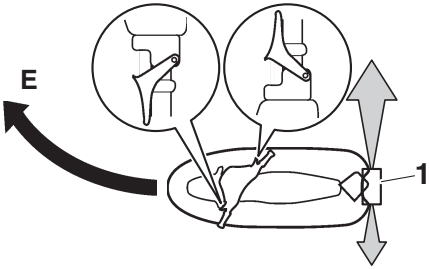



D. If the engine is stopped while riding, there is no thrust. The watercraft will go straight even though the handlebars are turned.




**You need throttle to steer.**

E. If the RiDE lever is squeezed and the handlebars are turned when the watercraft is cruising at planing speed, the watercraft will turn gradually while slowing down.



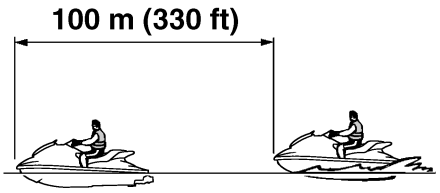

**1** Reverse gate

This model is equipped with the Yamaha Engine Management System (YEMS) that includes an off-throttle steering (OTS) system. It will activate at planing speeds should you attempt to steer the watercraft after releasing the throttle lever (see condition C above).
The OTS system assists in turning by continuing to supply some thrust while the watercraft is decelerating, but you can turn more sharply if you apply throttle while turning the handlebars. The OTS system does not function below planing speeds or when the engine is off. Once the engine slows down, the watercraft will no longer turn in response to handlebar input until you apply throttle again or you reach trolling speed.

EJU43251
### Stopping the watercraft

The watercraft is not equipped with a separate braking system. The watercraft slows down by water resistance or, when operating in reverse, by the water jet. The watercraft slows down as soon as the throttle lever is released, but will coast for a distance before fully stopping. If you are not sure you can stop in time before hitting an obstacle, apply throttle and turn in another direction.
From full speed, the watercraft comes to a complete stop due to water resistance in ap-

proximately 100m (330 ft) after the throttle lever is released or the engine is stopped, although this distance will vary depending on many factors, including gross weight, water surface conditions, and wind direction.




If the RiDE lever is squeezed to slow down, the stopping distance is approximately 30% shorter than when the RiDE lever is not used. However, this distance will vary depending on many factors, including gross weight, water surface conditions, and wind direction.

EWJ01791

**⚠ WARNING**

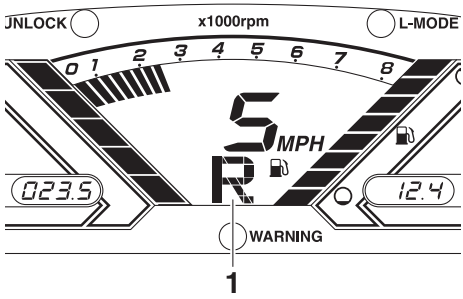
- **Allow adequate stopping distance.**
- **Take early action to avoid collisions. Remember, watercraft and other boats do not have brakes.**
- **Operate defensively at safe speeds and keep a safe distance away from people, objects, and other watercraft to give you time to stop.**
- **Do not shut the engine off when slowing down in case you need engine power to steer away from a boat or other obstacle that comes into your path.**
- **To avoid rear-end collisions while operating the watercraft, check behind you before using the RiDE lever to slow down or stop the watercraft.**

EJU43441

## Operating the watercraft in reverse or neutral

### Operating in reverse

When the RiDE lever is squeezed, the "R" (reverse) shift indicator will be displayed in the multifunction display and the watercraft will move in reverse. (See page 37 for shift system operation procedures.)




**1** "R" (Reverse position)



Make sure that there are no obstacles or people behind you before shifting into reverse.

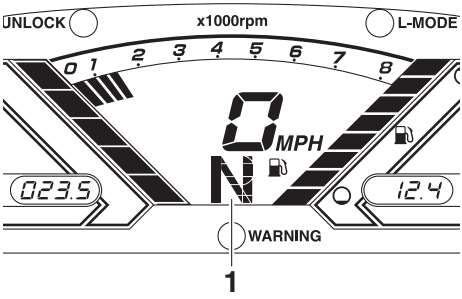
**TIP:**

This model is equipped with a function which limits the engine speed in reverse.

### Operating in neutral

When the RiDE lever is squeezed lightly and released, the "N" (neutral) shift indicator will be displayed in the multifunction display and the watercraft will stop in its current location.

(See page 37 for shift system operation procedures.)




**1** "N" (Neutral position)



**TIP:**
This model is equipped with a function which limits the engine speed in neutral.

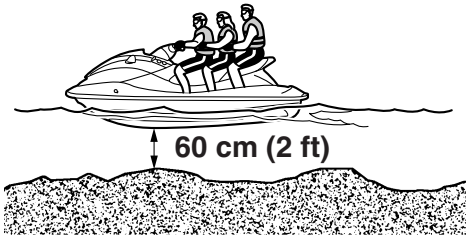
EJU36087
## Boarding the watercraft

EWJ01112
**⚠ WARNING**

**Be sure the operator and any passengers have practiced boarding from the water while still close to shore before riding. A person who has made many unsuccessful attempts to get back on the watercraft may become fatigued and suffer from exposure, increasing the risk of injury and drowning.**

Board the watercraft in water free from weeds and debris and at least 60 cm (2 ft) deep from the bottom of the watercraft.

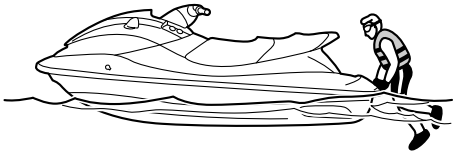
***NOTICE:*** **Never run the engine in water that is less than 60 cm (2 ft) deep from the bottom of the watercraft, otherwise pebbles or sand could be sucked into the jet intake, causing impeller damage and engine overheating.** [ECJ00473]



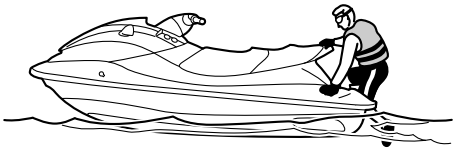

**TIP:**
VX Deluxe / VX Cruiser: This watercraft is equipped with a reboarding step, which can be lowered and used to assist in reboarding. (See page 51 for information on operating the reboarding step.)

EJU36354
### Boarding alone

(1) From the rear of the watercraft, place both hands on the boarding platform, pull yourself up, and then grasp the handgrip with one hand.



(2) Pull yourself up to a kneeling position on the boarding platform, and then move to the seat and sit astride.



(3) Attach the engine shut-off cord (lanyard) to your left wrist, and then attach the clip to the engine shut-off switch.
(4) Grip the handlebars with both hands and place both feet on the floor of the footwell.



(5) Look in all directions, start the engine, and then start off slowly.

EJU43260
**Boarding with passenger(s)**
EWJ01800

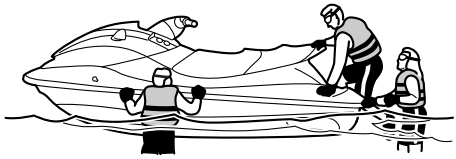
**⚠ WARNING**

- **Severe internal injuries can occur if water is forced into body cavities as a result of being near the jet thrust nozzle. Do not start the engine until the passengers are seated with their feet on the floor of the footwell and are securely holding on to the person in front of them or to the handgrip provided.**
- **Before boarding the watercraft, make sure that the engine is stopped. If the engine is running, the reverse gate may move down and a person boarding could be pinched.**

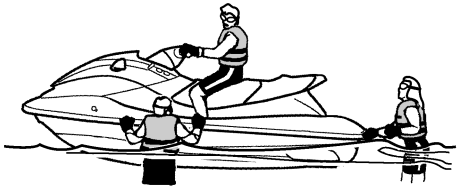
The heavier the total weight of the operator and passenger(s), the more difficult it will be to balance the watercraft. Do not operate the watercraft when the total weight exceeds 240 kg (530 lb) including any cargo.

To board with passenger(s):

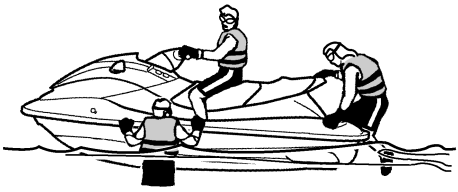
(1) Board as noted in the previous section "Boarding alone".



(2) Grip the handlebars with both hands and place both feet on the floor of the footwell.
(3) Have the first passenger move to the rear of the watercraft.



(4) Have the first passenger board using the same procedure as the operator, place their feet on the floor of the footwell, and securely hold on to the operator.



(5) Have the second passenger follow the same procedure. When the second passenger is boarding, try to balance the watercraft together with the first passenger.



(6) Make sure that the passenger(s) have their feet on the floor of the footwell and are securely holding on to the person in front of them or to the handgrip provided.



(7) Attach the engine shut-off cord (lanyard) to your left wrist, and then attach the clip to the engine shut-off switch.
(8) Look in all directions, start the engine, and then start off slowly.

EJU33083

## Starting off

EWJ00712

**⚠ WARNING**

**To avoid collisions:**

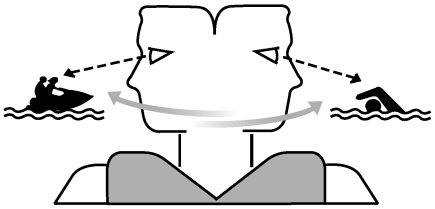
- **Scan constantly for people, objects, and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.**
- **Operate defensively at safe speeds and keep a safe distance away from people, objects, and other watercraft.**
- **Do not follow directly behind watercraft or other boats. Do not go near others to spray or splash them with water. Avoid sharp turns or other maneuvers that make it hard for others to avoid you or understand where you are going. Avoid areas with submerged objects or shallow water.**
- **Take early action to avoid collisions. Remember, watercraft and other boats do not have brakes. Do not release the throttle lever when trying to steer away**

**from objects—you need throttle to steer.**

ECJ01341

***NOTICE***

**Never run the engine in water that is less than 60 cm (2 ft) deep from the bottom of the watercraft, otherwise pebbles or sand could be sucked into the jet intake, causing impeller damage and engine overheating.**



EJU43271

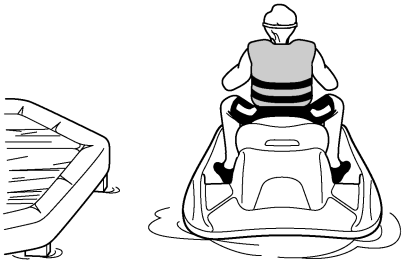
**Starting off from a trailer**

(1) Launch the watercraft.
(2) Attach the engine shut-off cord (lanyard) to your left wrist, and then attach the clip to the engine shut-off switch.
(3) Look in all directions, and then start the engine.
(4) Squeeze the RiDE lever and move the watercraft back slowly. (See page 37 for RiDE lever operation procedures.)

EJU33114

**Boarding and starting off from a dock**

(1) Board the watercraft from the side.
(2) Attach the engine shut-off cord (lanyard) to your left wrist, and then attach the clip to the engine shut-off switch.
(3) Push the watercraft away from the dock, grip the handlebars with both hands, and place both feet on the floor of the footwell.



(4) Look in all directions, start the engine, and then start off slowly.

EJU33236

**Capsized watercraft**

EWJ00672

**⚠ WARNING**

**Improper uprighting can cause injury.**

- **Be sure to shut the engine off by pulling on the engine shut-off cord (lanyard) to remove the clip from the engine shut-off switch.**
- **Do not put your hands in the intake grate.**

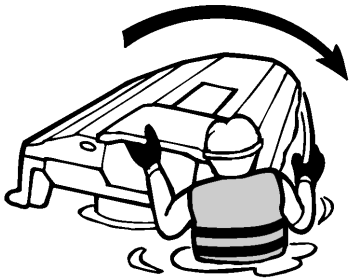
If the watercraft capsizes, turn it over immediately.

To upright the watercraft:

(1) Remove the clip from the engine shut-off switch.
(2) Swim to the rear of the watercraft. Turn the watercraft over clockwise by pulling on the ride plate with your left hand while pushing down on the gunwale with your right hand or foot.
If the port (left) side of the capsized watercraft is tilting up, push down on the gunwale so that the port (left) side is down before turning the watercraft clockwise. ***NOTICE:*** **Do not turn the watercraft over counterclockwise,**

**otherwise water can enter the engine, which can result in severe damage.**

[ECJ00542]





(3) Start the engine and operate the watercraft at planing speed to drain the bilge water from the engine compartment. (See page 61 for information on draining the bilge water. If the engine does not start, see "Towing the watercraft" on page 103 or "Submerged watercraft" on page 104.) ***NOTICE:*** **Do not run the engine at full throttle for at least 1 minute after the engine has been restarted. Bilge water in the engine compartment can splash into the engine, which can result in severe damage.**

[ECJ00554]

EJU43281

## Beaching and docking the watercraft

To beach the watercraft:

(1) Make sure that there are no boats, swimmers, or obstacles near the beach.

(2) Release the throttle lever to reduce speed about 100m (330 ft) before you reach the intended beaching area.

(3) Slowly approach the beach using the throttle lever and RiDE lever to control the watercraft speed.

(4) After reaching land, stop the engine, and then get off the watercraft and pull it up on the beach.

To dock the watercraft:

(1) Make sure that there are no boats, swimmers, or obstacles near the dock.

(2) Release the throttle lever to reduce speed about 100m (330 ft) away from the dock.

(3) Slowly approach the dock using the throttle lever and RiDE lever to control the watercraft speed.

(4) After coming alongside the dock, stop the engine, and then get off the watercraft.

EJU37194

## Operating in weeded areas

Always avoid using your watercraft in areas where weed growth is thick. If operating in weeded areas is unavoidable, alternately squeeze the throttle lever and relax your grip on the throttle lever to vary the engine speed. Weeds tend to become clogged more when operating at a steady speed and at trolling speed. If weeds may have clogged the intake area, clean the jet intake. (See page 100 for information on the jet intake.)

EJU40242

## After removing the watercraft from the water

ECJ01311

***NOTICE***

**Do not run the engine over 4000 r/min on land. Also, do not run the engine for more than 15 seconds without supplying water, otherwise the engine could overheat.**

After operating and removing the watercraft from the water, promptly discharge the remaining water from the cooling water passages.

To discharge water from the cooling water passages:

(1) Make sure that the area around the watercraft is clear, and then start the engine.
(2) Discharge the remaining water out of the cooling water passages by alternately squeezing and releasing the throttle lever quickly for 10 to 15 seconds.
(3) Stop the engine.

EJU37146

## Post-operation care

EWJ00331

**⚠ WARNING**

**Always place the watercraft upright in a horizontal position when storing it, otherwise fuel could leak out into the engine or engine compartment, which could create a fire hazard.**

After using the watercraft, always take it out of the water, clean it, and store it. Leaving the watercraft in the water for extended periods will accelerate the rate of normal deterioration of the jet pump and hull. Marine organisms and corrosion are some of the conditions that can shorten the life of many watercraft components.

EJU43651

### Flushing the cooling water passages

ECJ01311

***NOTICE***

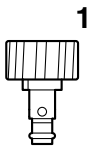
**Do not run the engine over 4000 r/min on land. Also, do not run the engine for more than 15 seconds without supplying water, otherwise the engine could overheat.**

Flush the cooling water passages to prevent them from clogging with salt, sand, or dirt.

(1) Place the watercraft in a horizontal position.

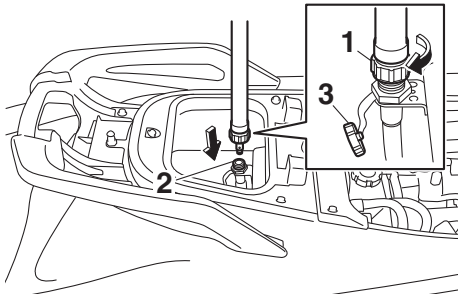
(2) Remove the seats and watertight storage compartment. (See page 50 for seat removal and installation procedures and page 55 for information on the watertight storage compartment.)

(3) Connect the garden hose adapter to a garden hose.




**1** Garden hose adapter

(4) Loosen the flushing hose connector cap and remove it. Insert the garden hose adapter into the flushing hose connector by pushing and twisting it until it is securely connected.

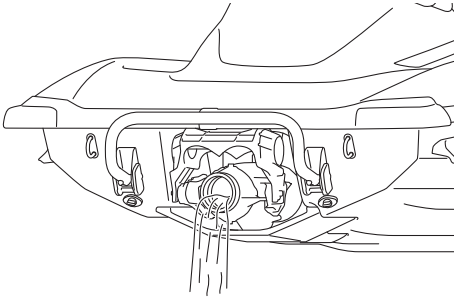



**1** Garden hose adapter
**2** Flushing hose connector
**3** Flushing hose connector cap

(5) Connect the garden hose to a water tap.

(6) Make sure that the area around the watercraft is clear, and then start the engine. Immediately after the engine starts, fully turn the water supply on so that wa-

ter flows out continually from the jet thrust nozzle.



(7) Run the engine at idling speed for about 3 minutes watching the engine condition. If the engine stops while flushing, turn the water supply off immediately and perform the procedure again from step 6.
***NOTICE:*** **Do not supply water to the cooling water passages when the engine is not running. The water could flow back through the muffler into the engine, causing severe engine damage.** [ECJ00123]
(8) Turn the water supply off.
(9) Discharge the remaining water out of the cooling water passages by alternately squeezing and releasing the throttle lever quickly for 10 to 15 seconds.
(10) Stop the engine.
(11) Remove the garden hose adapter, and then securely install the flushing hose connector cap by tightening it until it stops.
(12) Securely install the watertight storage compartment and seats in their original positions.

EJU43930
## Cleaning the watercraft

(1) Remove the seats. (See page 50 for seat removal and installation procedures.)
(2) If the watercraft will be stored for a week or more, rustproof the internal engine components to help prevent corrosion. (See page 91 for information on rustproofing the internal engine components.)
(3) Rinse the engine and engine compartment with a small amount of water.
***NOTICE:*** **Do not use high-pressure water when rinsing the engine or engine compartment as severe engine damage could result.** [ECJ00572]
(4) Drain the water from the engine compartment. (See page 61 for information on draining the bilge water.)
(5) Wipe the engine and engine compartment with a dry cloth.
(6) Wash down the hull, deck, and jet pump with fresh water.
(7) Wipe the hull, deck, and jet pump with a dry cloth.
(8) Wipe all vinyl and rubber components, such as the seats and engine compartment seals, with a vinyl protectant such as Yamaha Protectant.
(9) To minimize corrosion, spray metallic parts of the hull, deck, and engine with a rust inhibitor such as Yamaha Silicone Protectant and Lubricant.
(10) Allow the engine compartment to air dry completely before installing the seats.
(11) Securely install the seats in their original positions.

EJU41631
## Battery care

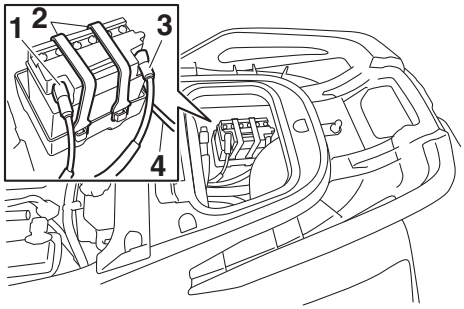
If the watercraft will not be used for more than a month, remove the battery from the watercraft, check it, and then store it in a cool, dry place.

EWJ00792
**⚠ WARNING**

**Battery electrolyte is poisonous and dangerous, causing severe burns, etc. Elec-**

**trolyte contains sulfuric acid. Avoid contact with skin, eyes, or clothing.**
**Antidotes**
**External: Flush with water.**
**Internal: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call a physician immediately.**
**Eyes: Flush with water for 15 minutes and get prompt medical attention.**
**Batteries produce explosive gases. Keep sparks, flames, cigarettes, etc., well away. If using or charging the battery in an enclosed space, make sure that it is well ventilated. Always shield your eyes when working near batteries.**
**Keep out of the reach of children.**

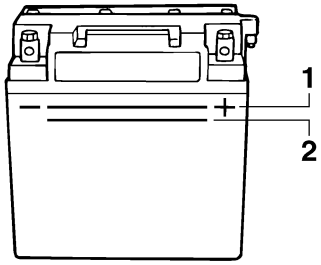
To remove the battery:
(1) Disconnect the negative (–) battery lead.
(2) Disconnect the positive (+) battery lead.
(3) Disconnect the breather hose.
(4) Unhook the battery bands, and then remove the battery from the watercraft.




**1** Negative (–) battery terminal: Black lead
**2** Battery band
**3** Positive (+) battery terminal: Red lead
**4** Breather hose

**Checking the battery**
- Make sure that the battery case is not damaged.
- Make sure that the battery terminals are not corroded or damaged.
- Make sure that the breather hose is not clogged or damaged.

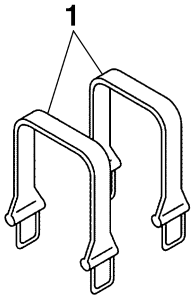
**Checking the electrolyte level**
Make sure that the electrolyte level is between the maximum and minimum level marks.
If the electrolyte level is low, add distilled water to raise it to the specified level. ***NOTICE:*** **Use only distilled water for replenishing the battery, otherwise battery life could be shortened.** [ECJ00242]




**1** Maximum level mark
**2** Minimum level mark

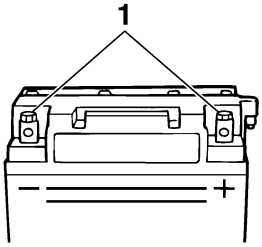
If distilled water was added, check the battery voltage.
It is recommended to have a Yamaha dealer check the battery voltage and charge the battery. If you charge the battery yourself, be sure to read and follow the instructions provided with the battery tester and charger you use. ***NOTICE:*** **Do not attempt to charge a battery hastily. Battery life could be shortened.** [ECJ00252]

**Checking the battery bands**
Make sure that the battery bands are not damaged.




**1** Battery band

To store the battery:
(1) Clean the battery case using fresh water.
(2) If the battery terminals are dirty or corroded, clean them using a wire brush.




**1** Battery terminal

(3) Apply YAMALUBE MARINE GREASE to the battery terminals.

| Recommended water-resistant grease: YAMALUBE MARINE GREASE |
|---|

(4) Store the battery in a cool, dry place. ***NOTICE:*** **Storing the battery in an uncharged condition can cause permanent battery damage. Check the battery periodically.** [ECJ00103]

To install the battery:
(1) Place the battery in the battery compartment and hook the battery bands onto the holders.
(2) Connect the positive (+) battery lead (red) to the positive (+) battery terminal. ***NOTICE:*** **Reversal of the battery leads will damage the electrical parts.** [ECJ00262]
(3) Connect the negative (–) battery lead (black) to the negative (–) battery terminal.
(4) Connect the breather hose to the battery. **WARNING! Fire or explosion could result if the breather hose is damaged, obstructed, or not connected properly.** [EWJ00452]
(5) Make sure that the battery is securely held in place.

EJU33493

## Long-term storage

EWJ00331

**⚠ WARNING**

**Always place the watercraft upright in a horizontal position when storing it, otherwise fuel could leak out into the engine or engine compartment, which could create a fire hazard.**

Storage for long periods of time, such as winter storage, requires preventive maintenance to ensure against deterioration. It is advisable to have the watercraft serviced by a Yamaha dealer prior to storage.

However, the following procedures can be performed easily by the owner.

EJU40253

### Cleaning

(1) Flush the cooling water passages. (See page 87 for information on flushing the cooling water passages.)

**TIP:**

If you will be storing the watercraft for a prolonged period, such as winter storage, top off the fuel tank with fresh gasoline and add one ounce of Yamaha Fuel Stabilizer and Conditioner to each gallon of fuel in the fuel tank before starting the engine.

(2) Clean the watercraft. (See page 88 for information on cleaning the watercraft.)
Wax the hull with a non-abrasive wax such as Yamaha Silicone Wax.

EJU43670

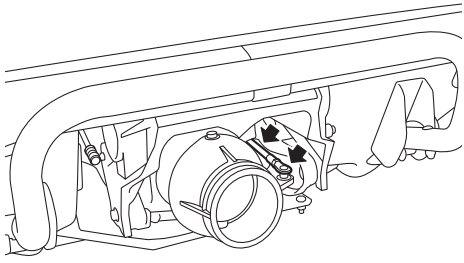
### Lubrication

Use a Yamaha Power Cable Luber and spray Yamaha Lube-Zall between the inner and outer cables to lubricate the cables and purge out any dirt and moisture.

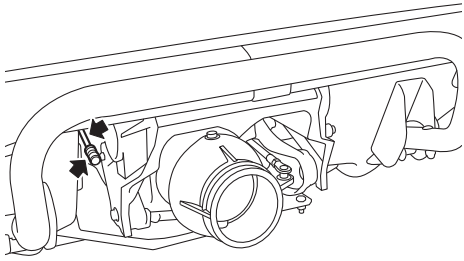
To keep moving parts sliding or rotating smoothly, lubricate them with water-resistant grease.

Recommended water-resistant grease:
YAMALUBE MARINE GREASE

- Steering cable (jet thrust nozzle end)



- Shift rod (reverse gate end)



EJU43940

### Rustproofing

**Rustproofing the hull, deck, and engine**

Spray metallic parts of the hull, deck, and engine with a rust inhibitor such as Yamaha Silicone Protectant and Lubricant.

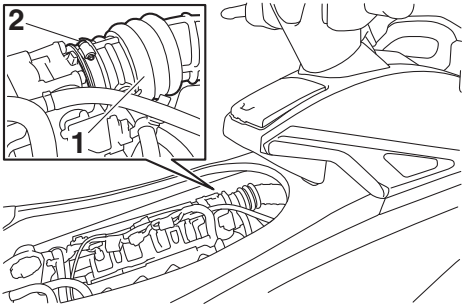
**Rustproofing the internal engine components**

Rustproof the internal engine components with a rust inhibitor such as Yamaha Stor-Rite Engine Fogging Oil.

To rustproof the internal engine components:

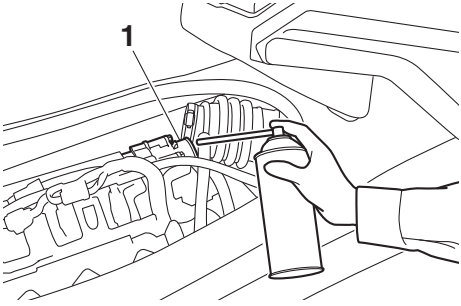
(1) Remove the seats. (See page 50 for seat removal and installation procedures.)

(2) Loosen the clamp screw and disconnect the air intake duct.




**1** Air intake duct
**2** Clamp screw

(3) Spray a rust inhibitor such as Yamaha Stor-Rite Engine Fogging Oil into the intake opening for 3 seconds. **WARNING! Do not spray flammable rust inhibitor products on engine surfaces while the engine is hot. The sprayed substance or propellants could catch fire.** [EWJ00262]

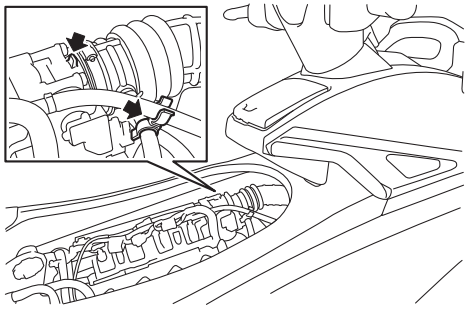



**1** Intake opening

(4) Connect the air intake duct and securely tighten the clamp screw.

**TIP:**

- Confirm that the air intake duct is inserted until it touches the protrusion.
- After tightening the clamp screw, confirm that the hose holder is attached in its original position.



(5) Make sure that the area around the watercraft is clear, and then start the engine in a well-ventilated area and let it run at idle for 15 seconds. (See page 33 for information on starting the engine.)
(6) Stop the engine.
(7) Securely install the seats in their original positions.

EJU33758

## Maintenance

Periodic checks and lubrication will keep your watercraft in the safest and most efficient condition possible. Therefore, make sure to carry out the periodic maintenance. Safety is an obligation of the watercraft owner. Proper maintenance must be carried out to keep the exhaust emission and sound levels within the regulated limits. The most important points of watercraft inspection and lubrication are explained on the following pages.

See a Yamaha dealer for genuine Yamaha replacement parts and optional accessories designed for your watercraft.

Remember, failures that are the result of the installation of parts or accessories which are not qualitatively equivalent to genuine Yamaha parts are not covered by the limited warranty.

**Maintenance, replacement, or repair of the emission control devices and system may be performed by any marine SI engine repair establishment or individual. Warranty repair, however, must be performed at an authorized Yamaha marine dealership.**

EWJ00312

**⚠ WARNING**

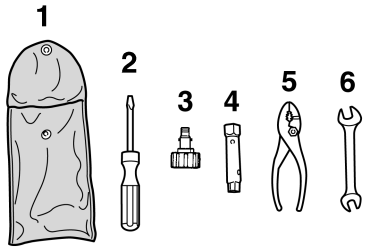
**Be sure to turn off the engine when you perform maintenance unless otherwise specified. If you are not familiar with machine servicing, this work should be done by a Yamaha dealer or other qualified mechanic.**

A service manual is available for purchase through a Yamaha dealer for owners who have the mechanical skills, tools, and other equipment necessary to perform maintenance not covered by this owner's/operator's manual.

EJU33803

### Tool kit

A tool kit is included with this watercraft. Place the tool kit in a waterproof bag and always carry it with you whenever you use the watercraft.




**1** Tool bag
**2** Screwdriver
**3** Garden hose adapter
**4** 10/12 mm box wrench
**5** Pliers
**6** 10/12 mm open-end wrench

EJU43101
## Periodic maintenance chart

The periodic maintenance chart gives general guidelines for periodic maintenance. Have a Yamaha dealer perform the checks in the following chart. However, maintenance may need to be performed more frequently depending on your operating conditions. If you have any questions, consult a Yamaha dealer.

This "√" mark indicates items to be checked and serviced by a Yamaha dealer.

| Item | Operation | Initial | Thereafter every | | | Page |
|---|---|---|---|---|---|---|
| | | 10 hours | 50 hours or 12 months *1 | 100 hours or 12 months *1 | 200 hours or 24 months *1 | |
| **Fuel line** | Check fuel hoses and clamps | | | √ | | — |
| **Fuel filler cap/Water separator** | Check O-rings for cracks and deformation | | | √ | | — |
| **Fuel tank** | Check installation and straps | | | √ | | — |
| **Water inlet strainer** | Check for clogs and damage | | | √ | | — |
| **Cooling water hoses** | Check for damage and leakage, and check clamps | | | √ | | — |
| **Engine oil** | Replace | √ | | √ | | 95 |
| **Oil filter** | Replace | | | √ | | 95 |
| **Intermediate housing** | Lubricate | | | √ | | — |
| **Spark plugs** | Check | √ | | √ | | — |
| **Battery** | Check specific gravity of electrolyte, terminals, bands, and breather hose | | | √ | | — |
| **Battery leads** | Check terminals | | | √ | | — |
| **Steering master** | Check operation and for looseness | √ | | √ | | — |
| **Steering cable** | Check exterior and connections, and lubricate | | | √ | | — |
| **Shift rod and reverse gate** | Check exterior and connections, and lubricate | | | √ | | — |
| **Air filter element** | Check for damage and dirt | | | √ | | — |
| **Air intake hoses** | Check for damage, and check clamps | | | √ | | — |
| **Throttle body** | Lubricate throttle valves | | | √ | | — |

| Item | Operation | Initial | Thereafter every | | | Page |
|---|---|---|---|---|---|---|
| | | 10 hours | 50 hours or 12 months *1 | 100 hours or 12 months *1 | 200 hours or 24 months *1 | |
| **Exhaust system** | Check for exhaust leakage, and check hoses and clamps | | | √ | | — |
| **Breather hose** | Check breather hose and clamps | | | √ | | — |
| **Impeller** | Check for bends, damage, and foreign material | | | √ | | — |
| **Jet thrust nozzle** | Check movement, and lubricate | | | √ | | — |
| **Jet vacuum bilge** | Check hoses for clogs and damage, check clamps, and clean bilge strainer | | | √ | | — |
| **Stern drain plugs** | Check O-rings | | | √ | | — |
| **Anode** | Check for corrosion, and clean | | | | √ *2 | — |
| **Valve clearance** | Check and adjust | | | | √ *2 | — |
| **Rubber coupling** | Check for cracks, indentations, looseness, and noise | | | | √ | — |
| **Engine mount** | Check for damage and peeling | | | | √ | — |

*1: Whichever comes first.

*2: Check every 200 hours.

Perform the pre-operation checks and post-operation checks before performing periodic maintenance.

EJU36943

## Engine oil and oil filter

EWJ00341

**⚠ WARNING**

**Engine oil is extremely hot immediately after the engine is turned off. Coming in contact with or getting any engine oil on your clothes could result in burns.**

ECJ00992

***NOTICE***

**Do not run the engine with too much or not enough oil in the engine, otherwise the engine could be damaged.**

It is recommended to have a Yamaha dealer change the engine oil and the engine oil filter. However, if you choose to change the oil and filter on your own, consult a Yamaha dealer.

EJU34543

# Specifications

**Watercraft capacity:**
- Maximum people on board:
  - 3 person
- Maximum load capacity:
  - 240 kg (530 lb)

**Dimensions:**
- Length:
  - VX 3340 mm (131.5 in)
  - VX Deluxe 3350 mm (131.9 in)
  - VX Cruiser 3350 mm (131.9 in)
- Width:
  - 1220 mm (48.0 in)
- Height:
  - 1190 mm (46.9 in)
- Dry weight:
  - VX 349 kg (769 lb)
  - VX Deluxe 329 kg (725 lb)
  - VX Cruiser 331 kg (730 lb)

**Performance:**
- Maximum fuel consumption:
  - 30.4 L/h (8.0 US gal/h, 6.7 Imp.gal/h)
- Cruising range at full throttle:
  - 2.30 hour
- Trolling speed:
  - 1650 ±50 r/min

**Engine:**
- Engine type:
  - Liquid cooled 4-stroke, DOHC
- Number of cylinders:
  - 4
- Engine displacement:
  - 1052 $cm^3$
- Bore × stroke:
  - 76.0 × 58.0 mm (2.99 × 2.28 in)
- Compression ratio:
  - 11.4 : 1
- Valve clearance-intake (cold):
  - 0.11–0.20 mm (0.0043–0.0079 in)
- Valve clearance-exhaust (cold):
  - 0.25–0.34 mm (0.0098–0.0134 in)
- Lubrication system:
  - Dry sump
- Cooling system:
  - Water
- Starting system:
  - Electric
- Ignition system:
  - T.C.I.
- Spark plug:
  - CR9EB
- Spark plug gap:
  - 0.7–0.8 mm (0.028–0.031 in)
- Battery capacity:
  - 12 V, 19 Ah
- Charging system:
  - Flywheel magneto

**Drive unit:**
- Propulsion system:
  - Jet pump
- Jet pump type:
  - Axial flow, single stage
- Impeller rotation:
  - Counterclockwise
- Jet thrust nozzle angle:
  - 24.0+24.0 °

**Fuel and oil:**
- Recommended fuel:
  - Regular unleaded gasoline
- Minimum octane rating (PON):
  - 86
- Minimum octane rating (RON):
  - 90
- Recommended engine oil type SAE:
  - SAE 10W-30, 10W-40, 20W-40, 20W-50
- Recommended engine oil grade API:
  - API SE,SF,SG,SH,SJ,SL
- Fuel tank total capacity:
  - 70 L (18.5 US gal, 15.4 Imp.gal)
- Engine oil quantity with oil filter replacement:
  - 2.2 L (2.33 US qt, 1.94 Imp.qt)
- Engine oil quantity without oil filter replacement:
  - 2.0 L (2.11 US qt, 1.76 Imp.qt)
- Engine oil total quantity:
  - 4.3 L (4.55 US qt, 3.78 Imp.qt)

EJU34562

## Troubleshooting

If you have any trouble with your watercraft, use the troubleshooting chart to check for the possible cause.

If you cannot find the cause, consult a Yamaha dealer.

EJU43512

### Troubleshooting chart

Confirm the possible cause and remedy, and then refer to the applicable page.

| TROUBLE | POSSIBLE CAUSE | | REMEDY | PAGE |
|---|---|---|---|---|
| **Engine does not start (Starter motor does not turn over)** | Yamaha Security System (VX Deluxe / VX Cruiser) | Lock mode selected | Select unlock mode | 32 |
| | Engine shut-off switch | Clip not in place | Install clip | 33 |
| | Fuse | Burned out | Replace fuse and check wiring | 102 |
| | Battery | Run down | Recharge | 88 |
| | | Poor terminal connections | Tighten as required | 88 |
| | | Terminal corroded | Clean or replace | 88 |
| | Starter motor | Faulty | Have serviced by Yamaha dealer | — |
| **Engine does not start (Starter motor turns over)** | Throttle lever | Squeezed | Release | 33 |
| | | Faulty | Have serviced by Yamaha dealer | — |
| | RiDE lever | Squeezed | Release | 33 |
| | | Faulty | Have serviced by Yamaha dealer | — |
| | Fuel | Fuel tank empty | Refill as soon as possible | 57 |
| | | Stale or contaminated | Have serviced by Yamaha dealer | — |
| | Fuel tank | Water or dirt present | Have serviced by Yamaha dealer | — |
| | Spark plug | Fouled or defective | Have serviced by Yamaha dealer | — |
| | Spark plug cap | Not connected or loose | Have serviced by Yamaha dealer | — |
| | | Connected to wrong cylinder | Have serviced by Yamaha dealer | — |
| | Fuel injection system | Fuel pump faulty | Have serviced by Yamaha dealer | — |

| TROUBLE | POSSIBLE CAUSE | | REMEDY | PAGE |
|---|---|---|---|---|
| **Engine runs irregularly or stalls** | Fuel | Fuel tank empty | Refill as soon as possible | 57 |
| | | Stale or contaminated | Have serviced by Yamaha dealer | — |
| | Fuel tank | Water or dirt present | Have serviced by Yamaha dealer | — |
| | Spark plug | Fouled or defective | Have serviced by Yamaha dealer | — |
| | | Incorrect heat range | Have serviced by Yamaha dealer | — |
| | | Gap incorrect | Have serviced by Yamaha dealer | — |
| | Spark plug cap | Not connected or loose | Have serviced by Yamaha dealer | — |
| | | Cracked, torn, or damaged | Have serviced by Yamaha dealer | — |
| | Electrical wiring | Loose connection | Have serviced by Yamaha dealer | — |
| | Fuel injection system | Faulty or clogged injectors | Have serviced by Yamaha dealer | — |
| **Warning light or indicator blinks or comes on** | Fuel level warning | Fuel tank empty | Refill as soon as possible | 57 |
| | Oil pressure warning | Oil pressure dropped | Have serviced by Yamaha dealer | 47 |
| | Engine overheat warning | Jet intake clogged | Clean | 100 |
| | Check engine warning | Faulty sensors | Have serviced by Yamaha dealer | 48 |

# Trouble recovery

| TROUBLE | POSSIBLE CAUSE | | REMEDY | PAGE |
|---|---|---|---|---|
| **Watercraft slow or loses power** | Watercraft operation mode (VX Deluxe / VX Cruiser) | Low RPM Mode activated | Deactivate Low RPM Mode | 39 |
| | Cavitation | Jet intake clogged | Clean | 100 |
| | | Impeller damaged or worn | Have serviced by Yamaha dealer | 100 |
| | Engine overheat warning | Engine speed reduction control activated | Clean jet intake and cool engine | 47 |
| | Oil pressure warning | Engine speed reduction control activated | Add oil | 47 |
| | Spark plug | Fouled or defective | Have serviced by Yamaha dealer | — |
| | | Incorrect heat range | Have serviced by Yamaha dealer | — |
| | | Gap incorrect | Have serviced by Yamaha dealer | — |
| | Spark plug cap | Not connected or loose | Have serviced by Yamaha dealer | — |
| | Electrical wiring | Loose connection | Have serviced by Yamaha dealer | — |
| | Fuel | Stale or contaminated | Have serviced by Yamaha dealer | — |
| | Air filter | Clogged | Have serviced by Yamaha dealer | — |
| | | Oil buildup | Have serviced by Yamaha dealer | — |
| | Throttle lever | Faulty | Have serviced by Yamaha dealer | — |

EJU34625

## Emergency procedures

EJU34635

### Cleaning the jet intake and impeller

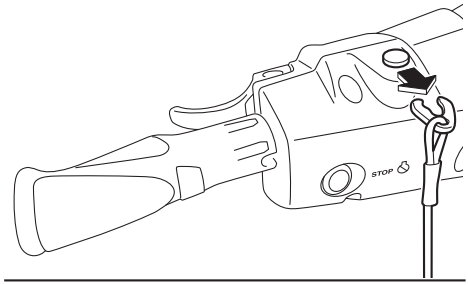
EWJ00783

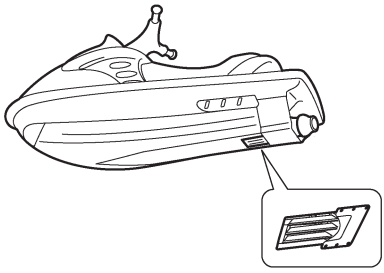
**⚠ WARNING**

**Before attempting to remove weeds or debris from the jet intake or impeller area, shut the engine off and remove the clip from the engine shut-off switch. Severe injury or death could result from coming in contact with the rotating parts of the jet pump.**

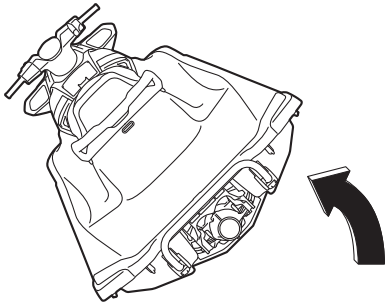
If weeds or debris gets caught in the jet intake or impeller, cavitation can occur, causing jet thrust to decrease even though engine speed rises. If this condition is allowed to continue, the engine will overheat and may seize. ***NOTICE:*** **If weeds or debris gets caught in the jet intake, do not operate the watercraft above trolling speed until they have been removed.** [ECJ00654]

If there is any sign that the jet intake or impeller is clogged with weeds or debris, return to shore and check the intake and impeller. Always stop the engine before beaching the watercraft.



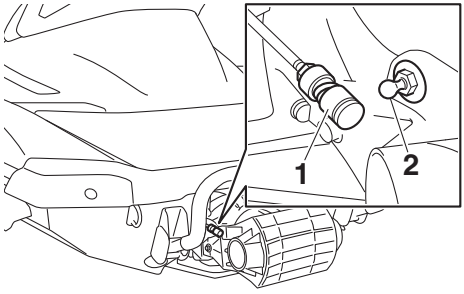
(1) Place a suitable clean cloth or carpeting underneath the watercraft to protect it from abrasions and scratches. Turn the watercraft on its side as shown. ***NOTICE:*** **Always turn the watercraft over onto its port (left) side. When turning the watercraft on its side, support the bow so that the handlebars are not bent or damaged.** [ECJ00662]



(2) Remove any weeds or debris from around the jet intake, drive shaft, impeller, jet pump housing, and jet thrust nozzle.
If debris is difficult to remove, consult a Yamaha dealer.

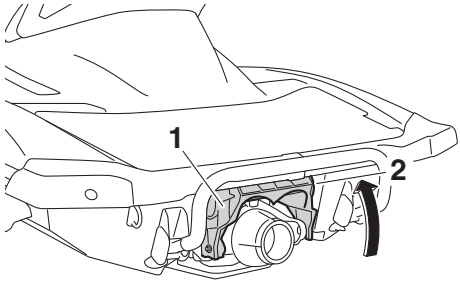
EJU43471
### Raising the reverse gate

If the RiDE system malfunctions and the reverse gate remains in the lowered position, the watercraft will not be able to move forward.
After raising the reverse gate so that the watercraft can move forward, immediately return to shore and have a Yamaha dealer service the watercraft.
To raise the reverse gate:
(1) Stop the engine and remove the clip from the engine shut-off switch.
(2) Enter the water and move to the rear of the watercraft.
(3) Slide the shift rod joint toward the bow, and then disconnect the shift rod joint from the ball joint.




**1** Shift rod joint
**2** Ball joint

(4) Raise the reverse gate to the forward position.




**1** Reverse gate
**2** Forward position

**TIP:**
- While the shift rod is disconnected, the reverse gate will not move to the neutral position or reverse position even if the RiDE lever is squeezed.
- If the RiDE lever is squeezed while the shift rod is disconnected, the watercraft will move forward.

EJU34642
### Jumping the battery

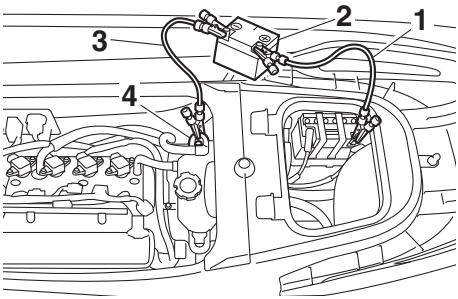
If the watercraft battery has run down, the engine can be started using a 12-volt booster battery and jumper cables.

EJU34664
#### Connecting the jumper cables

EWJ01251
**⚠ WARNING**

**To avoid battery explosion and serious damage to the electrical system:**
- **Do not reverse the polarity of the jumper cables when connecting to the batteries.**
- **Do not connect the negative (–) jumper cable to the negative (–) terminal of the watercraft battery.**
- **Do not touch the positive (+) jumper cable to the negative (–) jumper cable.**

(1) Connect the positive (+) jumper cable to the positive (+) battery terminals of both batteries.
(2) Connect one end of the negative (–) jumper cable to the negative (–) battery terminal of the booster battery.
(3) Connect the other end of the negative (–) jumper cable to an engine hanger.

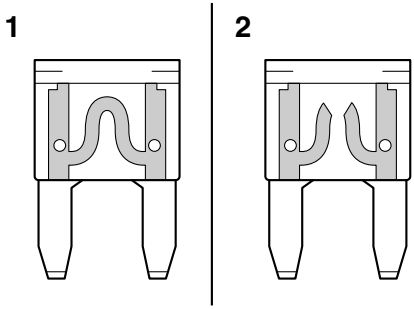



**1** Positive (+) jumper cable
**2** Booster battery
**3** Negative (–) jumper cable
**4** Engine hanger

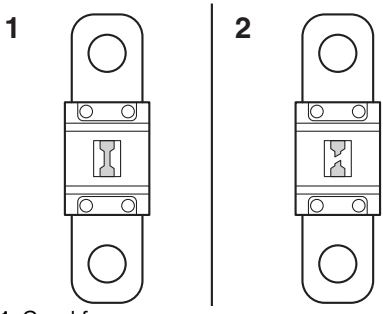
(4) Start the engine, and then disconnect the jumper cables by reversing the steps above. (See page 33 for information on starting the engine.)

EJU43880
## Replacing the fuses

If a fuse is blown, replace it with the proper fuse.




**1** Good fuse
**2** Blown fuse

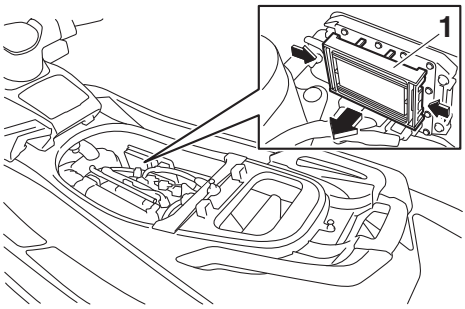



**1** Good fuse
**2** Blown fuse

To replace a fuse:

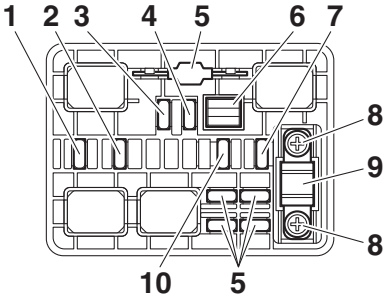
(1) Remove the seats. (See page 50 for seat removal and installation procedures.)

(2) While pushing both sides of the fuse box cover inward, pull the cover toward the port and remove it.




**1** Fuse box cover

(3) When replacing the SCU fuse, remove the screws, and then remove the fuse. Install the spare fuse, and then tighten the screws.




**1** Electronic throttle valve fuse
**2** Fuel pump fuse
**3** Main relay drive fuse
**4** Main fuse
**5** Spare fuse
**6** Fuse puller
**7** Battery fuse
**8** Screw
**9** SCU fuse (BCU fuse)
**10** Security system fuse (VX Deluxe / VX Cruiser)

(4) When replacing a fuse other than the SCU fuse, remove the fuse using the fuse puller. Install a spare fuse of the proper amperage. **WARNING! Do not use fuses of a different amperage than recommended. Substitution with a fuse that has an improper rating can cause extensive electrical system damage and possible fire.** [EWJ00803]

Fuse amperage:
- Electronic throttle valve fuse: 10 A
- Fuel pump fuse: 10 A
- Main relay drive fuse: 10 A
- Main fuse: 20 A
- Battery fuse: 30 A
- SCU fuse: 50 A
- Security system fuse: VX Deluxe 3 A, VX Cruiser 3 A

(5) Securely install the fuse box cover in its original position.
(6) Securely install the seats in their original positions.

If the fuse immediately blows again, the electrical system may be defective. If this occurs, have a Yamaha dealer service the watercraft.

EJU34716
## Towing the watercraft

EWJ00812
**⚠ WARNING**

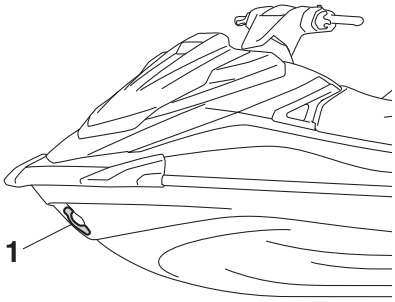
- **The operator of the towing boat must keep speed to a minimum and avoid traffic or obstacles which could be a hazard to the operator on the watercraft.**
- **The towline should be long enough so that the watercraft will not collide with the towing boat when slowing down.**

If the watercraft becomes inoperative in the water, it can be towed to shore.

To tow the watercraft:

Use a towline that is three times the combined length of the towing boat and the watercraft.

(1) Securely attach the towline to the bow eye of the watercraft being towed.




**1** Bow eye

(2) Sit astride the seat and hold on to the handlebars in order to balance the watercraft. ***NOTICE:*** **The bow must be kept up out of the water during towing, otherwise water could flood the engine compartment or water could flow back into the engine, causing severe engine damage.** [ECJ01331]

Tow the watercraft at 8 km/h (5 mph) or less. ***NOTICE:*** **Tow the watercraft at 8 km/h (5 mph) or less, otherwise water could flood the engine compartment or water could flow back into the engine, causing severe engine damage.** [ECJ01322]

EJU36156

### Submerged watercraft

If the watercraft is submerged or flooded with water, drain the bilge water from the engine compartment. Then, have a Yamaha dealer service the watercraft as soon as possible.

If the watercraft was submerged:

(1) Remove the watercraft from the water and drain the water from the storage compartments. (See page 53 for information on draining the storage compartments.)

(2) Drain the bilge water from the engine compartment. (See page 61 for information on draining the bilge water.)

(3) Have the watercraft serviced by a Yamaha dealer as soon as possible. ***NOTICE:*** **Be sure to have a Yamaha dealer inspect the watercraft. Otherwise, serious engine damage could result.** [ECJ00792]

EJU34784

## Limited warranty

### YAMAHA MOTOR CORPORATION, U.S.A.
### WAVERUNNER® WATERCRAFT LIMITED WARRANTY

Yamaha Motor Corporation, U.S.A. hereby warrants that new Yamaha WaveRunner watercraft purchased from an authorized Yamaha WaveRunner Watercraft Dealer in the United States (excluding its territories) will be free from defects in material and workmanship for the period of time stated herein, subject to certain stated limitations.

**PERIOD OF WARRANTY.** Any new Yamaha WaveRunner watercraft purchased for pleasure use will be warranted for a period of one (1) year from the date of purchase, subject to exclusions noted herein. Any Yamaha WaveRunner watercraft purchased and utilized for commercial applications will be warranted for a period of ninety (90) days from the date of purchase, subject to exclusions noted herein. The battery will be warranted against defects in material or workmanship for thirty (30) days from the date of vehicle purchase for either pleasure or commercial use. Replacement parts used in warranty repairs will be warranted for the balance of the applicable warranty period.

**OBTAINING REPAIRS UNDER WARRANTY.** During the period of warranty, any authorized Yamaha WaveRunner Watercraft 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. All parts replaced under warranty will become the property of Yamaha Motor Corporation, U.S.A.

**THE CUSTOMER'S RESPONSIBILITY** under this warranty shall be to:
1. Operate, maintain, and store the WaveRunner watercraft as specified in the appropriate Owner's/Operator's Manual, and
2. Give notice to an authorized Yamaha WaveRunner watercraft dealer of any and all apparent defects within ten (10) days after discovery, and make the machine available at that time for inspection and repairs at such dealer's place of business.

**GENERAL EXCLUSIONS** from this warranty shall include any failures caused by:
a. Racing or competition use, modification of original parts, abnormal strain.
b. Lack of proper maintenance and off-season storage as described in the Owner's/Operator's Manual.
c. Installation of parts or accessories that are not equivalent in design and quality to genuine Yamaha parts.
d. Use of lubricants, oils, and fuels that are not suitable for WaveRunner watercraft use.
e. Damage as a result of accidents, collisions, contact with foreign materials, or submersion.
f. Growth of marine organism on motor or hull surfaces.
g. Normal deterioration.
h. Gel coat stress cracks
i. Damage due to improper transportation.

**SPECIFIC PARTS EXCLUDED FROM WARRANTY.** Parts replaced due to normal wear or routine maintenance such as oil, spark plugs, fuel filters, impeller and liner, and anodes are not covered by warranty. Charges for transporting the WaveRunner watercraft to and from an authorized Yamaha WaveRunner Watercraft Dealer are excluded from warranty coverage.

**EMISSION CONTROL WARRANTY.**
Yamaha warrants to the ultimate purchaser and any subsequent owner, that the exhaust emission control components on this engine are designed, built and equipped so as to conform at the time of sale with applicable regulations under section 213 of the Clean Air Act and that this engine is free from defects in materials and workmanship which cause said engine to fail to conform with applicable regulations for 30 months from the date of purchase or 175 hours of operation, whichever comes first. For evaporative emission components, for a failure that will increase evaporative emissions, the warranty coverage is 2 years from the date of purchase. Some states may have different emission control warranty provisions. As these vary from state to state, consult your Yamaha dealer or contact Yamaha Customer Relations at 1-800-962-7926 for more information.

**WARRANTY TRANSFER:** To transfer the warranty from the original purchaser to any subsequent purchaser(s), it is imperative that the WaveRunner watercraft be inspected and registered for warranty by an authorized Yamaha WaveRunner watercraft dealer. In order for this warranty to remain in effect, this inspection and registration must take place within ten (10) days after transfer of ownership to the subsequent purchaser. A reasonable dealer-imposed fee may be charged for this inspection.

***YAMAHA MOTOR CORPORATION, U.S.A. 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 MOTOR CORPORATION, U.S.A. AND EXCLUDED FROM THIS WARRANTY.***

***SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. ALSO EXCLUDED FROM THIS WARRANTY ARE 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 MOTOR CORPORATION, U.S.A.**
**Post Office Box 6555**
**Cypress, California 90630**

**WARRANTY QUESTIONS AND ANSWERS**

Q. What costs are my responsibility during the warranty period?
A. The customer's responsibility includes all costs of normal maintenance services, non-warranty repairs, accident and collision damages.

Q. What are some examples of "abnormal" strain, neglect, or abuse?
A. These terms are general and overlap each other in areas. Specific examples include:
Running the watercraft out of oil, operating the machine with a broken or damaged part which causes another part to fail, and so on. If you have any specific questions on operation or maintenance, please contact your Yamaha dealer for advice.

Q. Does the warranty cover incidental costs such as transportation due to a failure?
A. No. The warranty is limited to repair of the watercraft itself.

Q. May I perform any or all of the recommended maintenance shown in the Owner's/Operator's Manual instead of having the dealer do them?
A. Yes, if you are a qualified mechanic and follow the procedures specified in the Owner's/Operator's and Service Manual. We do recommend, however, that items requiring special or equipment be done by a Yamaha dealer.

Q. Will the warranty be void or cancelled if I do not operate or maintain my new watercraft exactly as specified in the Owner's/Operator's Manual?
A. No. The warranty on a new watercraft cannot be "voided" or "cancelled". ***However, if a particular failure is caused by operation or maintenance other than as shown in the Owner's/Operator's Manual, that failure may not be covered under warranty.***

Q. What responsibility does my dealer have under this warranty?
A. Each Yamaha dealer is expected to:
1. Completely set up each new watercraft before sale.
2. Explain the operation, maintenance, and warranty requirements to your satisfaction at the time of sale, and upon your request at any later date. In addition, each Yamaha dealer is held responsible for his setup, service and warranty repair work.

Q. Is the warranty transferable to second owners?
A. Yes. The remainder of the existing warranty can be transferred upon request. The unit has to be inspected and re-registered by an authorized Yamaha dealer for the policy to remain effective.

**CUSTOMER SERVICE**

If your watercraft requires warranty service, you must take it to any authorized Yamaha dealer within the continental United States. Be sure to bring your warranty registration card or other valid proof of the original date of purchase. If a question or problem arises regarding warranty, first contact the owner of the dealership. Since all warranty matters are handled at the dealer level, this person is in the best position to help you. If you are still not satisfied and require additional assistance, please write:

YAMAHA MOTOR CORPORATION U.S.A.
CUSTOMER RELATIONS DEPARTMENT
P.O. Box 6555
Cypress, California 90630

**CHANGE OF ADDRESS**

The federal government requires each manufacturer to maintain a complete, up-to-date list of all first purchasers against the possibility of a safety-related defect and recall. This list is complied from the purchase registrations sent to Yamaha Motor Corporation, U.S.A. by the selling dealer at the time of your purchase.
If you should move after you have purchased your new watercraft, please advise us of your new address by sending a postcard listing your Yamaha model name, engine number, dealer number [or dealer's name] as it is shown on your warranty card, your name and new mailing address.
Mail to:

YAMAHA MOTOR CORPORATION, U.S.A.
P.O. Box 6555
Cypress, California 90630
Attention: Warranty Department

This will ensure that Yamaha Motor Corporation, U.S.A. has an up-to-date registration record in accordance with federal law.

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## YAMAHA EXTENDED SERVICE (Y.E.S.)

Keep your Yamaha protected even after your warranty expires with genuine Yamaha Extended Service (Y.E.S.).

- Y.E.S. is designed and administered by Yamaha Motor Corporation to provide maximum owner satisfaction. You get uninterrupted factory-backed coverage for extra peace of mind.
- Y.E.S. is flexible. You choose the plan that is right for you: 12 months, 24 months, 36 months, or (on four-stroke models) 48 months beyond your warranty period.
- Y.E.S. is designed and administered by the same Yamaha people who handle your warranty—and it shows in the comprehensive coverage benefits. There are no mileage limitations. Coverage is not limited to “moving parts” or the “drive train” like many other plans. And Y.E.S. covers manufacturing defects just like the warranty. See the sample contract at your Yamaha dealer to see how comforting uninterrupted factory-backed protection can be.
- You do not have to pay anything for covered repairs. There is no deductible to pay, and repairs are not “pro-rated.” You do not have any “out-of-pocket” expenses for covered repairs.
- In addition, Travel and Recreation Interruption Protection (TRIP) is included at no extra cost. TRIP gives you up to $250 reimbursement per occurrence for any reasonable expenses you incur because your Yamaha needs covered service: replacement vehicle rental, emergency towing, phone calls, even food and lodging when you are away from home. This superb coverage goes into effect when you purchase Y.E.S., so it applies to any warranty repairs as well as covered repairs during your entire Y.E.S. plan period.
- Y.E.S. coverage is honored at any authorized Yamaha dealer nationwide.
- Y.E.S. coverage is transferable to a new owner if you sell or trade-in. That can make your Yamaha much more valuable!

This excellent Y.E.S. plan coverage is only available to Yamaha owners like you, and only while your Yamaha is still within the Yamaha Limited Warranty period. So visit your authorized Yamaha dealer to get all the facts. He can show you how easy it is to protect your investment with Yamaha Extended Service.
We urge you to act now. You will get the excellent benefits of TRIP coverage right away, and you will rest easy knowing you will have strong factory-backed protection even after your Yamaha Limited Warranty expires.

A special note:
If visiting your dealer is not convenient, contact Yamaha with your Primary ID number (your Owner’s Manual shows you where to find this number). We will be happy to help you get the Y.E.S. coverage you need.

Yamaha Service Marketing
P.O. Box 6555
Cypress, CA 90630
1-(866)-YES-EXTD
(1-866-937-3983)



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