

WaveRunner



**2001
WaveRunner**

GP1200R



OWNER'S/OPERATOR'S MANUAL

**READ THIS MANUAL
CAREFULLY BEFORE OPERATION!**

U.S.A. Edition

**YAMAHA MOTOR CORPORATION, USA
LIT-18626-04-04●**

WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

YAMAHA

LIT-CALIF-65-01

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.

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.

Important manual information:

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



The Safety Alert Symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

WARNING

Failure to follow WARNING instructions could result in severe injury or death to the machine operator, passenger(s), a bystander, or a person inspecting or repairing the watercraft.

CAUTION:

A CAUTION indicates special precautions that must be taken to avoid damage to the watercraft.

NOTE:

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

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OWNER'S/OPERATOR'S MANUAL
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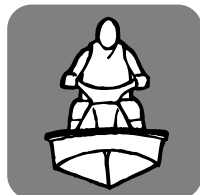
CONTENTS



GENERAL AND SAFETY INFORMATION

1

FEATURES AND FUNCTIONS

2

OPERATION

3

MAINTENANCE AND CARE

4

TROUBLESHOOTING AND EMERGENCY PROCEDURES

5

APPENDIX

6

**READ THIS OWNER'S/OPERATOR'S MANUAL CAREFULLY
BEFORE OPERATING YOUR WATERCRAFT.**



GENERAL AND SAFETY INFORMATION

1

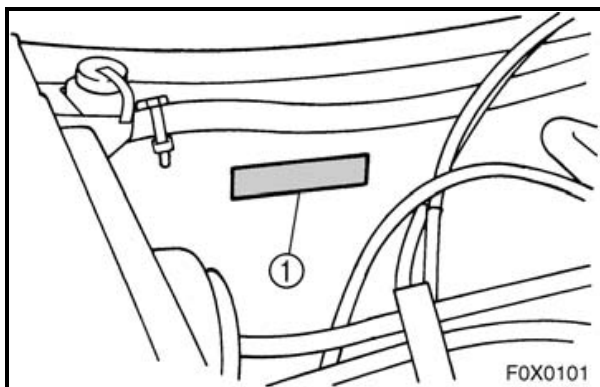
Identification numbers	1-1
Primary Identification (PRI-ID) number..	1-1
Hull Identification Number (HIN).....	1-1
Engine serial number.....	1-1
Emission control information	1-2
Approval label of Emission control certificate	1-2
Manufactured date label	1-2
Important labels	1-3
Label location	1-3
Warning labels	1-4
Caution labels	1-6
Other labels.....	1-7
 Safety information	1-8
Limitations on who may operate the watercraft.....	1-8
Cruising limitations.....	1-9
Operation requirements.....	1-10
Hazard information	1-13
Watercraft characteristics	1-13
Rules of the Road	1-15
Steering and sailing rules	1-15
Rules when encountering vessels	1-16
Other special situations	1-17
Reading buoys and other markers.....	1-17
To get more boating safety information	1-19
United States Coast Guard	1-19
Other sources	1-19
Watercraft Education and Training.....	1-19
Enjoy your watercraft responsibly	1-20



EJU00699

Identification numbers

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



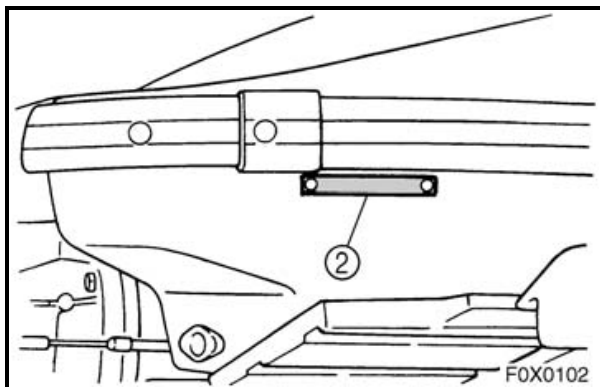
EJU00700

Primary Identification (PRI-ID) number

MODEL	GP1200A-Z	PRI-ID	FOX
YAMAHA MOTOR MANUFACTURING CORPORATION OF AMERICA. ASSEMBLED IN U.S.A. FROM AMERICAN AND JAPANESE COMPONENTS. ASSEMBLÉ AUX ÉTATS-UNIS DE PIÈCES AMÉRICAINES ET JAPONNAISES			

F	O	X	-						
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The PRI-ID number is stamped on a label ① attached to the inside of the engine compartment.

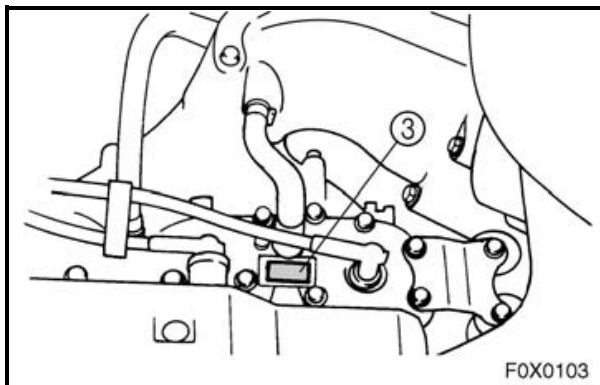


EJU00701

Hull Identification Number (HIN)

Y	A	M							
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The HIN is stamped on a plate ② attached to the hull on the aft, starboard side.

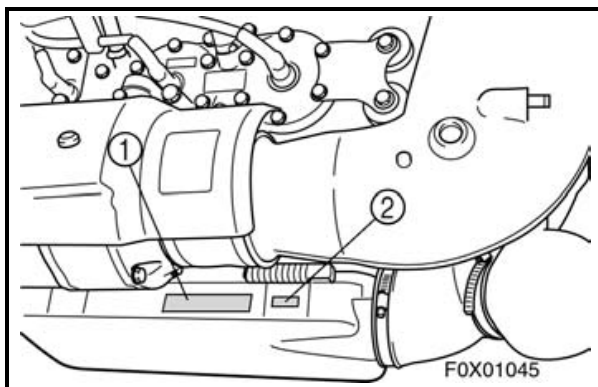
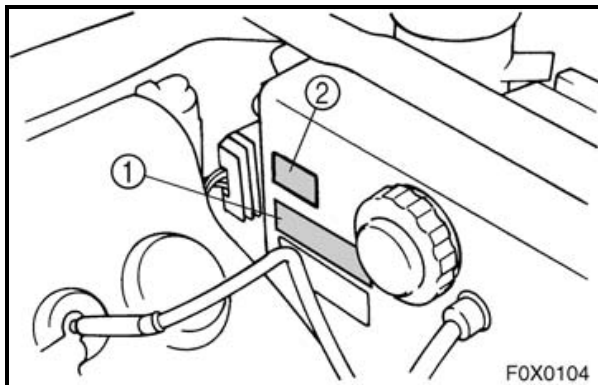


EJU00288a

Engine serial number

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

The engine serial number is stamped on a label ③ attached to the engine unit.



EJU00631a

Emission control information

This engine conforms to the U.S. Environmental Protection Agency (EPA) regulations for marine SI engines for the year 2001.

Approval label of Emission control certificate

This label is attached to the electrical box and the silencer of the carburetor.

① Emission control information label

EMISSION CONTROL INFORMATION		CATALYST
ENGINE FAMILY : _____		
THIS ENGINE CONFORMS TO 2001 U.S. EPA REGULATIONS FOR MARINE SI ENGINES.		
FELs : _____ g/kw-hr	SPARK PLUG GAP (mm) : _____	TROLLING SPEED : _____ rpm
DISPLACEMENT : _____ cm ³	FUEL : UNLEADED REGULAR GASOLINE	ENGINE LUBRICANT : YAMALUBE 2W
ADVERTISED POWER : _____ kW	YAMAHA MOTOR CO.,LTD.	

Manufactured date label

This label is attached to the electrical box and the silencer of the carburetor.

② Manufactured date label

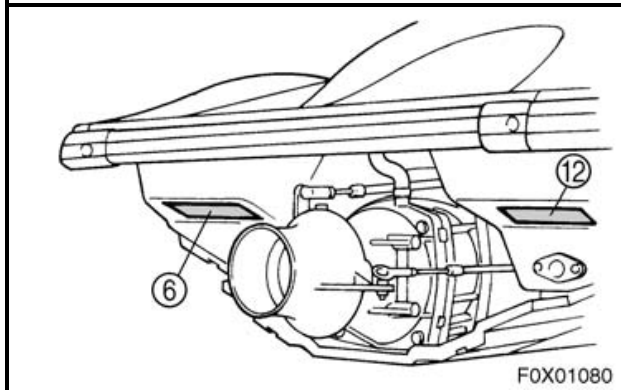
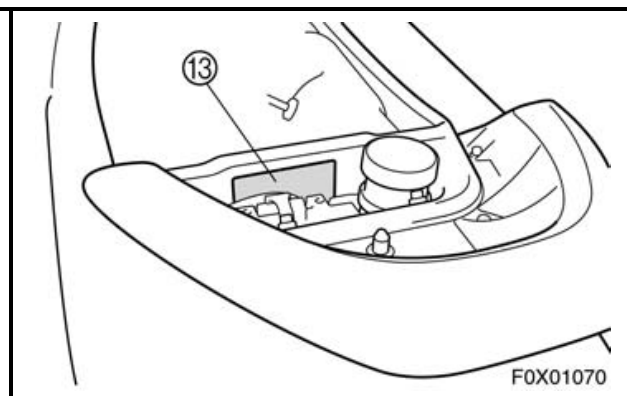
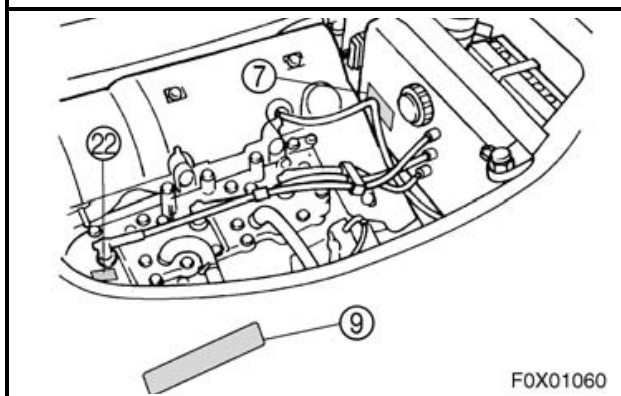
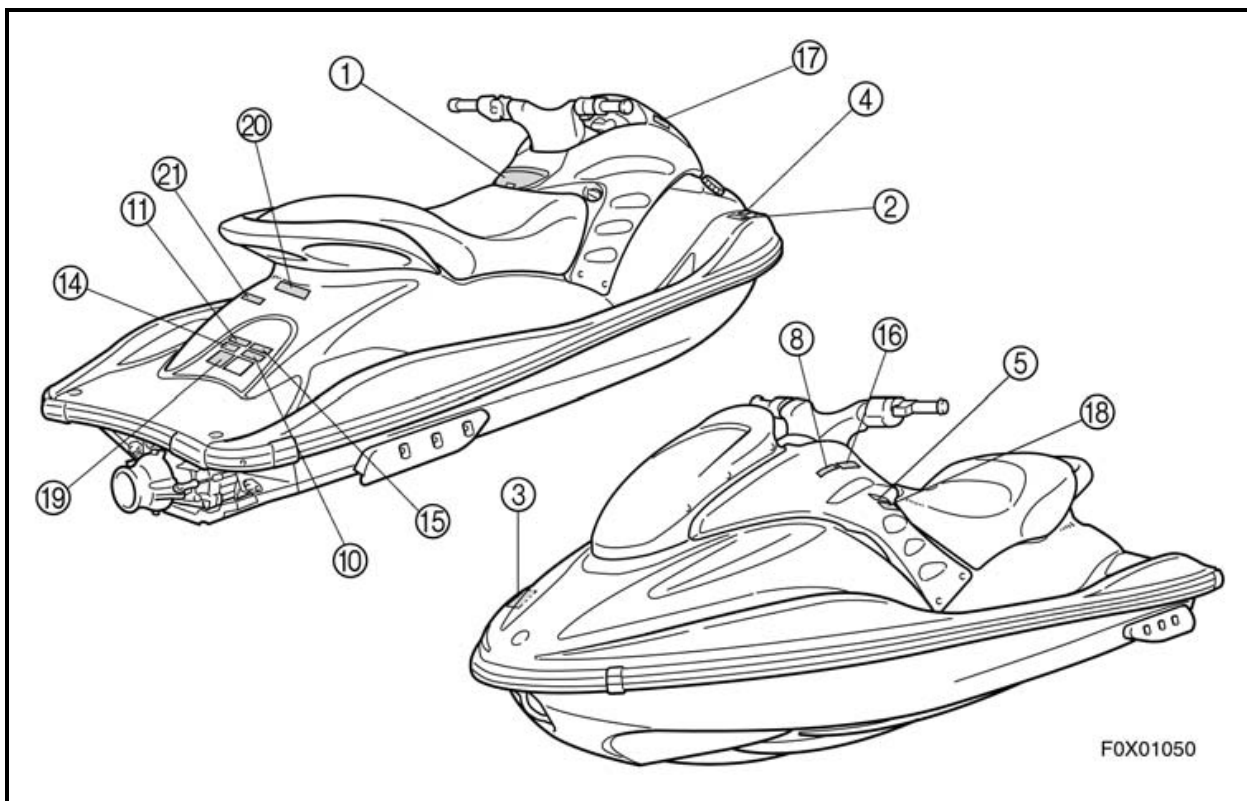
YAMAHA
Manufactured:



EJU00293

Important labels

Label location





Warning labels

①

⚠ 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.

YAMAHA
F0X-U41B1-00

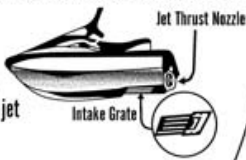
NEVER RIDE AFTER CONSUMING DRUGS OR ALCOHOL
READ AND FOLLOW OWNER'S MANUAL

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.



②

⚠ WARNING

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

TO AVOID COLLISIONS:

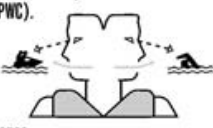
SCAN CONSTANTLY for people, objects, and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.

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.

YAMAHA
F0M-U41B2-00



③

⚠ WARNING

Remove all seats and front storage compartment 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.

YAMAHA
F0P-U41B0R-00

④

⚠ 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.

REGULAR UNLEADED GASOLINE ONLY

YAMAHA
F0P-U415B-00

⑤

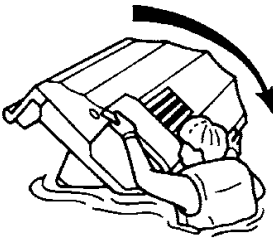
⚠ WARNING

Do not add gasoline to oil tank.
Fire or explosion could result.

YAMAHA
F0X-U41D7-00



⑥



⚠ WARNING

IMPROPER UPRIGHTING CAN CAUSE INJURY.

- Shut engine off, and be sure engine shut-off cord is removed from engine shut-off switch.
- Do not put hand in intake grate.
- Make sure that you are not hit by PWC as it comes over.

TO TURN OVER:

- Pull PWC over with left hand on ride plate while pushing down on gunwale with right hand/foot.

YAMAHA

F0P-U41E1-10

⑦

⚠ WARNING

Do not touch or remove electrical parts when starting or running the engine.

YAMAHA

6R7-83623-40

⑧

⚠ WARNING

Do not start engine on land until everyone is away from stern. Hot water and steam spurting from exhaust outlet can cause serious burns.

YAMAHA

F0X-U418U-00

⑨

⚠ WARNING

Hot muffler surfaces can cause serious burns. Do not touch any muffler surface during or after engine operation. Catalytic converter gets hotter after engine stops.

YAMAHA

F0X-U418V-00

⑩

⚠ 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.

(F0X-U41E2-00)

(F0X-U41E2-00)

⑪

⚠ WARNING

Stay away from stern when engine is running on land. Hot water and steam spurting from exhaust outlet can cause serious burns.

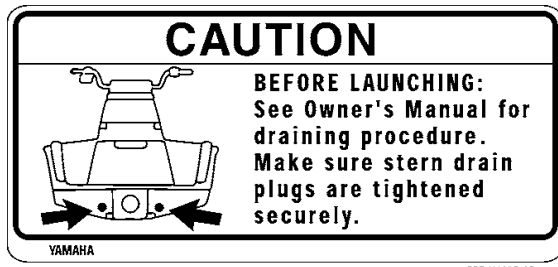
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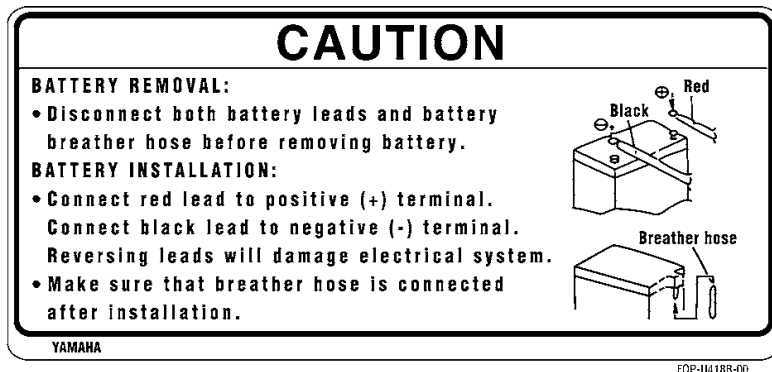


Caution labels

⑫



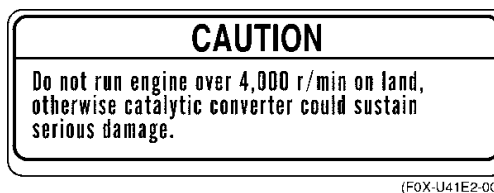
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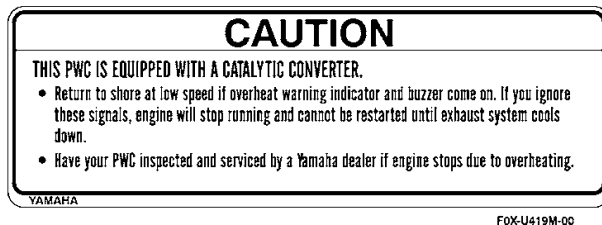
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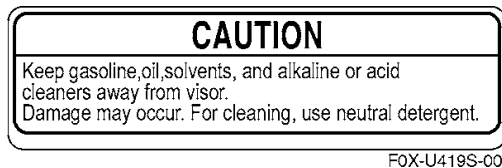
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⑯



⑰



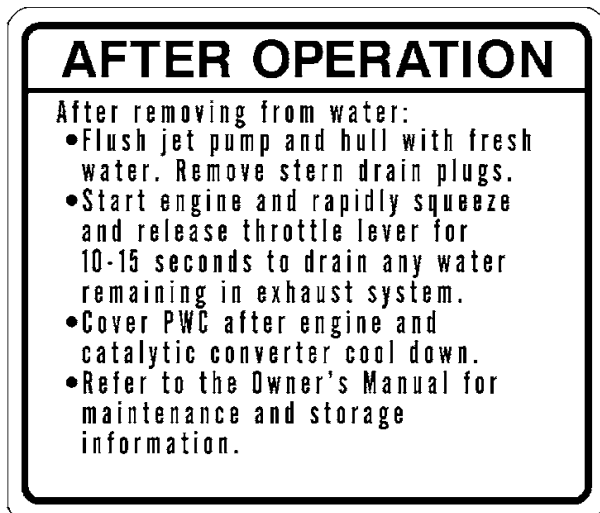
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Other labels

①9



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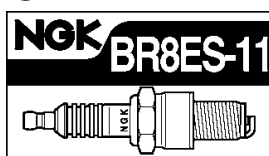
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②1



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②2



(66V-42791-00)



EJU00686



Safety information

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 the Owner's/Operator's Manual, the Riding Practice Guide, the Riding Instruction card and all warning and caution 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 the Owner's/Operator's Manual, the Riding Practice Guide, the Riding Instruction card and all warning and caution labels, and if possible watched the Basic Orientation Video. Showing them the video may help reinforce the information contained in these materials.

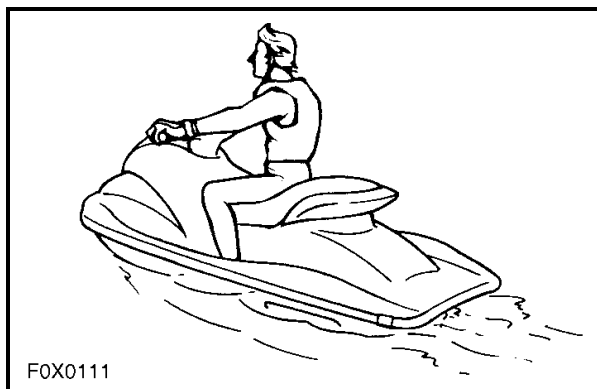
EJU00667a

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 one passenger. Never exceed the maximum load limit or allow more than 2 persons to ride the watercraft at one time.

Maximum load: 160 kg (353 lb)

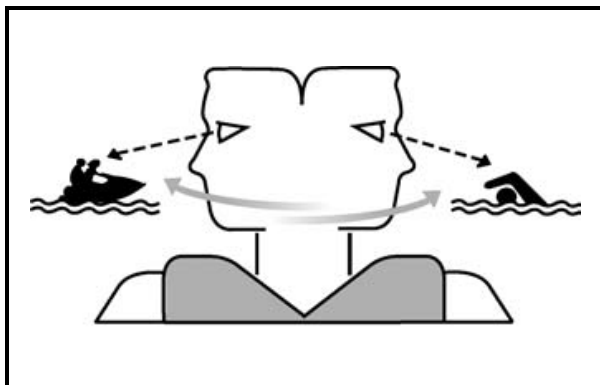
Load is the total weight of cargo, operator and passengers.

- Do not operate the watercraft with a passenger on board until you have considerable practice and experience riding alone. Operating the watercraft with a passenger requires more skill. Take the time to become accustomed to the handling characteristics of the watercraft before trying any difficult maneuvers.



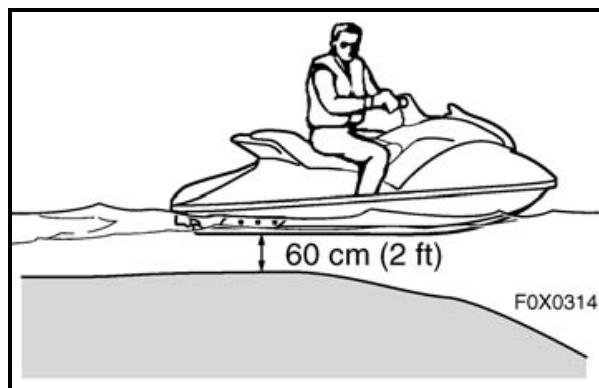
EJU00613

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.
- 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.
- 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 ride your watercraft without someone else near by. If you ride further than swimming distance from shore, you should ride 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, otherwise you increase your chance of hitting a submerged object, which could result in injury.

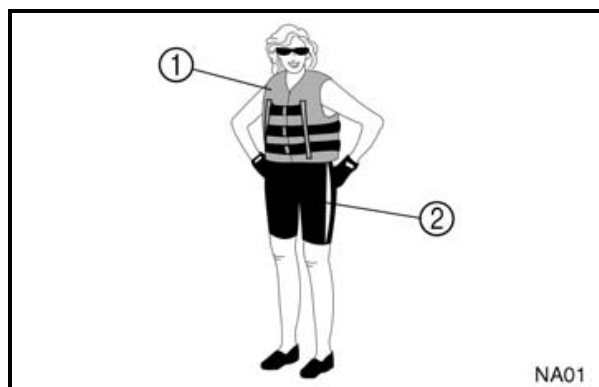


- This watercraft is not equipped with lighting required for night operation. Do not operate the watercraft after sunset or before dawn, otherwise you increase the risk of colliding with another boat, which could result in severe injury or death.

EJU00735a

Operation requirements

- All riders must wear a Coast Guard 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 water or being near the jet thrust nozzle. Normal swimwear does not adequately protect against forceful water entry into 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 Coast Guard approved PFD

② Wetsuit bottom

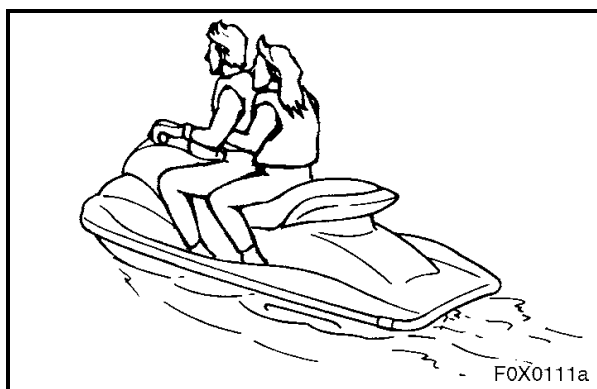
- Eye protection is recommended to keep wind, water, and glare from the sun out of your eyes while you operate your watercraft. Restraining straps for eyewear are made which are designed to float should your eyewear fall in the water. Footwear and gloves are recommended.



- 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 also 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, your riding style and your riding 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.



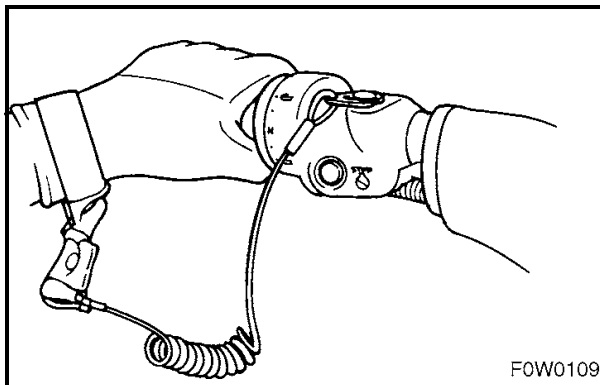
- NEVER operate the watercraft after consuming alcohol or taking other drugs.
- For reasons of safety and proper care of the watercraft, always perform the pre-operation checks listed on page 3-5 before operating the watercraft.
- The operator and passenger should always keep both feet in the footwell when the watercraft is in motion. Lifting your feet increases your chances of losing your balance, and your feet being hit by objects outside the watercraft. Do not give a ride to a child whose feet cannot reach the floor of the footwell.



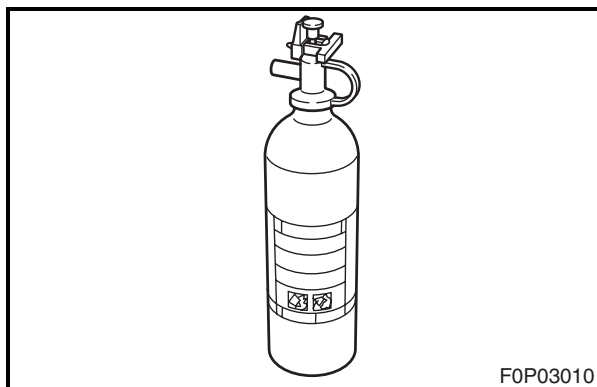
- Passenger should firmly hold on to the operator.
- Always consult your doctor on whether it is safe for you to ride this watercraft if you are pregnant or in poor health.



- 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 wrist and keep it free from the handle-bars so that the engine stops if the operator falls off. After riding, remove the engine shut-off cord 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 you maneuver more quickly than other boaters expect, you risk a collision.
- Maintain a safe distance from other boats or watercraft, and also watch for boats' ski ropes or fishing lines. Obey the "Rules of the Road," and be sure to check behind you before making a turn. (See Rules of the Road on pages 1-15 to 1-18.)

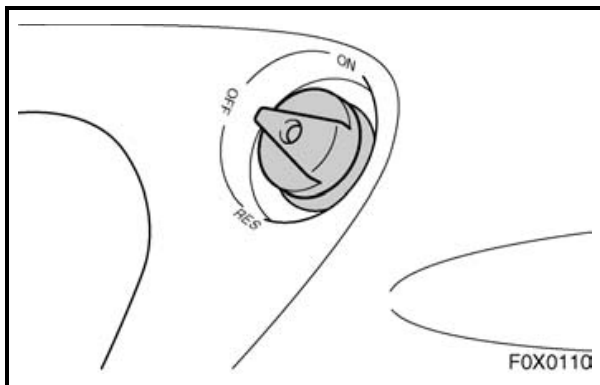


- This watercraft is included in the Class A inboard boat classification of the U.S. Coast Guard. A watercraft of this type **MUST** carry a fire extinguisher of a B-1 classification, with a capacity of two pounds or more when navigating in waters under Coast Guard jurisdiction. In addition, most state and local boating laws also require that the fire extinguisher be approved by the USCG.



EJU00313

Hazard information

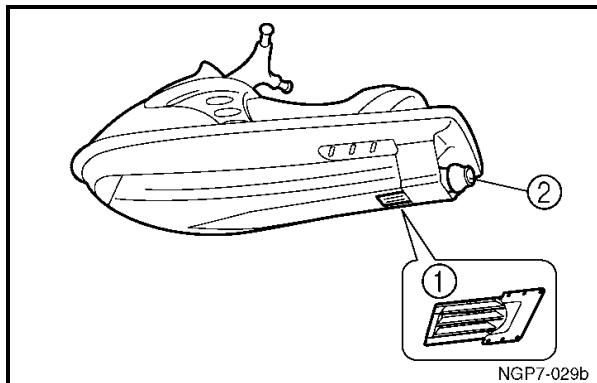


- When transporting or storing your watercraft, always place the fuel cock knob in the “OFF” position, otherwise gasoline may overflow from the carburetor.
- Never start the engine or let it run for any length of time in an enclosed area. Exhaust fumes contain carbon monoxide, a colorless, odorless gas that may cause loss of consciousness and death within a short time. Always operate the watercraft in an open area.
- Do not start engine on land until everyone is away from stern. Hot water and steam spurting from exhaust outlet can cause serious burns.
- Hot muffler surfaces can cause serious burns. Do not touch any muffler surface during or after engine operation. Catalytic converter gets hotter after engine stops.

EJU00315a

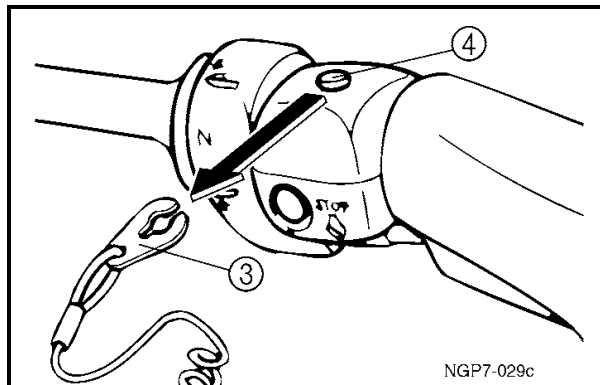
Watercraft characteristics

- Jet thrust turns the watercraft. Releasing the throttle 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, but once the engine slows down, the watercraft will no longer respond to handlebar input until you open the throttle again or you reach a trolling speed. Practice turning in an open area without obstructions until you have a good feel for this maneuver.
- This watercraft are 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. There is no “neutral” position.
- Keep away from intake grate ① 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 ② while the engine is running. Severe injury or death could result from coming in contact with the rotating parts of the jet pump.





- Stop the engine and remove the clip ③ from the engine shut-off switch ④ before removing any debris or weeds, which may have collected around the jet intake.





Rules of the Road

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

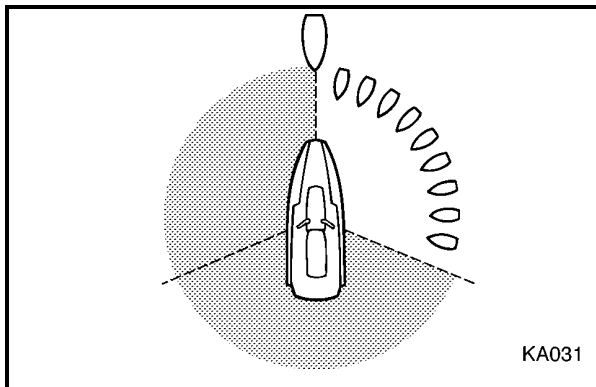
There are three main situations that you may encounter with other vessels which could lead to a collision unless the Steering Rules are followed:

Meeting: you are approaching another vessel head-on

Crossing: you are traveling across another vessel's path

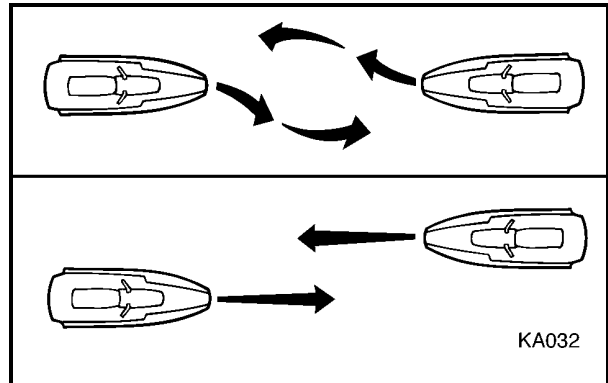
Overtaking: you are passing or being passed by another vessel

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.



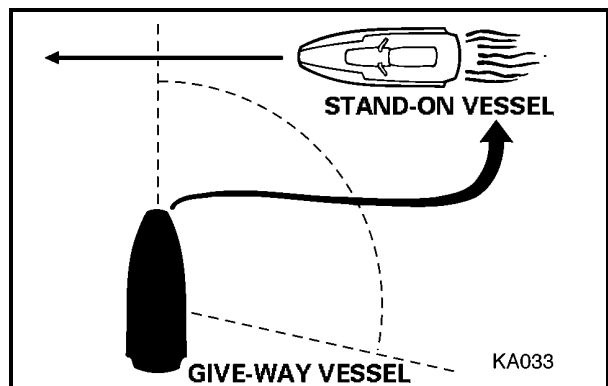
Meeting

If you are meeting another power 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 direction, 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

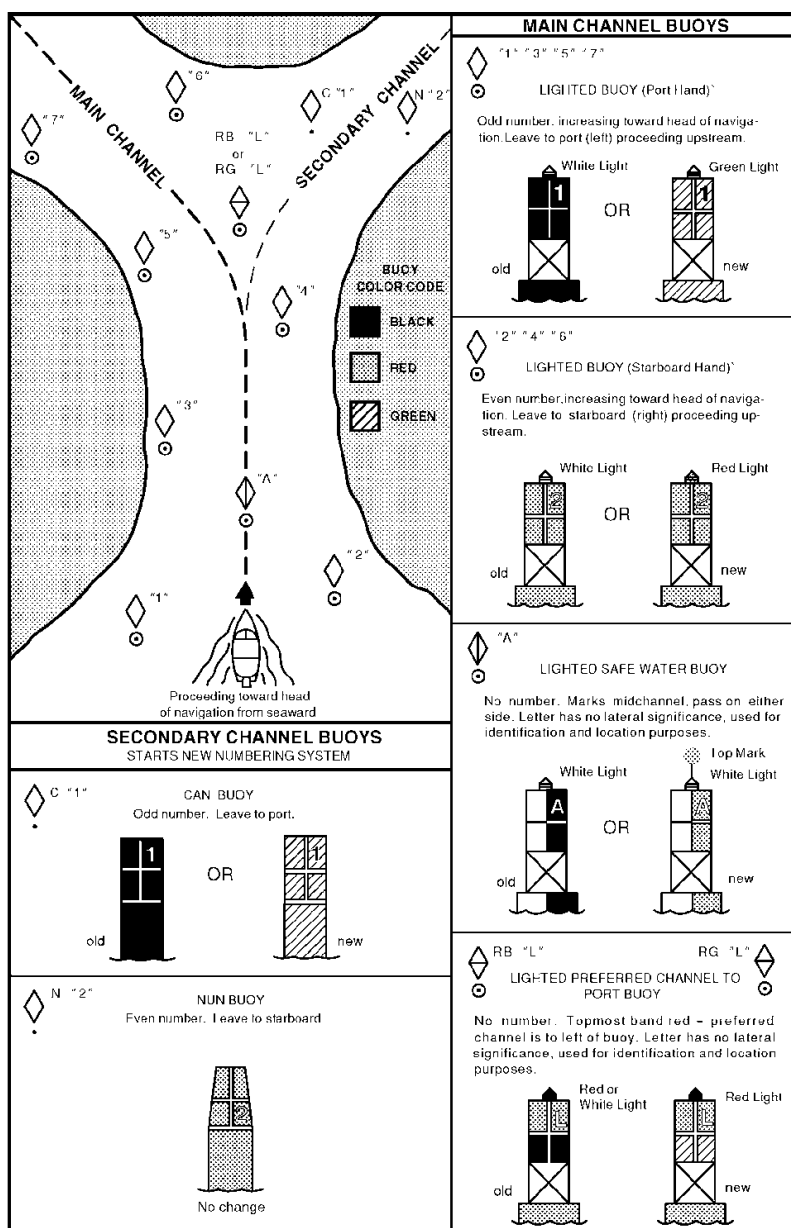
The waters of the United States are marked for safe navigation by the lateral system of buoyage. Simply put, buoys and markers have an arrangement of shapes, colors, numbers and lights to show which side of the buoy a boater should pass on when navigating in a particular direction. The markings on these 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.



KA034



EJU00320

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
Boating Safety Hotline: 1-800-368-5647

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.com/onlinecourse/>

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.



EJU00322

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.

Remember that 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. And keep your surroundings pleasant for the people and wildlife that share the waterways: don't litter!

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.



—MEMO—

FEATURES AND FUNCTIONS



Location of main components 2-1

**Operation of controls and other
functions** 2-5

Seat 2-5

Hood 2-6

Fuel tank filler cap 2-6

Oil tank filler cap 2-6

Fuel cock knob 2-7

Engine stop switch 2-8

Engine shut-off switch 2-8

Choke lever 2-8

Throttle lever 2-9

Start switch 2-9

Cooling water pilot outlet 2-10

Steering system 2-10

Quick Shift Trim System (QSTS)

selector 2-11

Engine overheat warning system 2-13

Exhaust temperature warning
system 2-14

Handgrip 2-16

Multifunction information center 2-17

Tachometer 2-18

Speedometer 2-18

Reset button 2-18

Fuel meter 2-19

Hour meter 2-19

Fuel warning indicator 2-20

Oil warning indicator 2-20

Engine overheat warning indicator 2-21

Exhaust temperature warning
indicator 2-21

Storage compartments 2-22

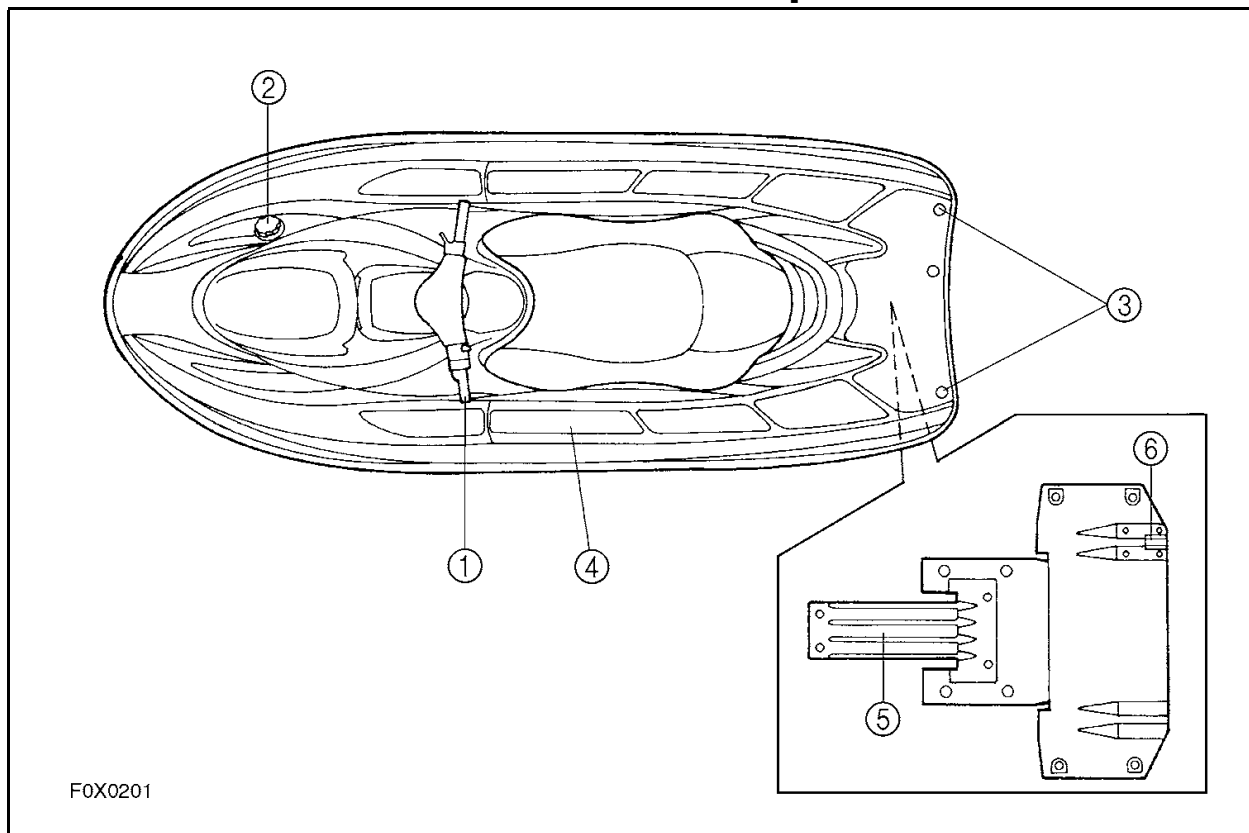
Yamaha Adjustable Sponson

(Y.A.S.) 2-23

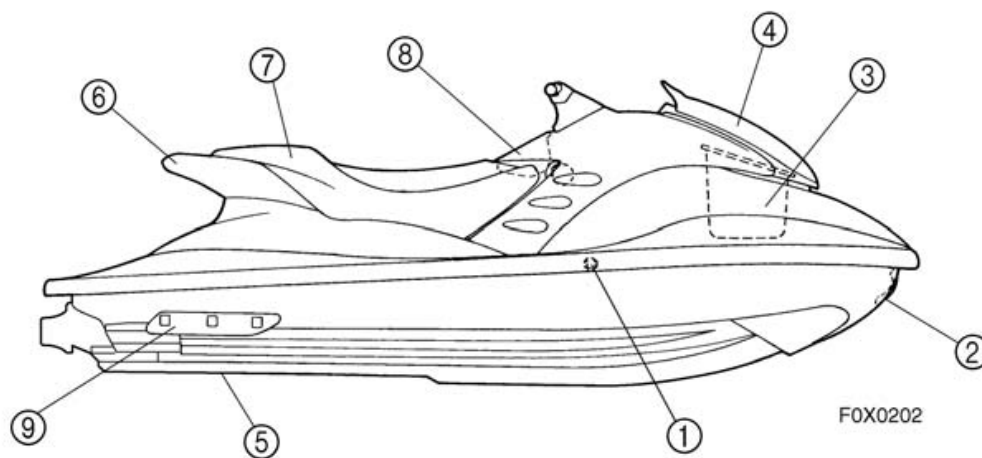


EJU00327

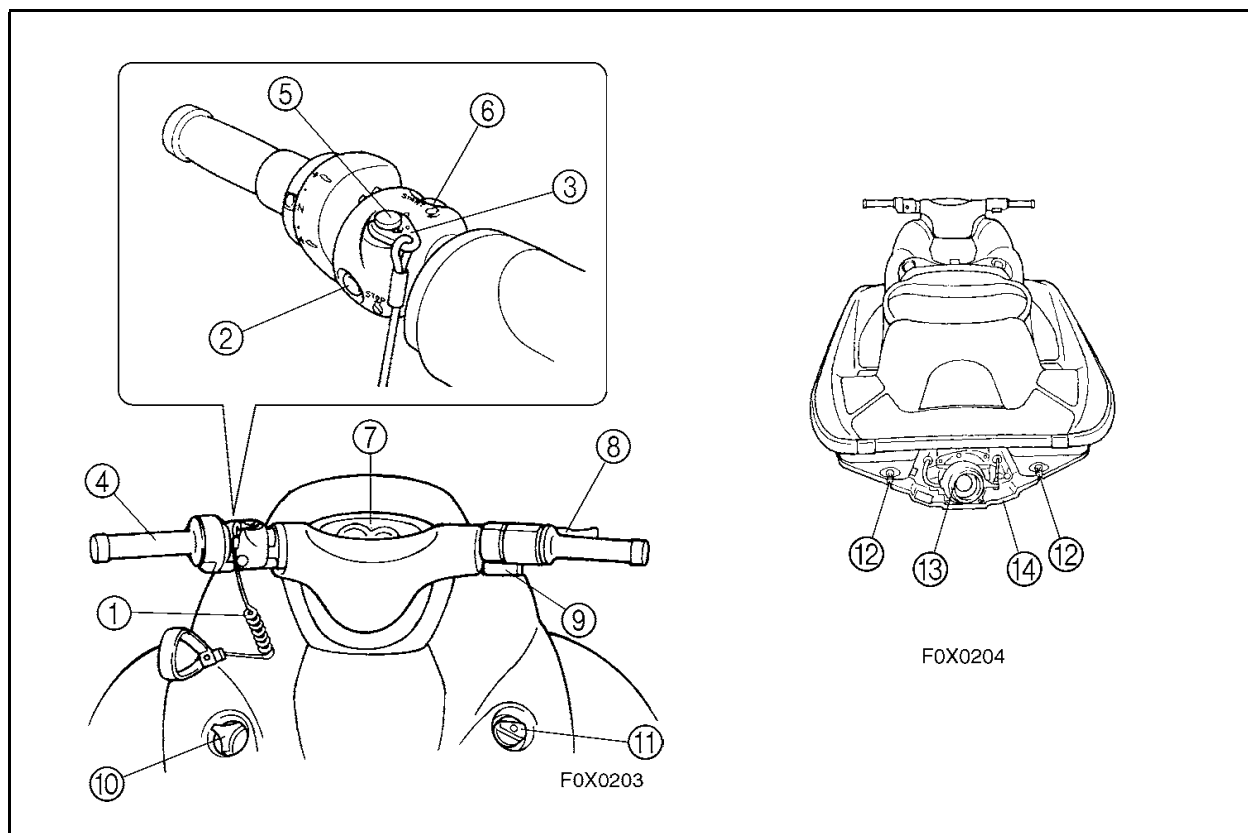
Location of main components



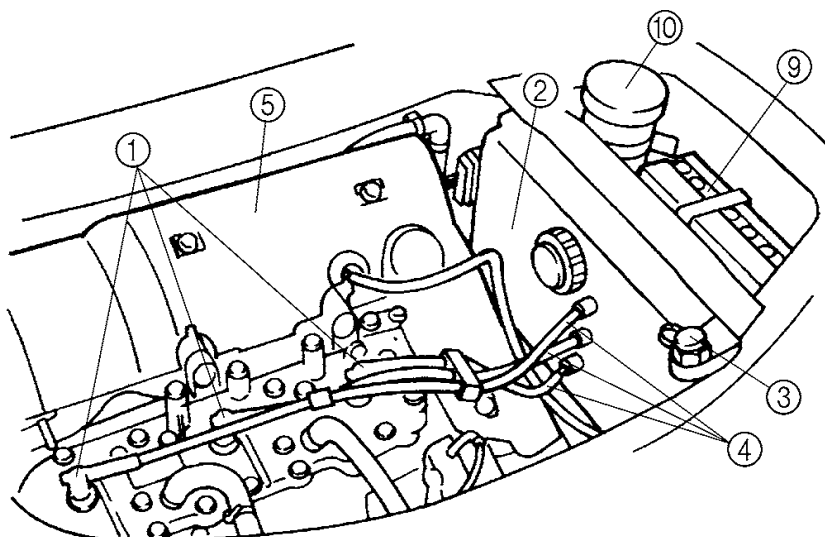
- ① **Handlebars**
Use to control direction.
- ② **Fuel tank filler cap**
- ③ **Rope hole**
- ④ **Footwell**
Use to place feet for balance.
- ⑤ **Intake grate**
Prevents debris from getting into the jet pump.
- ⑥ **Speed sensor**



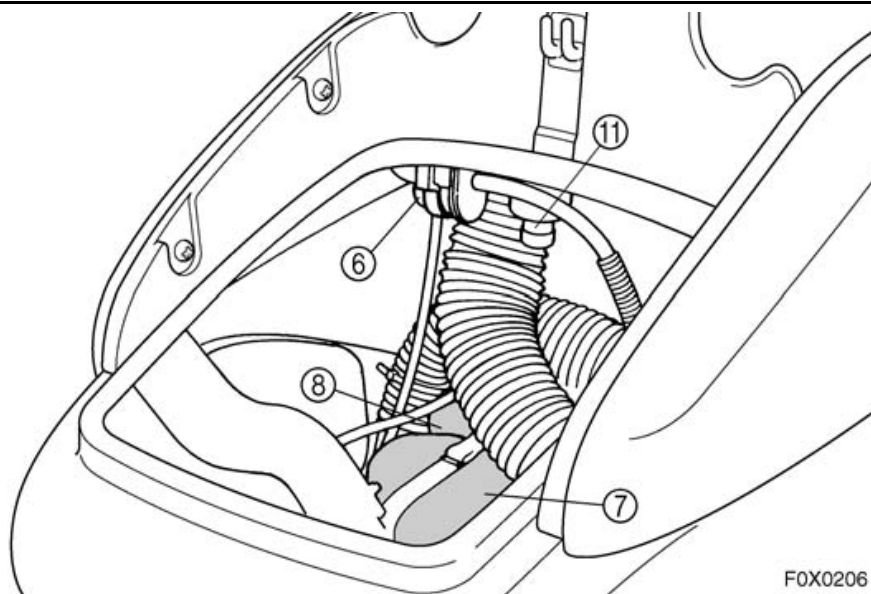
- ① **Cooling water pilot outlet**
Use to verify cooling water flow.
- ② **Bow eye**
Use to attach rope for transporting, mooring or towing the watercraft in an emergency.
- ③ **Front storage compartment**
- ④ **Hood**
- ⑤ **Jet intake**
- ⑥ **Handgrip**
- ⑦ **Seat**
- ⑧ **Glove compartment**
- ⑨ **Yamaha Adjustable Sponson (Y.A.S.)**



- ① **Engine shut-off cord (lanyard)**
Attach to wrist so that the engine stops if the operator falls off the watercraft.
- ② **Engine stop switch**
Push to stop the engine normally.
- ③ **Clip**
Insert into the engine shut-off switch to enable starting of the engine.
Remove to stop the engine or prevent accidental starting of the engine or unauthorized use of the watercraft.
- ④ **Quick Shift Trim System (QSTS) selector**
Use to select the trim angle of the watercraft.
- ⑤ **Engine shut-off switch**
Remove the clip to stop the engine and disable it from starting.
- ⑥ **Start switch**
Push to start the engine.
- ⑦ **Multifunction information center**
Use to check watercraft operation.
- ⑧ **Throttle lever**
Use to accelerate and decelerate.
- ⑨ **Choke lever**
- ⑩ **Oil tank filler cap**
- ⑪ **Fuel cock knob**
- ⑫ **Stern drain plugs**
Use to drain water in the bilge when the watercraft is on dry land.
- ⑬ **Jet thrust nozzle**
Changes the direction of jet thrust according to handlebar position.
- ⑭ **Ride plate**

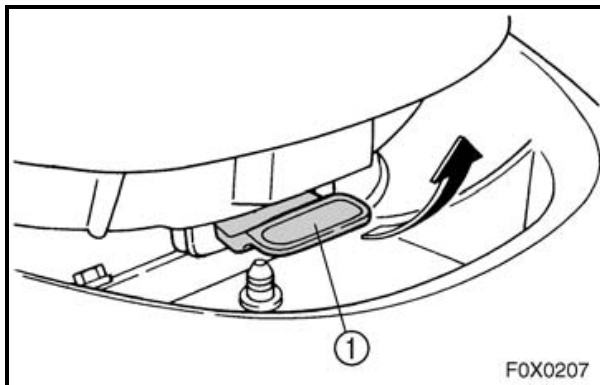


FOX0205



FOX0206

- | | |
|---|-------------------------------|
| ① Spark plugs/Spark plug caps | ⑧ Oil tank |
| ② Electrical box | ⑨ Battery |
| Protects electrical components from water. | ⑩ Fire extinguisher container |
| ③ Flush hose connector | ⑪ Water separator |
| Use to flush the engine cooling water passages. | |
| ④ Spark plug lead | |
| ⑤ Muffler | |
| ⑥ Fuel filter | |
| ⑦ Fuel tank | |



EJU00328

Operation of controls and other functions

EJU00335a

Seat

There is a seat latch ① at the rear of the seat to remove the seat.

To remove the seat:

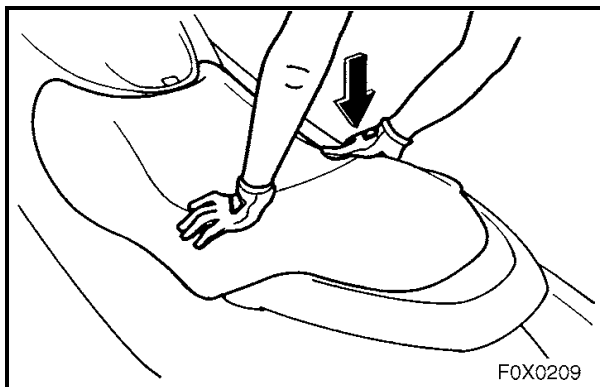
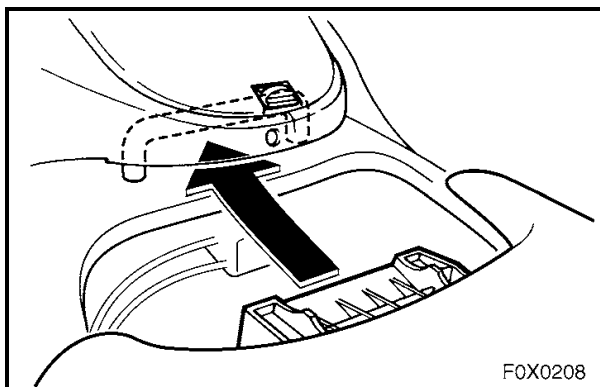
Pull the seat latch ① up, and then pull the seat off.

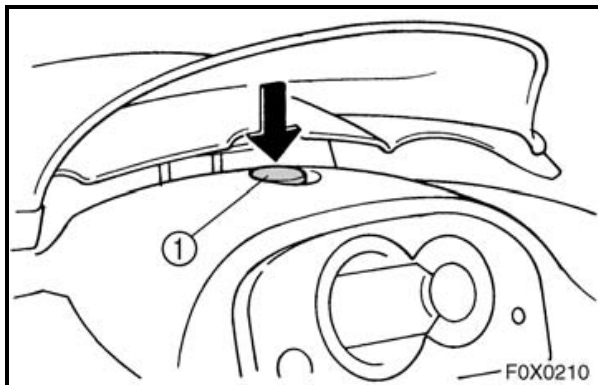
To install the seat:

Insert the projection on the front of the seat into the stay on the deck, and then push the rear of the seat down to lock it in place securely.

NOTE:

Make sure that the seat is properly secured before operating the watercraft.





EJU00703

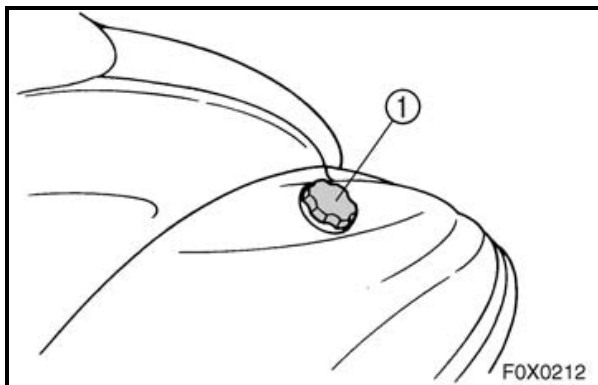
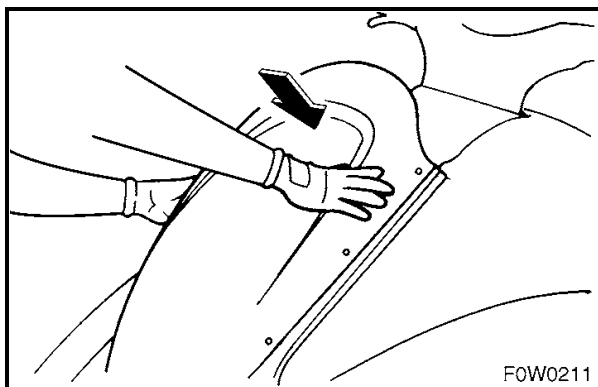
Hood

To open the hood, push the latch ① down, and then lift the hood up.

To close the hood, push the hood down to lock it in place.

NOTE:

Make sure that the hood is properly secured before operating the watercraft.



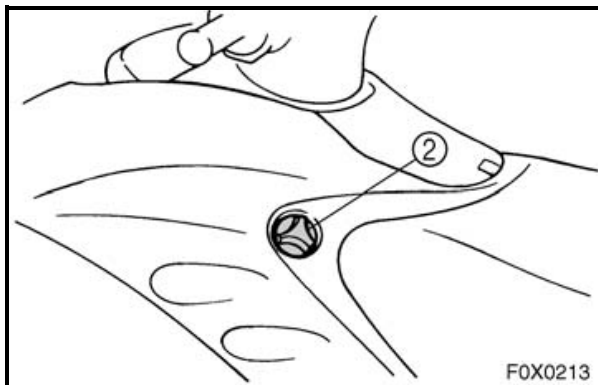
EJU00347

Fuel tank filler cap

To remove the fuel tank filler cap ①, turn it counterclockwise.

NOTE:

Make sure that the fuel tank filler cap is properly secured before operating the watercraft.



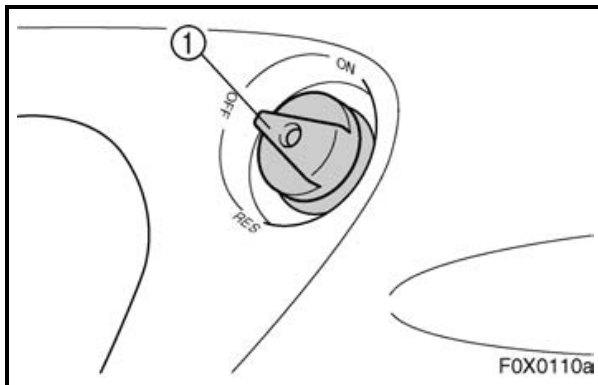
EJU00001N

Oil tank filler cap

To remove the oil tank filler cap ②, turn it counterclockwise.

NOTE:

Make sure that the oil tank filler cap is properly secured before operating the watercraft.



EJU00704

Fuel cock knob

The fuel cock supplies fuel from the fuel tank to the carburetors.

The fuel cock knob ① positions are explained as follows and are shown in the illustration.

OFF:

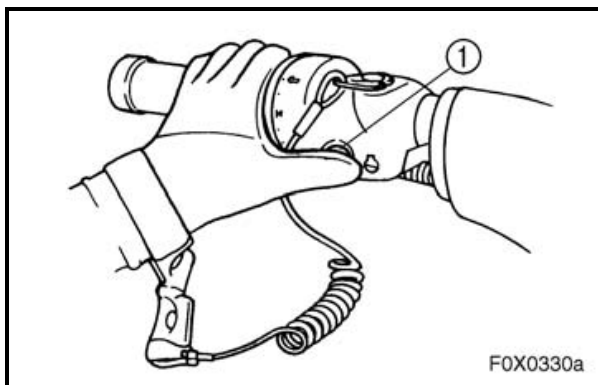
With the fuel cock knob in this position, fuel does not flow. Always turn the fuel cock knob to this position when the engine is not running.

ON:

With the fuel cock knob in this position, fuel flows to the carburetors. Turn the fuel cock knob to this position when starting the engine and operating the watercraft.

RES:

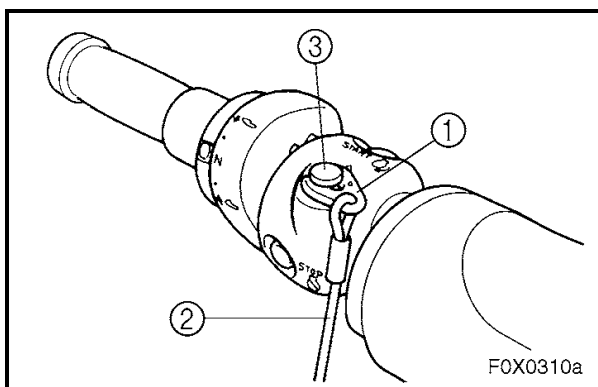
This indicates reserve. With the fuel cock knob in this position, the fuel reserve is made available. Turn the fuel cock knob to this position if you run out of fuel while operating the watercraft. When this occurs, refuel as soon as possible and be sure to turn the fuel cock knob back to "ON"!



EJU00705

Engine stop switch

Push this switch ① (red button) to stop the engine normally.



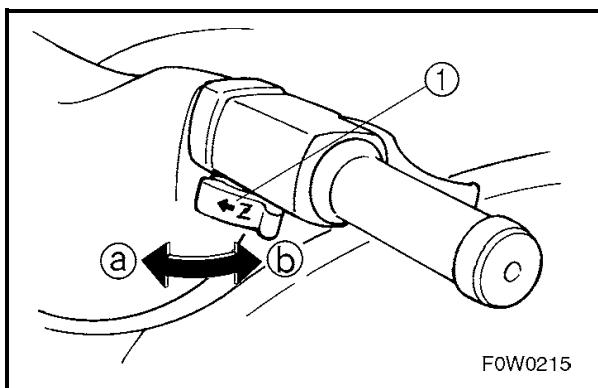
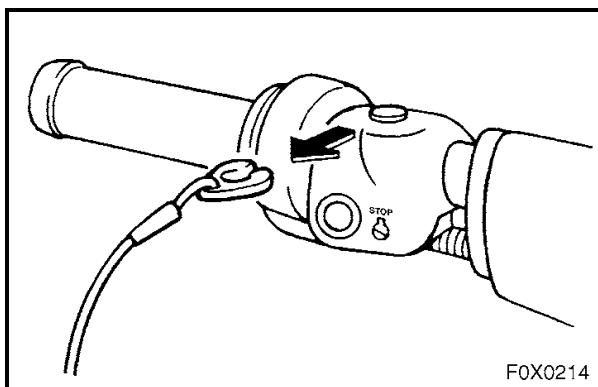
EJU00706

Engine shut-off switch

Insert the clip ①, on the end of the engine shut-off cord ②, under the engine shut-off switch ③ (black button). The engine will stop automatically when the clip is removed from the switch, such as if the operator falls off the watercraft.

⚠WARNING

- Always attach the engine shut-off cord to your wrist and the clip to the engine shut-off switch **BEFORE** starting the engine.
- To prevent accidental starting of the engine or unauthorized use by children or others, always remove the clip from the shut-off switch when the engine is not running.



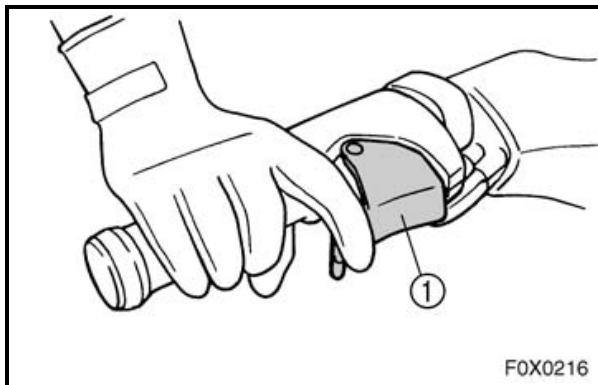
EJU00350

Choke lever

Starting a cold engine requires a richer air-fuel mixture, which is supplied by the choke.

Move the lever ① in direction ② to turn the choke on.

Move the lever in direction ③ to turn the choke off.

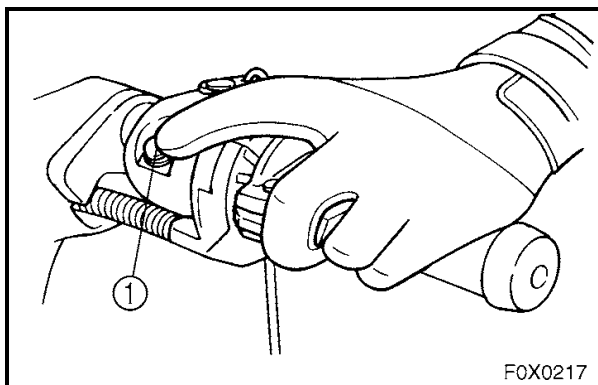


EJU00351

Throttle lever

Squeeze the throttle lever ① to increase engine speed.

Release the throttle lever to decrease engine speed or to return it to the idle position.

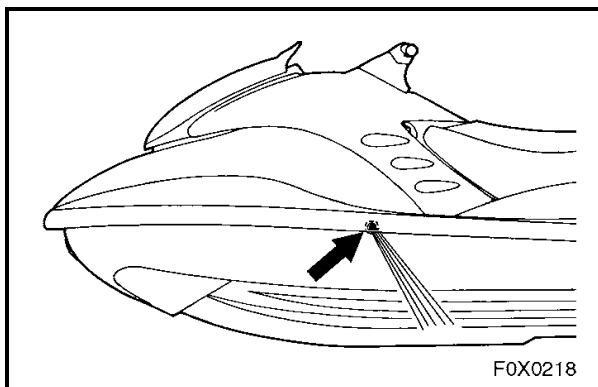


EJU00353

Start switch

Push the start switch ① (green button) to start the engine.

NOTE: _____
The engine will not start when the clip is removed from the engine shut-off switch.



EJU00354

Cooling water pilot outlet

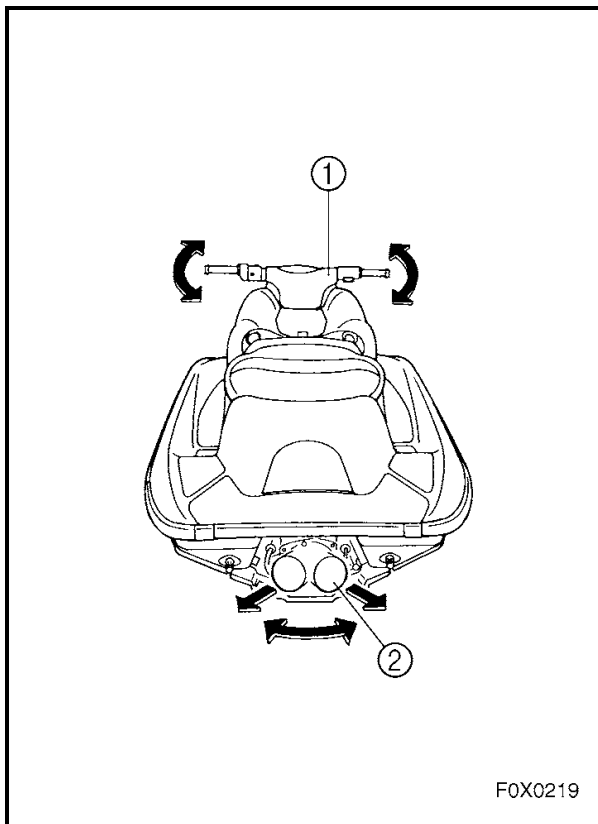
This watercraft is equipped with cooling water pilot outlets.

When the engine is running, cooling water is circulated in the engine, and then it is discharged from the pilot outlets.

To check for proper operation of the cooling system, check that water is being discharged from the pilot outlets. If water is not being discharged from the outlets, cooling water may not be circulating in the engine. When this occurs, stop the engine and check for the cause. (See pages 2-13 and 5-4 for further instructions.)

NOTE:

If the cooling water passages are dry, it will take about 20 seconds for the water to reach the outlets after the engine is started.



EJU00356

Steering system

Your watercraft can be steered by turning the handlebars ① the same direction you wish to travel.

When the handlebars are turned, the angle of the jet thrust nozzle ② is changed, and the direction of the watercraft is changed accordingly. Since the strength of the jet thrust determines the speed and direction of a turn, the throttle must always be open when attempting a turn, except at trolling speed.



EJU00360a

Quick Shift Trim System (QSTS) selector

The QSTS selector ① is located at the left handlebar grip and is used to adjust the trim angle of the watercraft.

Operating the QSTS selector changes the angle of the jet thrust nozzle vertically. This changes the trim angle of the watercraft.

There are 5 positions: 2 bow down positions ① and ②, neutral “N,” and 2 bow up positions ③ and ④.

To change the trim angle:

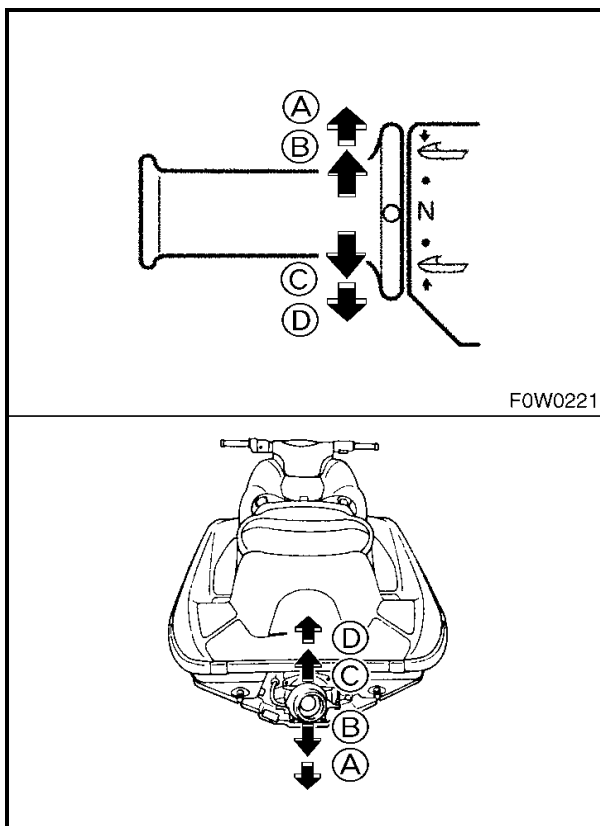
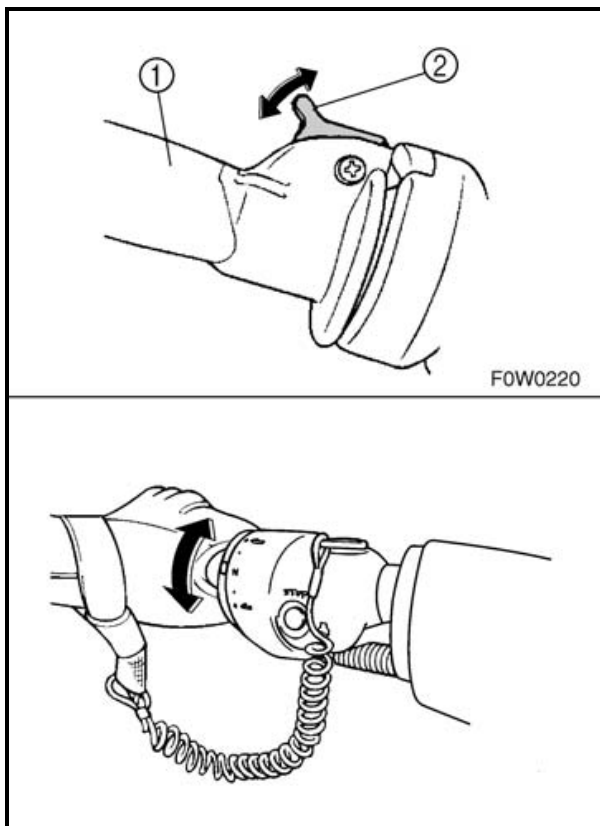
1. Reduce engine speed to 3,000 r/min or less.
2. Squeeze the shift lock lever ②, and then turn the QSTS selector to the desired position.
3. Release the shift lock lever to lock the QSTS selector.

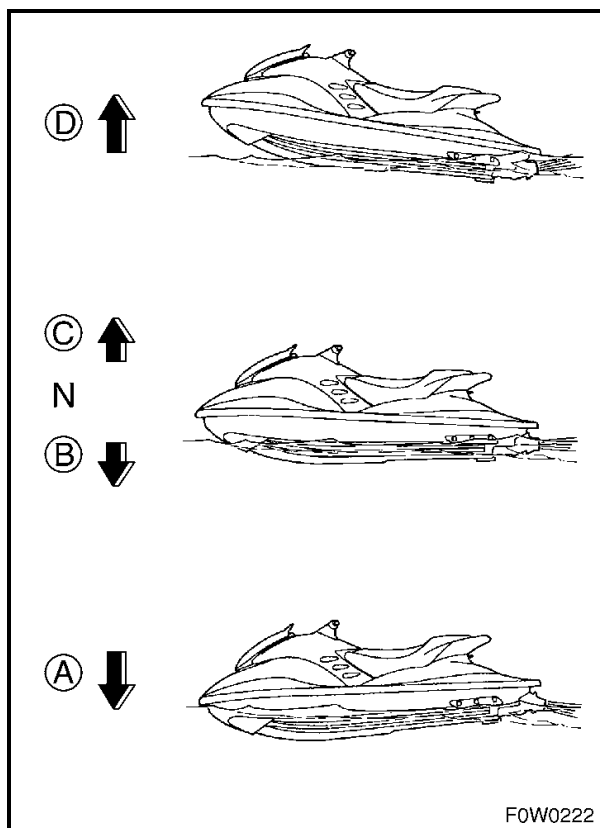
CAUTION:

Do not turn the QSTS selector while operating the watercraft at full throttle, otherwise damage could occur to the QSTS.

The neutral “N” position will provide good performance for most operating conditions.

To enhance particular types of performance, select bow down or bow up.





Bow down

Turn the grip to ① or ② and the bow will go down while the watercraft is on plane.

Bow down puts more of the bow in the water. This gives the watercraft more “hook,” which enhances turning performance. This position will also help the watercraft get up on plane more quickly.

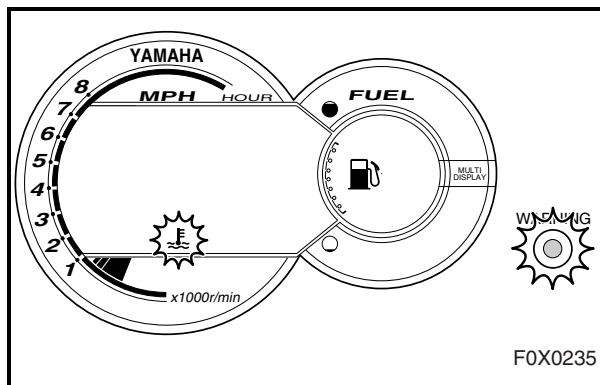
At higher speeds, however, the watercraft will have greater tendency to “bow steer” and follow waves and wakes in the water. Fuel economy and maximum speed are also reduced.

Bow up

Turn the grip to ③ or ④ and the bow will go up while the watercraft is on plane.

Bow up puts less of the bow in the water. There is less water resistance, so straight-ahead acceleration when on plane and top speed are enhanced.

In some conditions, however, the watercraft may tend to “porpoise” (hop in the water). If the watercraft is porpoising, choose neutral or bow down.



EJU00366

Engine overheat warning system

This model is equipped with an engine overheat warning system.

If the engine starts to overheat, the warning light and the engine overheat warning indicator begin to blink, and the buzzer sounds intermittently.

When this occurs, check for water discharge at the cooling water pilot outlet. If there is no discharge of water, reduce engine speed and beach the watercraft, and then check the intake grate and impeller for clogging.

⚠ WARNING

Before attempting to remove weeds or debris from the intake grate or impeller, 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.

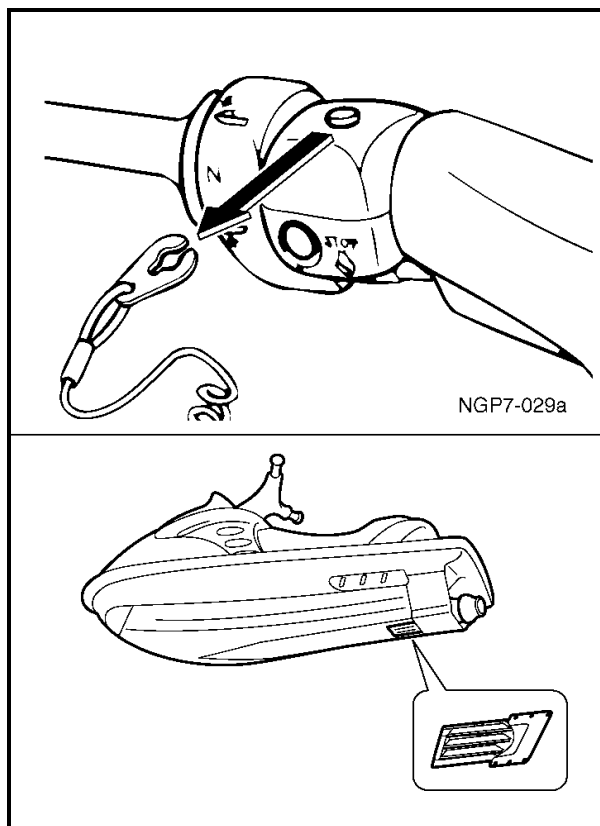
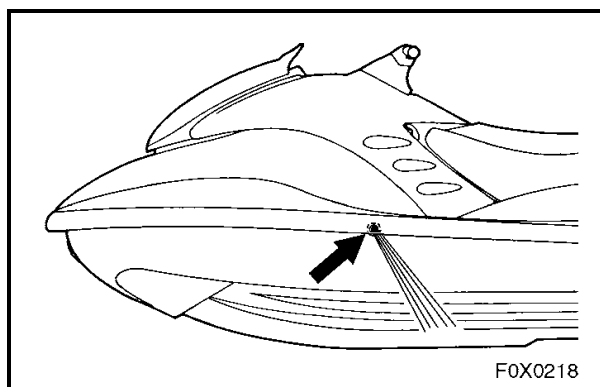
CAUTION:

This model is equipped with a catalytic converter.

- When the warning system is activated, reduce engine speed and beach the watercraft. If these signals are ignored, the engine will shut off and it cannot be started until the exhaust system cools.
- 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.

NOTE:

Press the reset button on the multifunction information center to stop the buzzer.





If the overheat warning is ignored, engine and exhaust system heat may increase, particularly if the watercraft is operated at higher speeds. When this occurs, the warning light and engine overheat warning indicator begin to blink rapidly, the buzzer sounds continuously, and the overheat system will stop ignition to the engine to reduce the risk of severe overheating. The engine cannot be started until it cools down, so it may be necessary to have the watercraft towed back to the beach. (See “Towing the watercraft” on page 5-7 for towing procedures.)

CAUTION:

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.

NOTE:

Press the reset button on the multifunction information center to stop the buzzer.

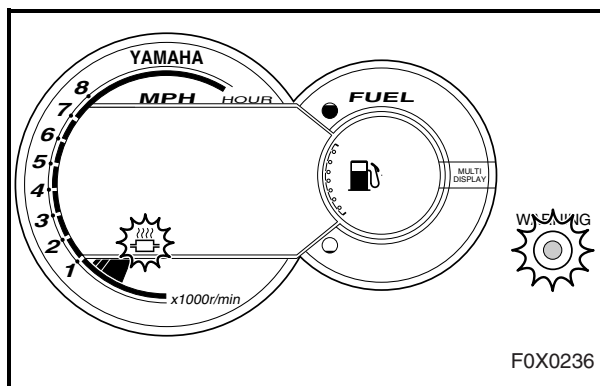
EJU00697a

Exhaust temperature warning system

This model is equipped with an exhaust temperature warning system.

If the exhaust temperature gets too hot, the warning light and exhaust temperature warning indicator begin to blink, and the buzzer sounds intermittently.

When this occurs, reduce engine speed and beach the watercraft to allow the exhaust system to cool down.



**⚠ WARNING**

- Hot muffler surfaces can cause serious burns. Do not touch any muffler surface during or after engine operation.
- The catalytic converter gets hotter after the engine stops.

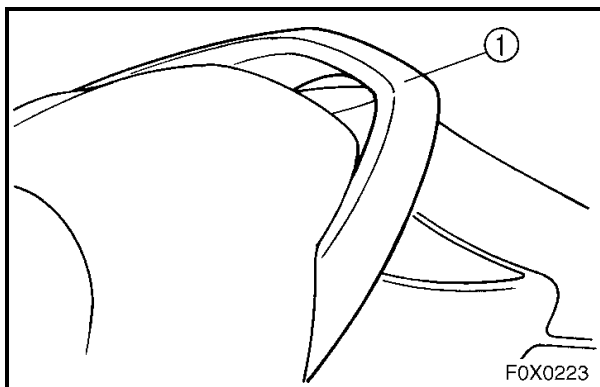
CAUTION:

This model is equipped with a catalytic converter.

- When the warning system is activated, reduce engine speed and beach the watercraft. If these signals are ignored, the engine will shut off and it cannot be started until the exhaust system cools.
- 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.

NOTE:

Press the reset button on the multifunction information center to stop the buzzer.



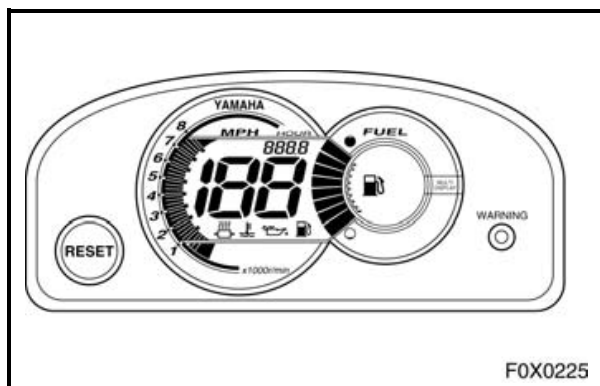
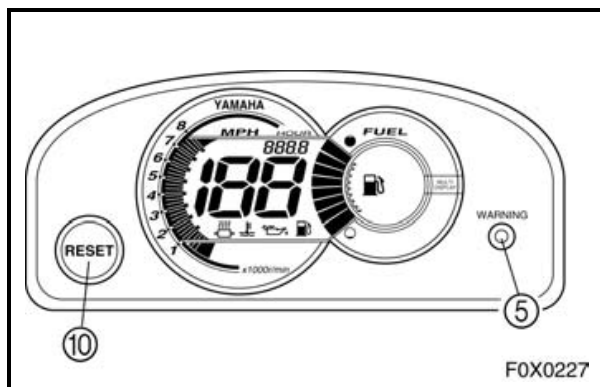
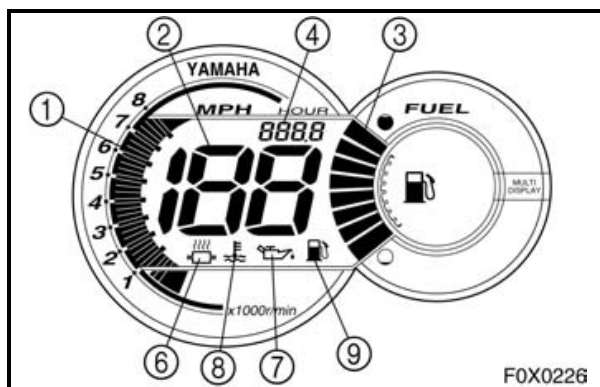
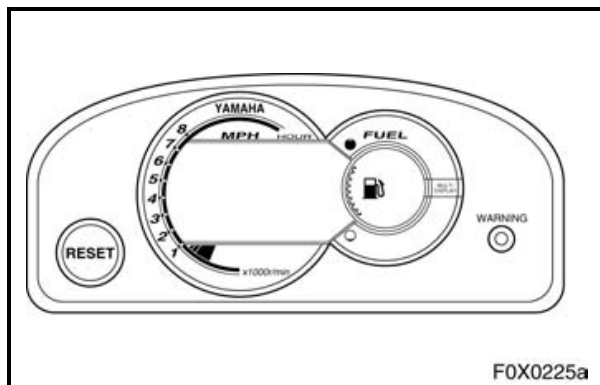
EJU00367a

Handgrip

The handgrip ① provides a handhold for boarding the watercraft.

CAUTION:

Do not use to tow objects, lift watercraft, or attach tie downs, otherwise damage could occur.



EJU00698a

Multifunction information center

This meter contains following functions for the help and convenience of operation.

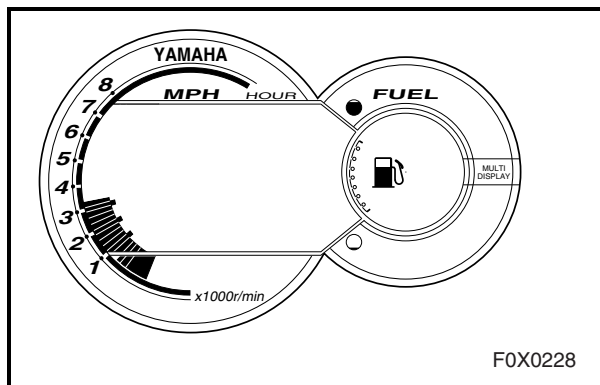
- ① Tachometer
- ② Speedometer
- ③ Fuel meter
- ④ Hour meter
- ⑤ Warning light
- ⑥ Exhaust temperature warning indicator
- ⑦ Oil warning indicator
- ⑧ Engine overheat warning indicator
- ⑨ Fuel warning indicator
- ⑩ Reset button

CAUTION:

- Do not run the engine over 4,000 r/min to check the meter for operation on land. The engine could overheat or the catalytic converter could result in serious damage.
- Use the specified resistor-type spark plug and cap, otherwise the meter may function erratically.

NOTE:

All display light up and the buzzer sounds twice after the engine starts. Then, the meter will operate normally after few seconds. The current display will continue to operate for 30 seconds after the engine stops.

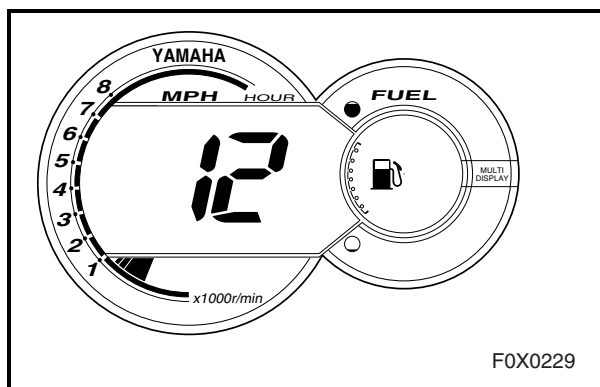


FOX0228

EJU00383

Tachometer

The engine speed (r/min) is displayed by segments. Each segment indicates a 250 r/min increment.



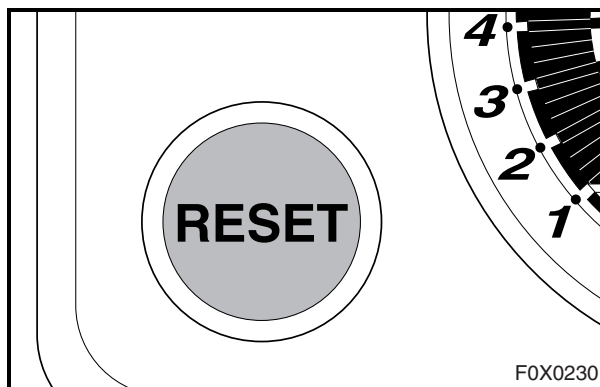
FOX0229

EJU00384a

Speedometer

The meter shows the vehicle speed against water.

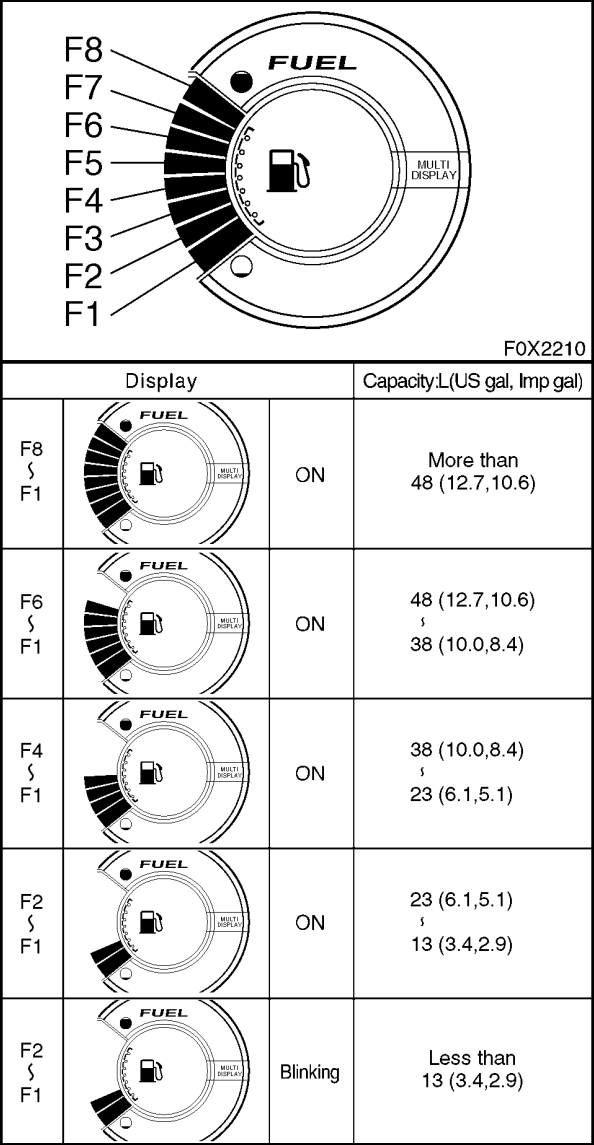
NOTE: _____
If the speedometer malfunctions, “_ _” display will blink.



FOX0230

Reset button

Pushing the reset button stops sounding the buzzer.

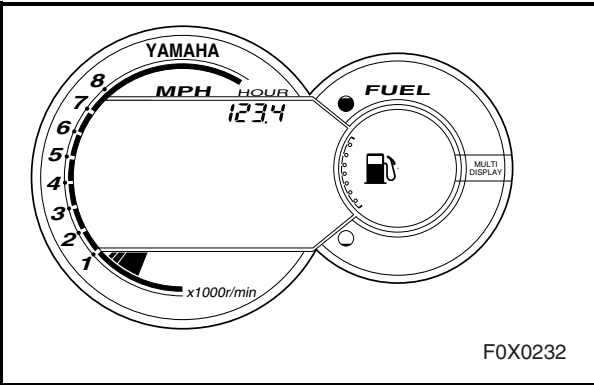


EJU00386a

Fuel meter

The fuel meter is provided for convenient fuel level checking while riding. The fuel meter has eight segments which show the amount of fuel remaining in the fuel tank.

NOTE: The indication of the segments differs on your operating condition. Use the meter as a reference.

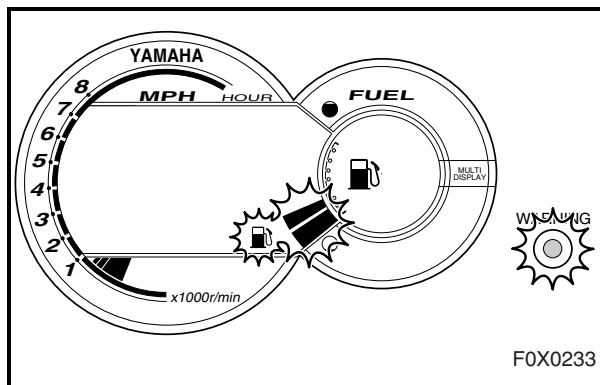


EJU00390a

Hour meter

The hour meter is provided to make it easy to follow the maintenance schedule. The meter shows the hours of engine operation that have elapsed since the vehicle was new.

- NOTE:**
- The elapsed time will be kept even if the battery terminals have been disconnected.
 - If the hour meter malfunctions, “ _ _ _ _ ” display and the warning light will blink.

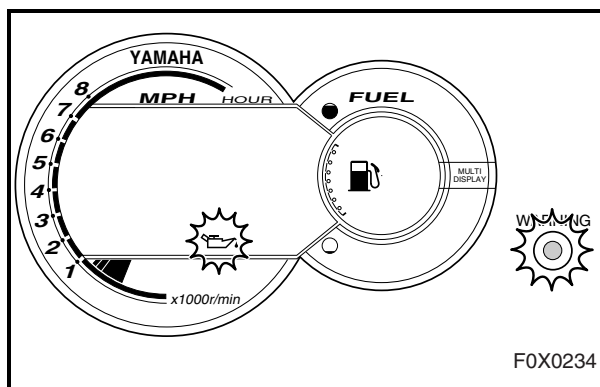


EJU00716a

Fuel warning indicator

If the fuel remaining in the tank drops to about 13 L (3.4 US gal, 2.9 Imp gal), the lowest two fuel level segments, the fuel warning indicator and the warning light begin to blink. The buzzer also starts sounding intermittently.

The warning signals will be cleared when the engine restarts after refilling fuel.



EJU00717a

Oil warning indicator

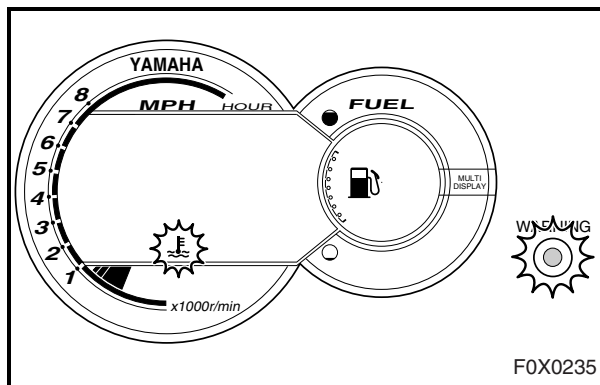
If the oil remaining in the tank drops to about 1.7 L (0.45 US gal, 0.37 Imp gal) or the oil filter is clogged, the oil warning indicator and the warning light begin to blink. The buzzer also starts sounding intermittently.

If the oil warning indicators begin to blink, refill with engine oil as soon as possible.

The warning signals will be cleared when the engine restarts after refilling engine oil.

NOTE:

If the warning indicators blink with adequate oil in the tank, check the oil filter for clogging.



EJU00718a

Engine overheat warning indicator

If the engine starts to overheat, the warning light and engine overheat warning indicator begin to blink, and the buzzer sounds intermittently.

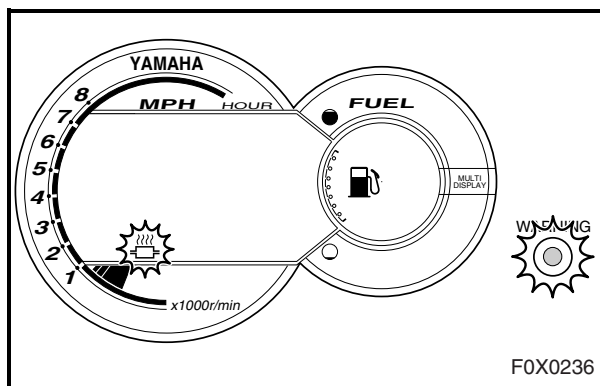
If the watercraft continues to be operated at higher speeds after the warning system has been activated, the warning light and engine overheat warning indicator begin to blink rapidly, and the buzzer sounds continuously. (See “Engine overheat warning system” on page 2-13 for further details.)

The warning signals will turn off when the engine is started after it has cooled down.

NOTE:

When the warnings overlap each other, their priority is as follows:

1. Final overheat warning
2. Fuel level warning
3. Oil level warning
4. Initial overheat warning
5. Exhaust temperature warning

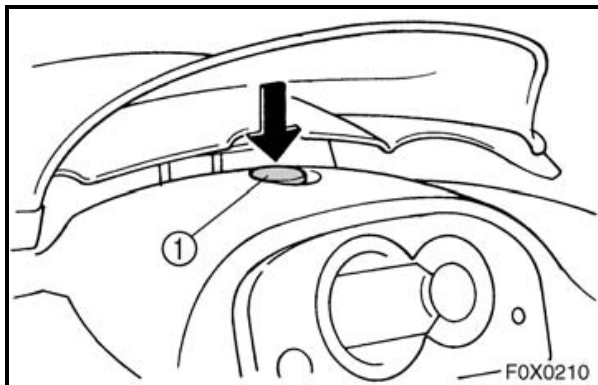


EJU00720a

Exhaust temperature warning indicator

If the exhaust system becomes too hot, the warning light and exhaust temperature warning indicator begin to blink, and the buzzer sounds intermittently. (See “Exhaust temperature warning system” on page 2-14 for further details.)

The warning signals will turn off when the engine is started after it has cooled down.



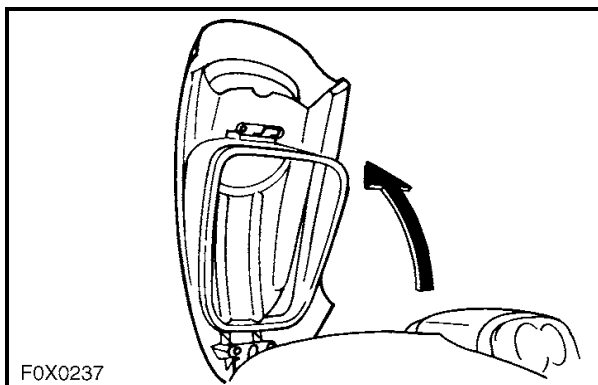
EJU00672a

Storage compartments

A front storage compartment and a glove compartment are provided.

NOTE:

- Make sure that the storage compartments are properly secured before operating the watercraft.
- The storage compartments are not designed to be waterproof. If you carry objects that must be kept dry, such as the manuals, put them in a waterproof bag.



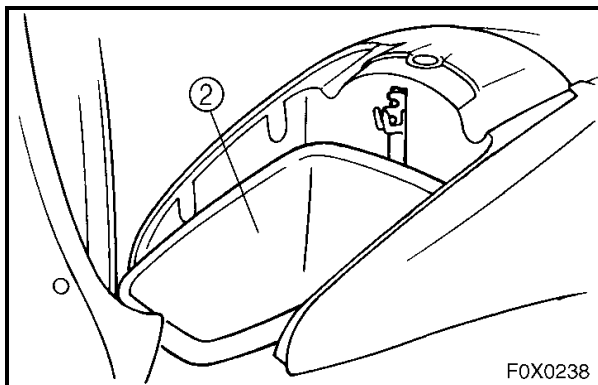
Front storage compartment

The front storage compartment (2) is located at the bow.

To open the front storage compartment, push the hood latch (1) down, and then open the hood.

NOTE:

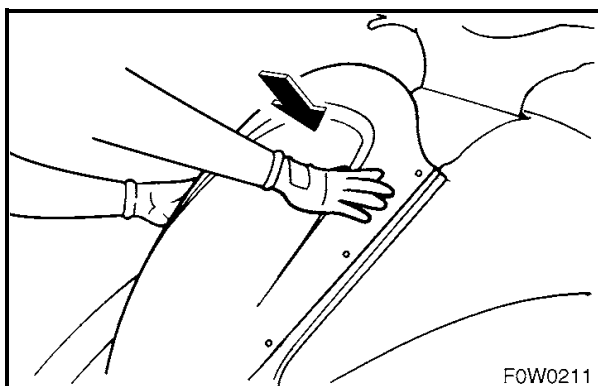
The front storage compartment can be removed to access the engine compartment.



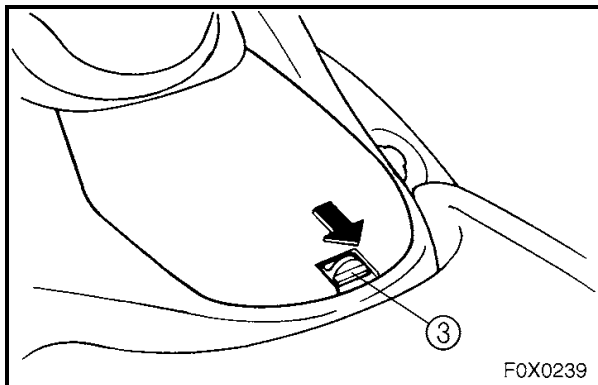
Front storage compartment:

Capacity: 16 L (4.2 US gal, 3.5 Imp gal)

Load limit: 5 kg (11 lb)



To close the front storage compartment, push down on the rear of the hood until it latches securely.



Glove compartment

A glove compartment ④ is located in front of the seat.

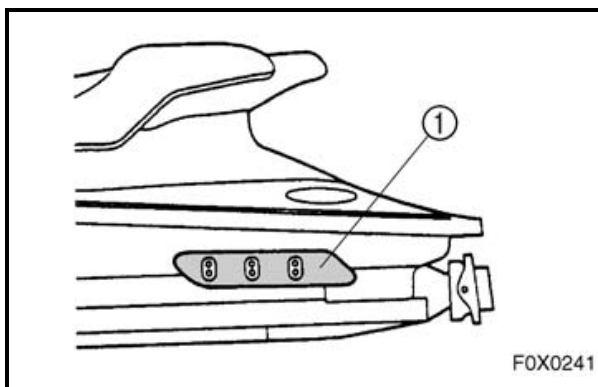
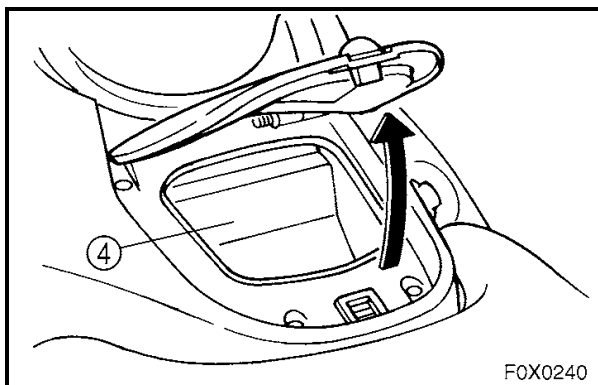
To open the glove compartment, slide the latch ③ toward you, and then lift up the lid.

To close the glove compartment, push the lid down until it locks securely.

Glove compartment:

Capacity: 2 L (0.53 US gal, 0.44 Imp gal)

Load limit: 1 kg (2.2 lb)



Yamaha Adjustable Sponson (Y.A.S.)

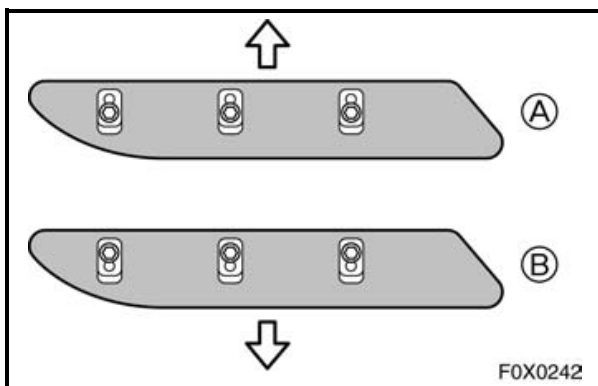
The sponsons ① have adjustable positioning to allow the operator to enhance either straight-line performance or turning performance according to the preference and operating conditions.

Adjusting to upward ①:

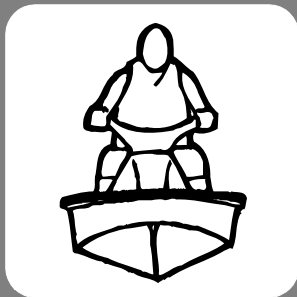
There will be less water resistance in this position, so straight-ahead acceleration when on plane and top speed will be enhanced.

Adjusting to downward ②:

This position will give the watercraft more “hook” which will enhance turning performance.



OPERATION



Fuel and oil	3-1
Gasoline	3-1
Filling the fuel tank	3-3
2-stroke engine oil.....	3-4
Filling the oil tank	3-4
Pre-operation checks	3-5
Pre-operation check list	3-5
Pre-operation check points.....	3-6
Operation	3-13
Engine break-in.....	3-13
Starting the engine.....	3-15
Stopping the engine.....	3-18
Leaving the watercraft	3-18
Operating your watercraft	3-19
Getting to know your watercraft.....	3-19
Learning to operate your watercraft	3-19
Riding watercraft with a passenger	3-20
Starting the watercraft.....	3-21
Boarding and starting in deep water	3-23
Capsized watercraft	3-25
Turning the watercraft.....	3-27
Stopping the watercraft.....	3-29
Beaching the watercraft.....	3-30
Docking the watercraft	3-30
Rough water operation	3-30
Post-operation checks	3-31
Transporting	3-33



Fuel and oil

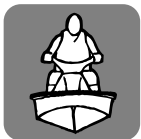
This engine uses Yamaha's oil injection system, which provides superior lubrication by ensuring the proper oil ratio for all operating conditions. No fuel premixing is necessary except during the engine break-in period. Simply pour gasoline into the fuel tank and oil into the oil tank.

Gasoline

⚠ WARNING

GASOLINE AND ITS VAPORS ARE HIGHLY FLAMMABLE AND EXPLOSIVE!

- Do not smoke when refueling, and keep away from sparks, flames, or other sources of ignition.
- Stop engine before refueling.
- Refuel in a well-ventilated area. Do not stand or sit on the watercraft while refueling in case of fire.
- Take care not to spill gasoline. If gasoline spills, wipe it up immediately with dry rags. Always properly dispose of gasoline-soaked rags.
- Avoid overfilling the fuel tank. Stop filling when the fuel level just reaches the bottom of the filler tube. Do not fill up the filler tube because fuel expands as it warms up and could overflow.
- Tighten the filler cap securely after refueling.
- If you should swallow some gasoline, inhale a lot of gasoline vapor, or get gasoline in your eyes, get immediate medical attention.
- If any gasoline spills onto your skin, immediately wash with soap and water. Change clothing if gasoline spills on it.

**CAUTION:**

- Do not use leaded gasoline. Leaded gasoline can seriously damage the catalytic converter.
- Use only fresh gasoline (petrol) that has been stored in clean containers.

Recommended gasoline:

Regular unleaded gasoline with

a minimum octane rating of

86 (Pump octane number) = $(R+M)/2$

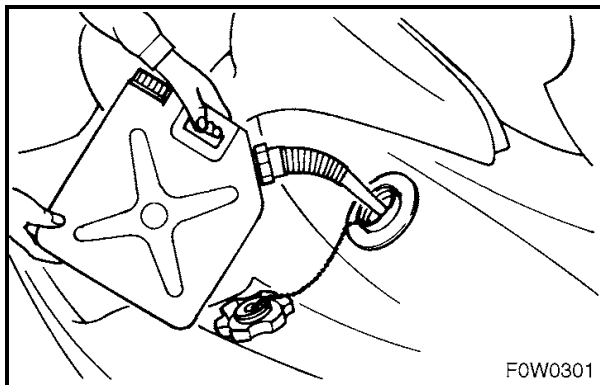
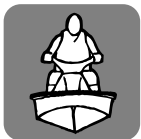
90 (Research octane number)

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 minimum octane ratings.

Gasohol containing methanol is not recommended by Yamaha because it can cause fuel system damage or engine performance problems.



EJU00724a

Filling the fuel tank

CAUTION:

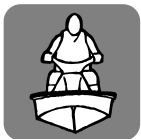
Be careful when refueling. Avoid getting water or other contaminants in the fuel tank. Contaminated fuel can cause poor running or engine damage.

1. Open the hood and remove the front storage compartment, to check the fuel level. (See page 2-22 for front storage compartment.)
2. Open the fuel tank filler cap, and slowly add fuel to the fuel tank.
3. Stop filling when the fuel just reaches the bottom of the filler tube on the fuel tank. Do not fill into the filler tube, because fuel could spill out.

Fuel tank capacity:

Total: 60 L (15.9 US gal, 13.2 Imp gal)

Reserve: 10 L (2.64 US gal, 2.20 Imp gal)



EJU00324a

2-stroke engine oil

CAUTION:

Use only **YAMALUBE 2-W** oil. Using another oil can seriously damage the catalytic converter and other engine components.

Recommended engine oil:
YAMALUBE 2-W oil only

NOTE:

YAMALUBE 2-W is developed for this watercraft and available from a Yamaha dealer.

EJU00419a

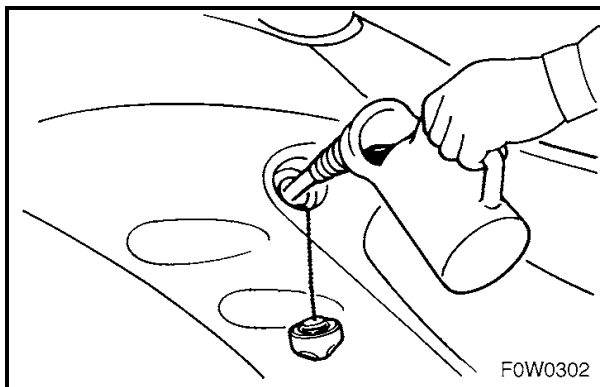
Filling the oil tank

WARNING

- Do not add gasoline to the oil tank. Fire or explosion could result.
- Oil in the bilge is a serious fire hazard. Wipe up any spilled oil immediately.

CAUTION:

Do not allow the oil tank to become completely empty. If the oil tank becomes empty the oil injection pump must be bled to ensure proper oil flow, otherwise engine damage may occur. If bleeding of the oil pump is necessary, have a Yamaha dealer bleed it.



1. Remove the seat to watch the oil level. (See page 2-5 for seat.)
2. Open the oil tank filler cap, and very slowly add engine oil to the oil tank.
3. Stop filling when the oil just reaches the top of oil tank visible.

Oil tank capacity:
5.5 L (1.45 US gal, 1.21 Imp gal)



Pre-operation checks

Pre-operation check list

Before operating this watercraft, perform the checks in the following check list. See the accompanying text in this chapter for details on how to perform the checks.

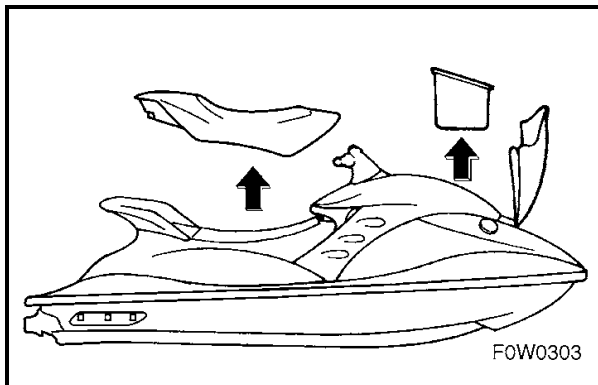
⚠ WARNING

If any item in the pre-operation check list is not working properly, have it inspected and repaired before operating the watercraft, otherwise an accident could occur.

ITEM	ROUTINE	PAGE
Engine compartment	Remove the seat and front storage compartment to ventilate engine compartment. Check for fuel vapors or loose electrical connections	3-6
Bilge	Check for water and fuel residue and remove if necessary	3-7
Throttle	Check that the throttle lever springs back	3-10
Steering system	Check for proper steering system operation	3-10
Fuel and oil	Check fuel and oil level and add if necessary Check hoses and tanks for leakage	3-6
Water separator	Check for water and drain if necessary	3-7
Battery	Check electrolyte level and battery condition	3-8
Hood	Check that the hood is properly secured	2-6
Seat	Check that the seat is properly secured	2-5
Hull/Deck	Check the hull and deck for cracks or other damage	—
Jet unit	Check for debris and remove if necessary	3-11
Fire extinguisher	Check the condition and replace if necessary	3-9
Engine shut-off cord	Check condition and replace if frayed or broken	3-11
Switches	Check the start switch, engine stop switch and engine shut-off switch for proper operation when the watercraft is in the water	3-12
Cooling water pilot outlet	Check that water is discharged while the engine is running and the watercraft is in the water	3-12
Multifunction information center	Check for warning indications and proper operation	3-12

NOTE:

Pre-operation checks should be made thoroughly each time the watercraft is used. This procedure can be completed in a short time. It is worth the time spent to assure safety and reliability.



EJU00426

Pre-operation check points

Engine compartment

Ventilate the engine compartment before each use.

To ventilate the engine compartment, remove seat and front storage compartment. (See page 2-5 for seat, and 2-22 for front storage compartment.) Allow the engine compartment to remain open for a few minutes to allow any fuel vapors to escape. Also, check for loose electrical connections.

⚠ WARNING

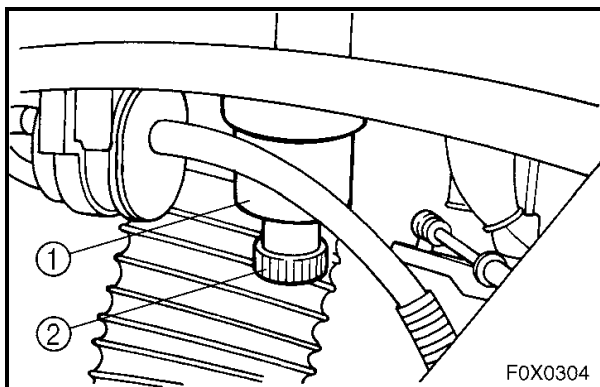
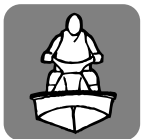
Failure to ventilate the engine compartment could result in fire or explosion. Do not start the engine if there is a fuel leak or a loose electrical connection.

EJU00427-30a

Fuel and oil systems

Check the fuel system for leakage, cracks or malfunctions before each use. (See page 4-9 for check points and correct procedures.)

1. Remove the fuel tank filler cap to release any pressure that might have built up in the fuel tank.
2. Remove seat and front storage compartment. (See page 2-5 for seat, and 2-22 for front storage compartment.)
3. Check the fuel and oil levels in the tanks and replenish if necessary. (See pages 3-3 and 3-4 for filling instructions.)
4. Turn the fuel cock to the "ON" position.



EJU00432a

Water separator

Check the water separator ① for water. Normally the water separator is empty. The water separator retains any water entering through the fuel tank breather hose if the watercraft is capsized.

If water remains in the water separator, drain it by removing the drain screw ②. Install the drain screw again after draining the water separator.

EJU00433a

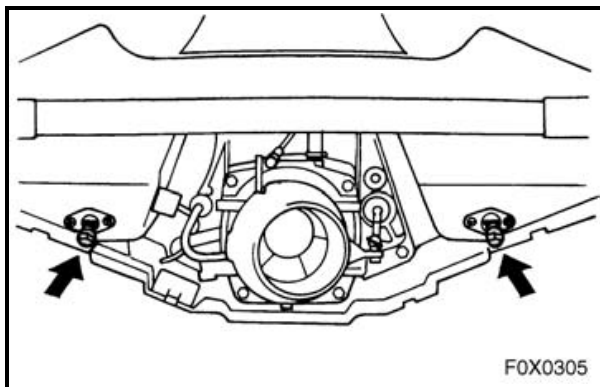
Bilge

Check for moisture and fuel residue in the bilge.

Excessive water in the bilge can splash into the carburetor and engine which could cause engine damage.

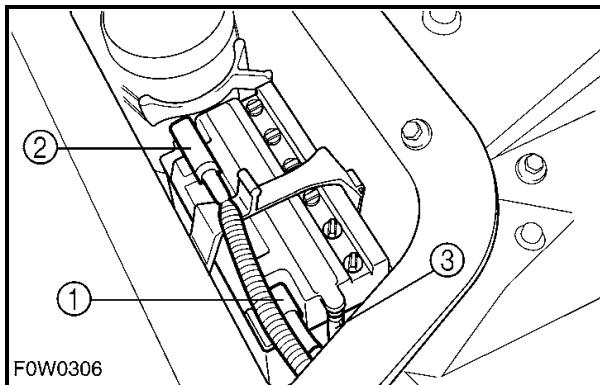
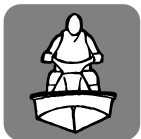
To remove water from the bilge:

1. Remove the stern drain plugs.
2. Raise the bow of the watercraft until the water drains.
3. After the water has drained, wipe the bilge with dry rags to make sure that the bilge is thoroughly dry.
4. Install the drain plugs.



CAUTION:

- Make sure that the stern drain plugs are tightened securely before launching the watercraft.
- Clean any foreign materials, such as dirt or sand, from the drain plug threads before installing the drain plugs.



EJU00435a

Battery

Check the battery condition and the electrolyte level.

Check that the battery leads are tightened securely and there is no corrosion on the battery terminals.

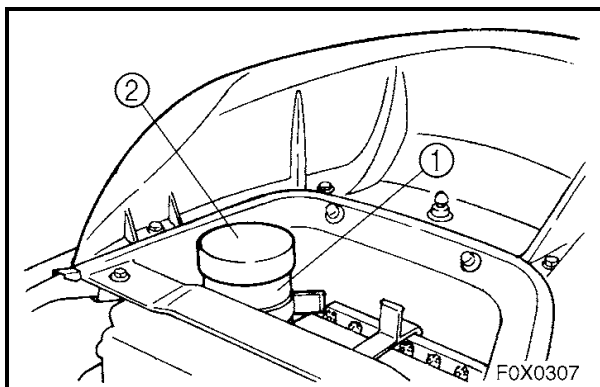
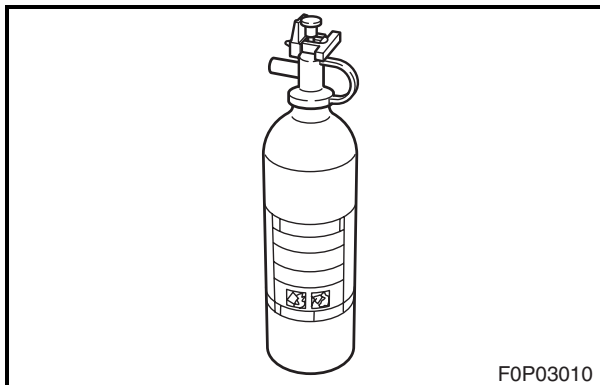
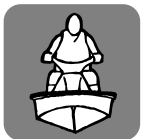
⚠WARNING

The battery must always be fully charged and in good condition. Loss of battery power may leave you stranded. 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.

Make sure that the breather hose is properly connected and that it is not damaged or obstructed.

Make sure that the battery is securely held in place.

- ① Positive (+): Red lead
- ② Negative (-): Black lead
- ③ Breather hose



EJU00728

Fire extinguisher

Check that there is a full fire extinguisher on board. The fire extinguisher container ① is located in the battery compartment.

To open the fire extinguisher container cap ② remove the seat and turn it counter-clockwise.

After inserting the fire extinguisher make sure that the container cap is tightened securely.

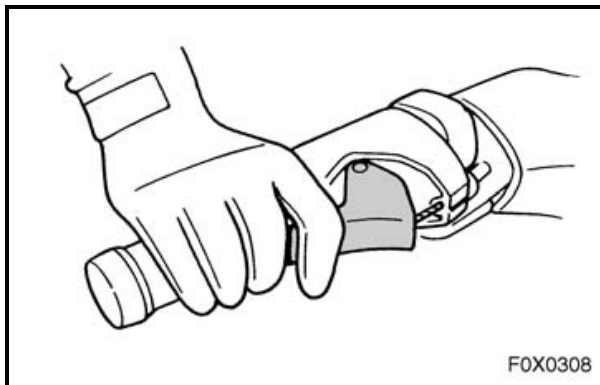
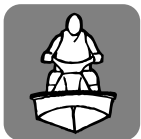
NOTE:

- See the instructions supplied by the fire extinguisher manufacturer for checking the fire extinguisher. Always keep the extinguisher in the fire extinguisher container.
- 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



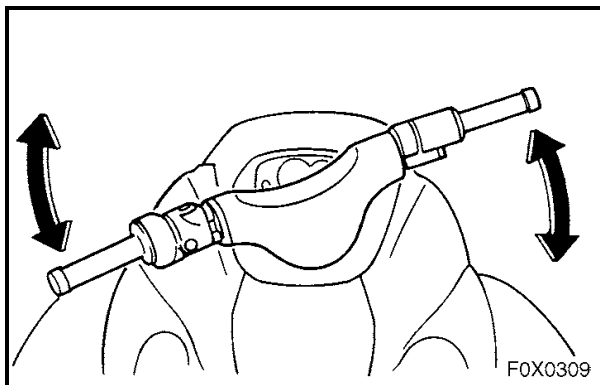
EJU00447

Throttle

Squeeze and release the throttle lever several times to make sure that there is no hesitation in its travel. It should be smooth over the complete range, and spring back to the idle position when released.

⚠WARNING

Before starting the engine, always check the operation of the throttle lever. It should move smoothly through its full range of operation, and should spring back to the idle position when released.

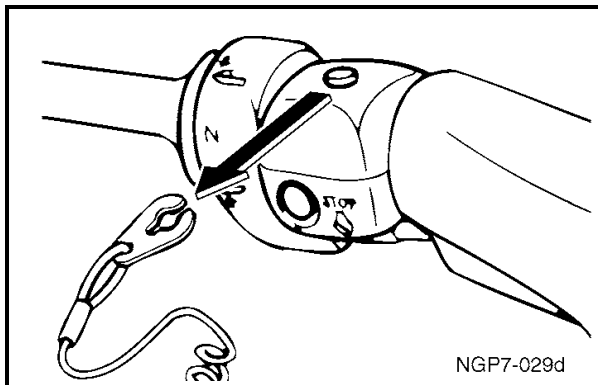
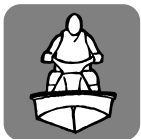


EJU00448

Steering system

Check for looseness in the handlebars.

Turn them as far as possible to the right and left to make sure that operation is smooth and unrestricted throughout the whole range. Make sure that the jet thrust nozzle also changes directions as the handlebars are turned, and that there is no free play between the handlebars and the jet thrust nozzle.



EJU00451a

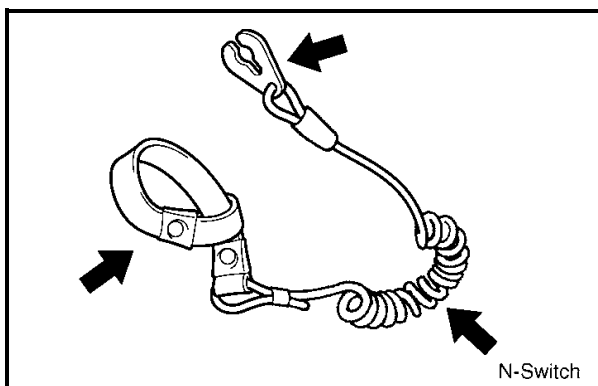
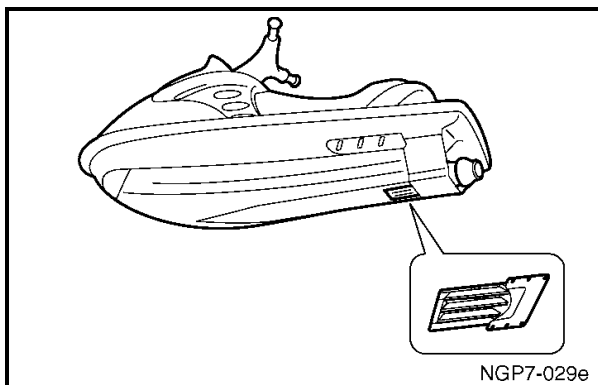
Jet unit

Carefully check the jet intake for weeds, debris, or anything else that might restrict the intake of water. If the intake is clogged, cavitation could occur, reducing jet thrust, and possibly damaging the jet pump.

In some cases, the engine may overheat because of lack of cooling water, and damage to the engine could result. Engine cooling water is fed to the engine by the jet pump. (See page 5-4 for jet intake cleaning procedures.)

⚠ WARNING

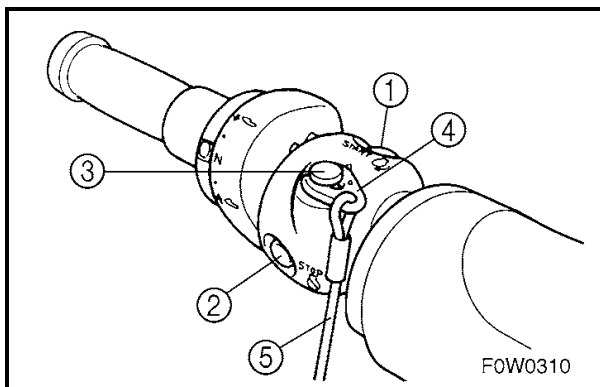
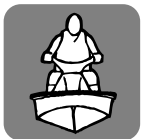
- Keep away from intake grate while engine is on. Items such as long hair, loose clothing, or PFD straps can become entangled in moving parts resulting in severe injury or drowning.
- Stop the engine and remove the clip from the engine shut-off switch before removing any debris or weeds, which may have collected around the jet intake.



EJU00004n

Engine shut-off cord (lanyard)

Check that the engine shut-off cord is not frayed or broken. If the cord is damaged, replace it; never try to repair it or tie it together.

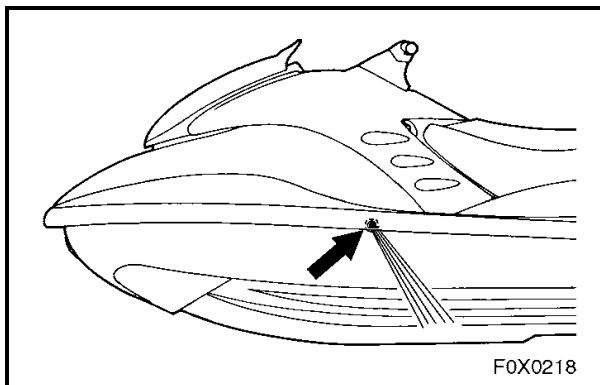


EJU00452a

Switches

Check the start switch ①, the engine stop switch ②, and the engine shut-off switch ③ for proper operation.

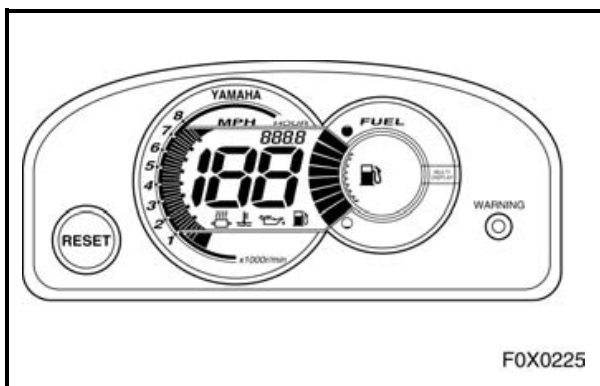
To check these switches place the watercraft in the water to provide adequate cooling. Start the engine, and then pull the engine shut-off cord ⑤ to remove the clip ④ from the engine shut-off switch. Verify that the engine stops immediately. (See pages 3-15 to 3-18 for information on proper operation of the start switch, the engine stop switch and the engine shut-off switch.)



EJU00453

Cooling water pilot outlet

Check that water comes out from the outlets while the engine is running and the watercraft is in the water.



EJU00454

Multifunction information center

Check the operation of the multifunction information center. (See pages 2-17 to 2-21 for multifunction information center.)

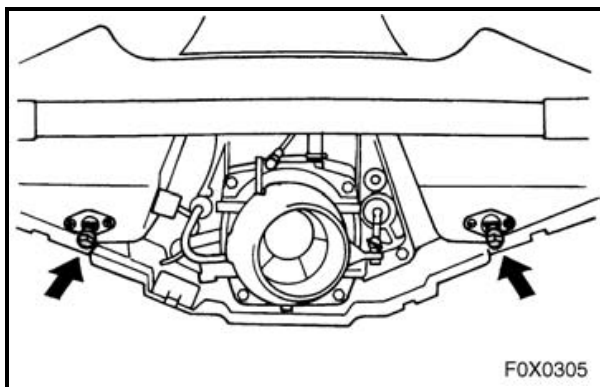


EJU00676a

Operation

⚠WARNING

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



CAUTION:

Make sure that stern drain plugs are securely tightened before launching the watercraft.

EJU00459

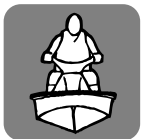
Engine break-in

The engine break-in period 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.

CAUTION:

- For the first tankful of operation, pre-mix a 50:1 mixture of fuel and oil (in addition to the oil in the oil tank).
- After break-in, use straight gasoline for normal operation.

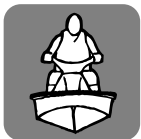
1. Launch the watercraft and start the engine. (See pages 3-15 to 3-17 for engine starting procedures.)
2. Run the engine at the lowest possible speed for 5 minutes.



3. Gradually open the throttle and run the engine at 5,000 r/min or less.
4. Continue operation at 5,000 r/min or less until the first tankful of fuel has been used.
5. Fill the tank with straight gasoline, and then proceed with normal operation.

CAUTION:

Failure to follow the engine break-in procedure properly can result in severe damage to the engine.

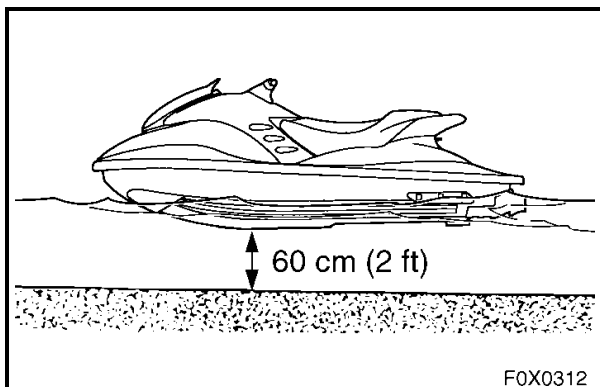


EJU00645a

Starting the engine

⚠ WARNING

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.



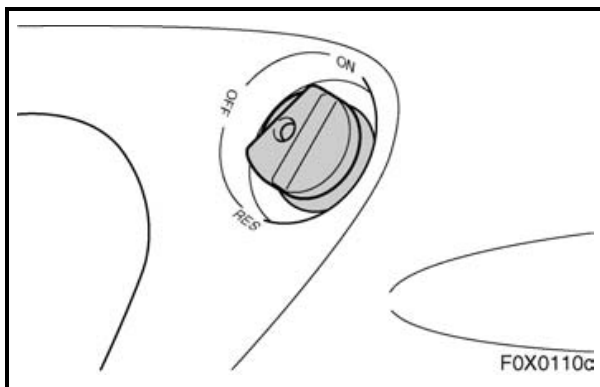
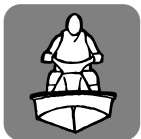
1. Launch the watercraft in water free from weeds and debris and at least 60 cm (2 ft) deep.

⚠ WARNING

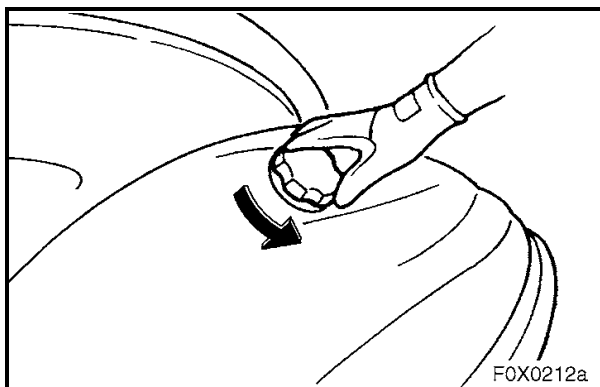
Never operate in water that is less than 60 cm (2 ft) deep, otherwise you increase your chance of hitting a submerged object, which could result in injury.

CAUTION:

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



2. Turn the fuel cock knob to the "ON" position.

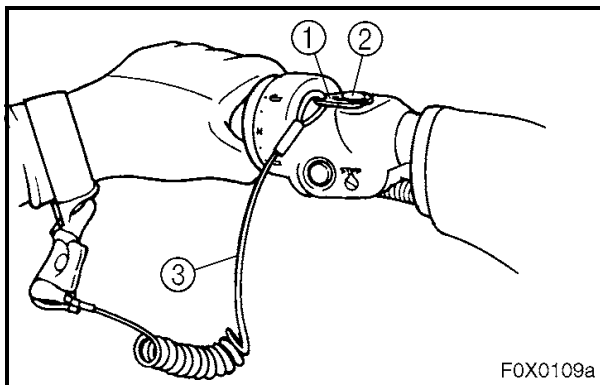
**NOTE:**

Before starting the watercraft, after it has been sitting, remove the fuel tank filler cap to release any built-up pressure in the tank due to fuel expansion.

3. Attach the clip ① to the engine shut-off switch ②. Also, attach the engine shut-off cord ③ to your left wrist.

⚠WARNING

Check that the engine shut-off cord is not frayed or broken, and keep it free from the handlebars so the engine stops if the operator falls off. The engine shut-off cord may not pull free if wrapped around the handlebars when the operator falls off, allowing the watercraft to continue to run and cause an accident.

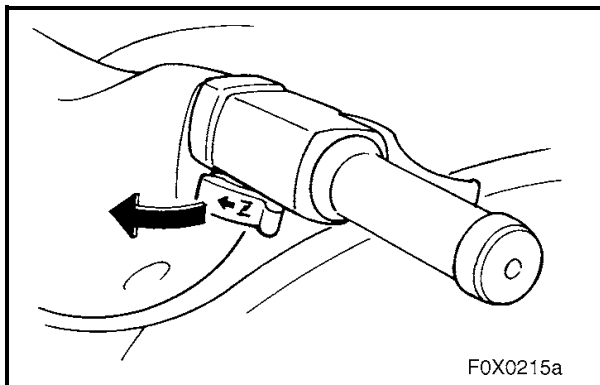
**NOTE:**

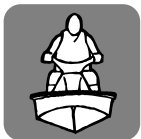
It is not possible to start the engine with the clip removed from the engine shut-off switch.

4. Move the choke lever all the way in the direction of the arrow to start a cold engine.

NOTE:

The choke should not be used when the engine is warm.

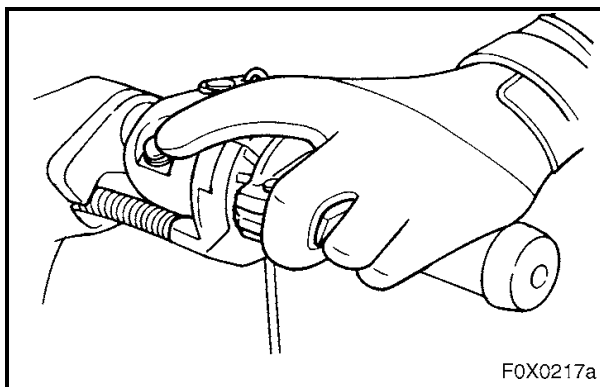




5. While lightly squeezing the throttle lever, push the start switch (green button).

⚠ WARNING

On this watercraft, the engine is connected directly to the jet pump. Starting the engine immediately generates some thrust. Apply only enough throttle to keep the engine running.



6. Release the start switch as soon as the engine starts to run.

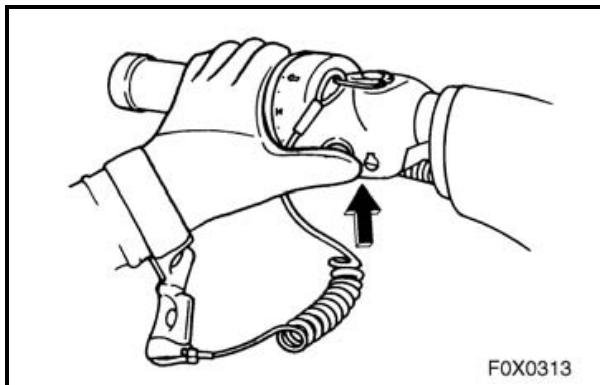
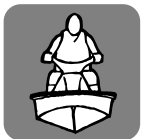
CAUTION:

- 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 may be damaged. If the engine does not start in 5 seconds, release the start switch, wait 15 seconds, and try again.

7. After the engine has warmed up, move the choke lever back to its original position.

NOTE:

If the choke lever is left turned on, the engine will stall.



EJU00463a

Stopping the engine

To stop the engine, release the throttle lever, and then push the engine stop switch (red button).

⚠WARNING

You need throttle to steer. Shutting off the engine can cause you to hit an obstacle you are attempting to avoid. A collision could result in severe injury or death.

EJU00005n

Leaving the watercraft

If leaving the watercraft, remove the engine shut-off cord to reduce the chance of accidental starting or unauthorized use by children or others.



EJU00674

Operating your watercraft

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 warning and caution labels on the watercraft. Pay particular attention to the safety information on pages 1-8 to 1-14. 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 one passenger. Never exceed the maximum load limit or allow more than 2 persons to ride the watercraft at one time.

Maximum load: 160 kg (353 lb)

Load is the total weight of cargo, operator and passenger.

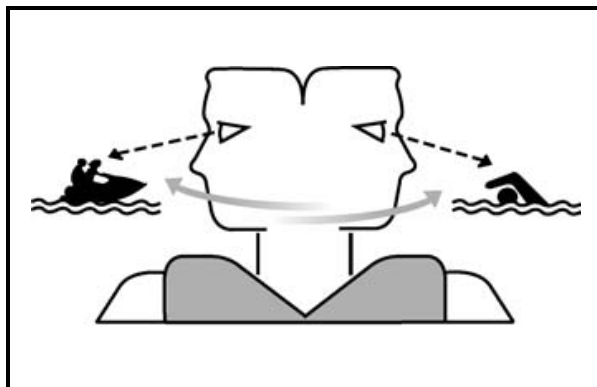
EJU00474

Learning to operate your watercraft

Before operating the watercraft, always perform the pre-operation checks listed on page 3-5. 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 you have 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.

Attach the engine shut-off cord (lanyard) to your wrist and keep it free from the handlebars so that the engine stops if the operator falls off.

Wear a personal flotation device (PFD). All riders must wear a Coast Guard approved PFD that is suitable for personal watercraft use.



Wear protective clothing. Severe internal injuries can occur if water is forced into body cavities as result of falling into the water or being near the jet thrust nozzle. Normal swimwear does not adequately protect against forceful water entry into rectum and 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. A full wetsuit can also protect against hypothermia (subnormal body temperature) and abrasions.

Footwear and gloves are recommended.

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.

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.

The passengers must always wear USCG approved PFD and wetsuit bottom or equivalent.

⚠ WARNING

Do not apply throttle when anyone is at rear of watercraft. Turn engine off or keep engine at idle. Water and/or debris exiting the jet thrust nozzle can cause severe injury. The passenger should not attempt to board the watercraft if the operator is applying throttle.

Do not give a ride to a child whose feet cannot reach the floor of the footwell. The passenger should hold on firmly to the operator and keep both feet in the footwell.

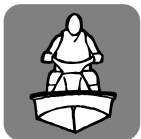
⚠ WARNING

When a passenger is on board, make sure that he or she is holding on firmly and has his or her feet in the footwell before you start to accelerate.

EJU00736

Riding watercraft with a passenger

When a passenger is on board with the operator, the watercraft handles differently, and is not as easy to maneuver, so operating it requires a higher degree of skill. Before attempting to operate the watercraft with a passenger on board, the operator must practice operating the watercraft alone enough to be able to acquire the necessary skills.

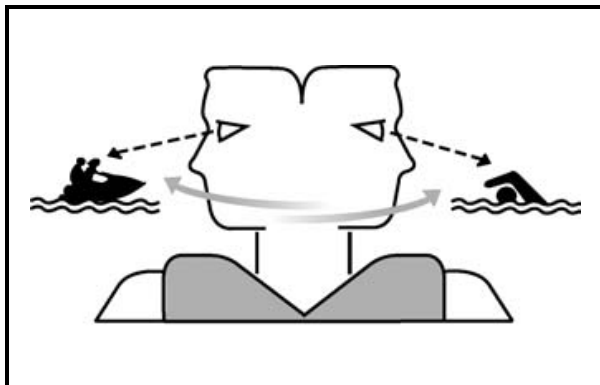


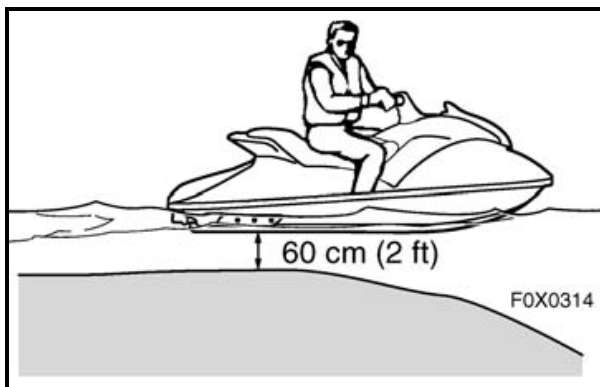
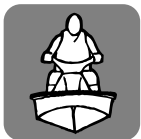
EJU00484

Starting the watercraft

⚠ WARNING

- 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 when trying to steer away from objects—you need throttle to steer.
- Practice reboarding in shallow water before riding in deep water.





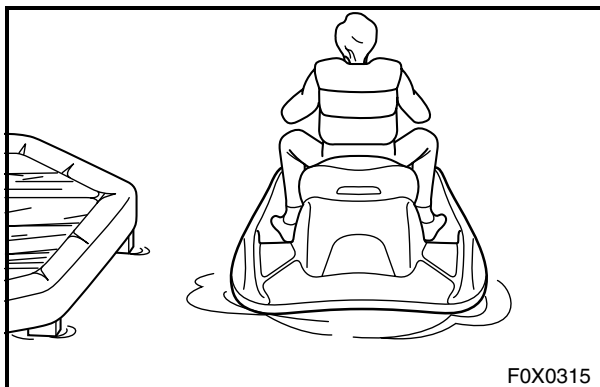
EJU00486a

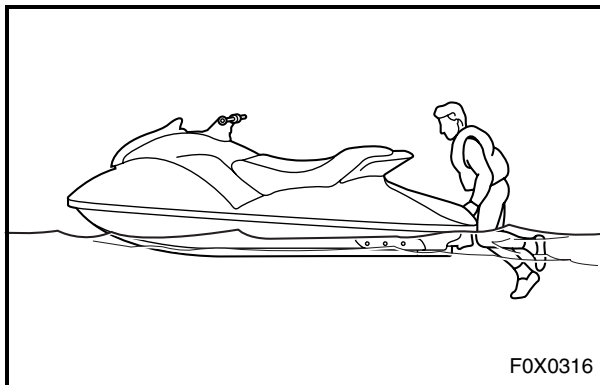
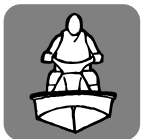
Starting and boarding in shallow water

1. Do not start the engine in less than 60 cm (2 ft) of water. Put the watercraft in water that is deep enough, and then board the watercraft from the side or the rear.
2. Attach the engine shut-off cord to your left wrist, and then install the clip to the engine shut-off switch.
3. Grip the handlebars with both hands, place both feet on the floor of the foot-well, start the engine, and start off.

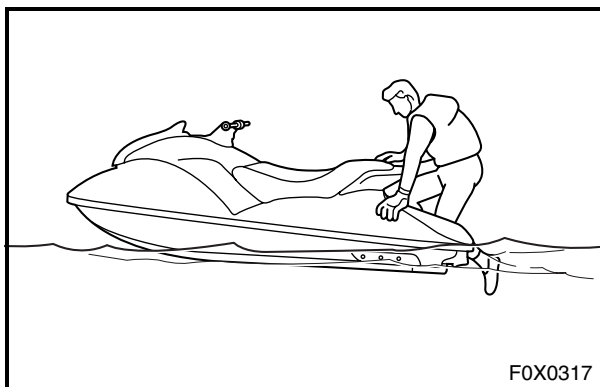
Starting from a dock

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

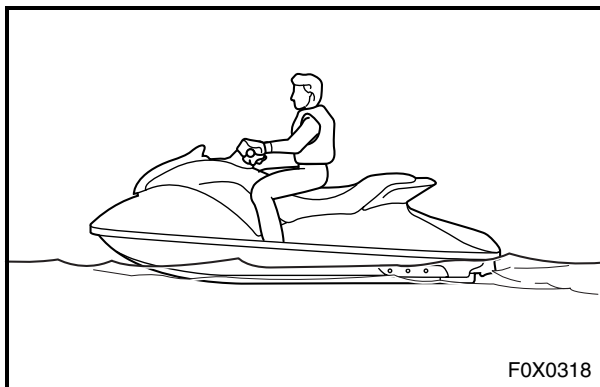




FOX0316



FOX0317



FOX0318

EJU00490a

Boarding and starting in deep water

⚠ WARNING

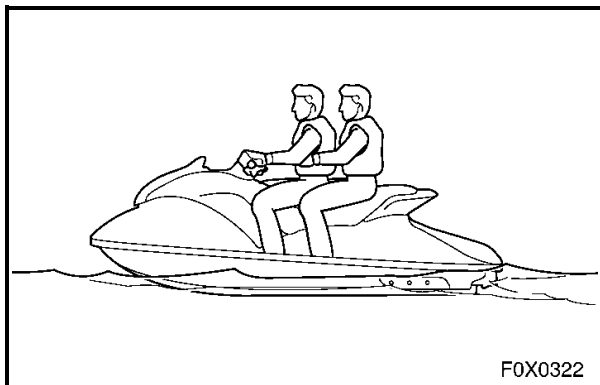
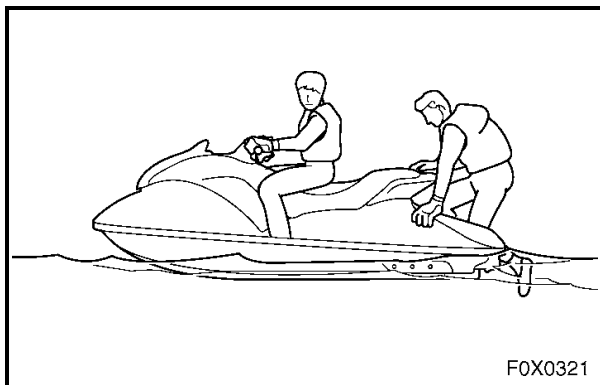
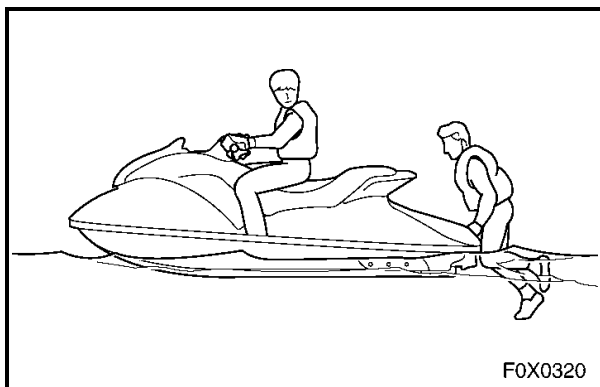
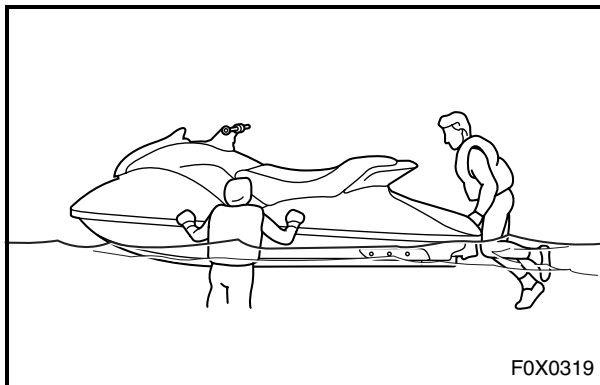
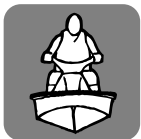
- Operator and passenger should practice getting on board in shallow water before riding in deep water. Boarding in deep water requires more skill.
- The fatigue and exposure that could result after unsuccessful attempts to get back on the watercraft may increase the risk of injuries and drowning.

Boarding alone

1. Swim to the rear of the watercraft and 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 platform, and then move to the seat and sit astride.
3. Attach the engine shut-off cord to your wrist, and then install the clip to the engine shut-off switch.
4. Grip the handlebars firmly with both hands, place both feet in footwell, start the engine, and look in all directions before starting off.

⚠ WARNING

Before starting off, make sure that there are no boats, obstructions, or swimmers around you.



EJU00737a

Boarding with a passenger

⚠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 apply throttle until the passenger is seated with his or her feet on the floor of the footwell and is holding on to the operator.

1. Climb on board as noted in the previous section, and sit astride the seat. Attach the engine shut-off cord to your wrist, and then install the clip to the engine shut-off switch.
2. Have the passenger move to the rear of the watercraft.
3. Have the passenger get on board and sit on the seat.

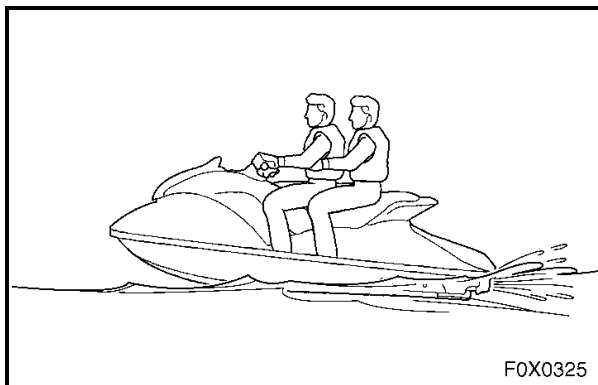
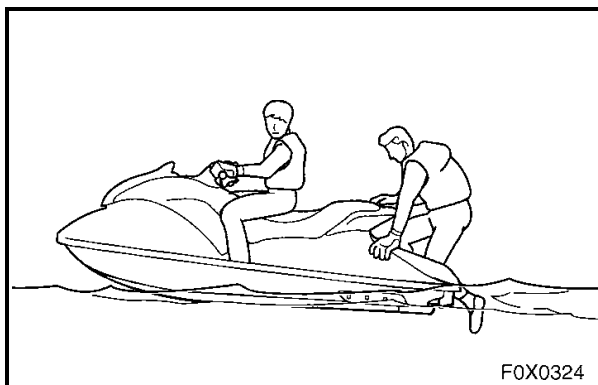
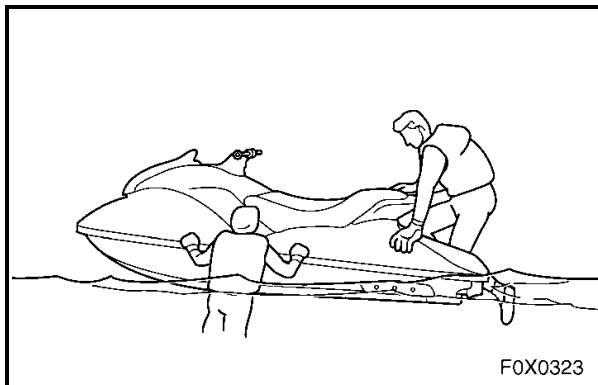
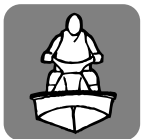
NOTE:

When a passenger is getting on board, both the passenger and the operator should try to balance the watercraft.

4. The operator should check to see that the passenger has his or her feet on the floor of the footwell and that he or she is securely holding on to the operator.
5. Start the engine, look in all directions, and then accelerate to planing speed.

⚠WARNING

Before starting off, make sure that there are no boats, obstructions, or swimmers around you.

**NOTE:**

The heavier the total weight of the operator and passengers, the more difficult it will be to balance the watercraft. Do not operate the watercraft when the total weight exceeds 160 kg (353 lb) including any cargo. If it is difficult to balance the vehicle at a standstill, proceed as follows:

1. The passenger must steady the watercraft while the operator is boarding. The operator pulls himself up onto the platform into a seating position, then balances the vehicle.
2. Attach the lanyard to your left wrist, then install the clip on the lanyard to the engine shut-off switch. Start the engine and keep it at idle.
3. The passenger pulls himself up on the platform, kneels down, then crawls onto the seat as the watercraft accelerates.
4. The watercraft can now be accelerated to planing speed, then the operator can reduce the throttle to the desired running speed.

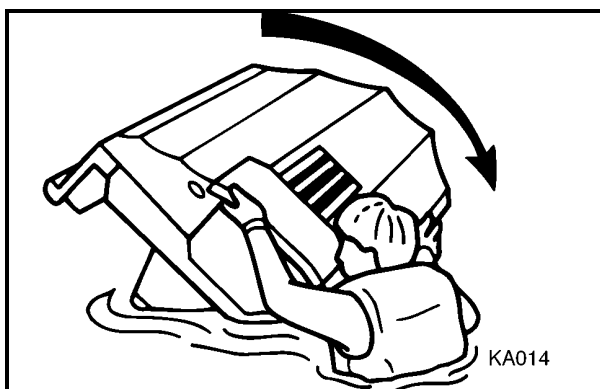
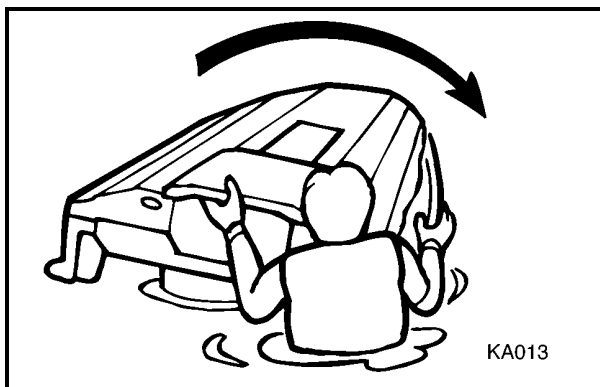
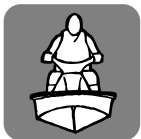
EJU00677a

Capsized watercraft

If the watercraft capsizes, follow the procedures below carefully to prevent damage or injury.

⚠ WARNING**IMPROPER UPRIGHTING CAN CAUSE INJURY:**

- Shut engine off, and be sure engine shut-off cord is removed from the engine shut-off switch.
- Do not put hand in intake grate.
- Watch so you are not hit by the watercraft as it comes over.

**CAUTION:**

Be sure to remove the clip from the shut-off switch, otherwise the engine will overheat and engine damage may occur.

1. Shut the engine off by removing the clip from the engine shut-off switch.
2. Swim to the rear of the watercraft. Pull the watercraft over with left hand on ride plate while pushing down on the gunwale with your right hand/foot.

NOTE:

If the port side of the capsized watercraft is tilting upward, first tilt the watercraft so the port side is down by using your weight to press down on the gunwale.

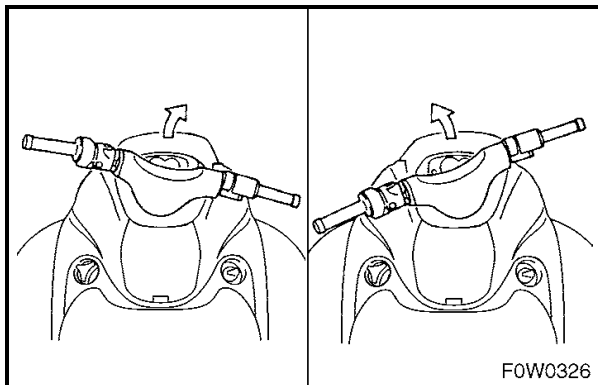
CAUTION:

Do not turn the watercraft over counter-clockwise, otherwise water may leak into the carburetor and engine and cause damage.

3. Start the engine, and then head for shore to inspect the engine for water damage.

CAUTION:

If the watercraft has been capsized for 5 minutes or more, air may have entered the oil injection system. Leave the engine off, or operate only at trolling speed, for 10 minutes after the watercraft has been turned right-side up. This will allow any air to bleed off.



EJU00499

Turning the watercraft

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 is produced.

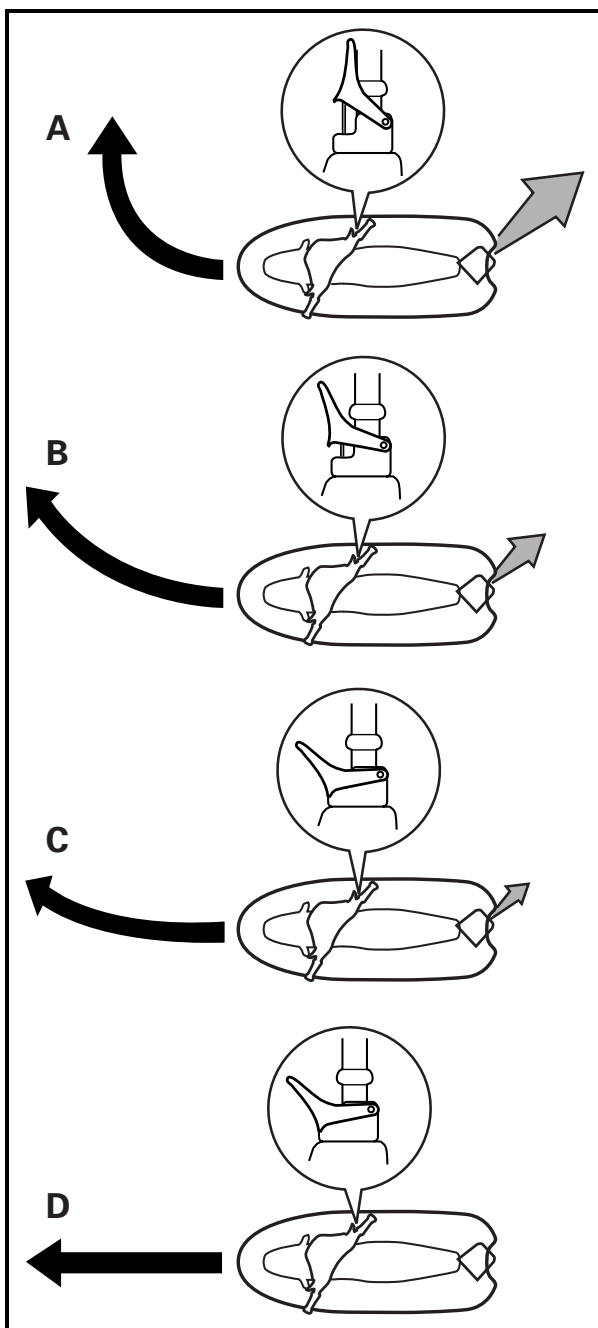
The amount of jet thrust, in addition to the position of the handlebars, determines how sharply you turn.

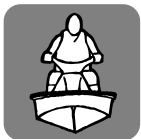
- A. More throttle produces higher thrust, so the watercraft will turn more sharply.
- B. Less throttle produces lower thrust, so the watercraft will turn more gradually.
- C. Releasing the throttle completely produces only minimum thrust. If you are traveling at speeds above trolling, you will have rapidly decreasing ability to steer without throttle. You may still have some turning ability immediately after releasing the throttle, but once the engine slows down, the watercraft will no longer respond to handlebar input until you apply throttle again or you reach a trolling speed.

At trolling speed, the watercraft can be turned gradually by handlebar position alone using just the amount of thrust available at idle.

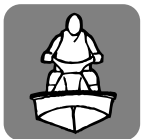
- D. If the engine is stopped while riding, there is no thrust. The watercraft will go straight even though the handlebars are turned.

You need throttle to steer.



**⚠ WARNING**

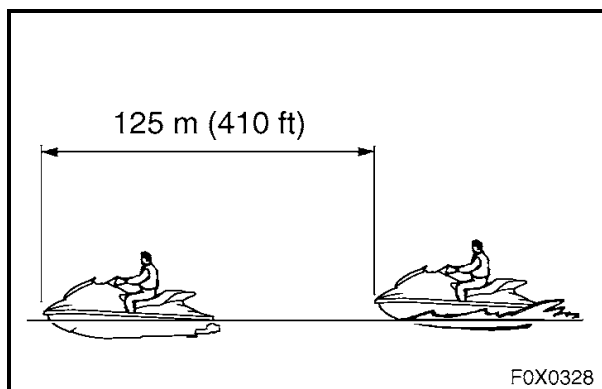
- Do not release the throttle when trying to steer away from objects—you need throttle to steer. A collision could result in severe injury or death.
- When operating at higher speeds, make gradual turns or slow down before turning. Sharp high-speed turns may cause the watercraft to slide sideways or spin, throwing the operator and passengers overboard which could cause an injury.



EJU00621

Stopping the watercraft

The watercraft is not equipped with a separate braking system. It is stopped by water resistance when the throttle lever is released. From full speed, the watercraft comes to a complete stop in approximately 125 m (410 ft) after the throttle is released and the engine is stopped, although this distance will vary depending on many factors, including gross weight, water surface conditions, and wind direction. 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.



⚠ 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.**



EJU00635

Beaching the watercraft

1. Make sure no obstructions, boats or swimmers are near the beach. Release the throttle lever about 125 m (410 ft) before you reach the intended beaching area.
2. Approach the beach slowly and stop the engine before reaching land. Remember: you need throttle to steer.
3. Get off the watercraft and pull it up on the beach.

CAUTION:

Small pebbles, sand, seaweed, and other debris can be pulled into the jet intake and impair or damage the impeller. Always stop the engine and get off before beaching the watercraft.

EJU00505

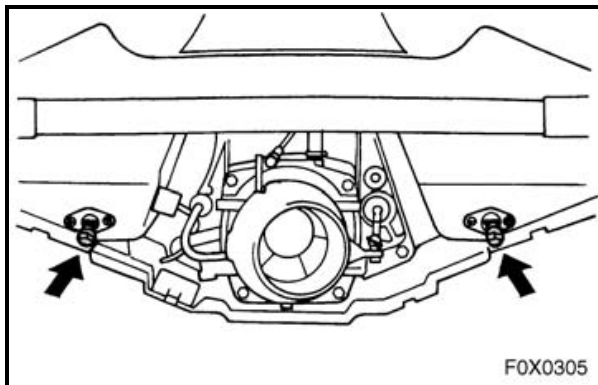
Docking the watercraft

1. Make sure that no obstructions, boats or swimmers are close to the watercraft. Reduce speed about 125 m (410 ft) away from the dock.
2. Slowly approach the dock and stop the engine just before coming alongside it.

EJU00507

Rough water operation

The force of landing after jumping can cause a strong impact on both the watercraft and the operator and passenger. It is possible for the operator to hit his or her chest or jaw on the watercraft body or handlebars and be injured. Do not operate the watercraft with your chin right above the handlebars or with your feet outside the watercraft. Operating in rough water or jumping waves can also crack the watercraft body or damage internal parts. Avoid operating in rough water or bad weather conditions.



EJU00691a

Post-operation checks

Always perform the following post-operation checks after operating the watercraft.

⚠ WARNING

Stay away from stern when engine is running on land. Hot water and steam spurting from exhaust outlet into the air can cause serious burns.

1. Remove the watercraft from the water.
2. Wash down the hull, handlebars, and jet unit with fresh water.
3. Remove the seat and check the engine compartment for water. To drain excess water, remove the stern drain plugs, then raise the bow of the watercraft enough to allow water in the bilge to drain out.

NOTE:

This watercraft is equipped with an automatic bilge-draining system that removes water from the engine compartment while you are underway. However, some residual water will remain.

4. Put the watercraft in a horizontal position.
5. Flush the cooling system to prevent it from clogging with salt, sand, or dirt. (See page 4-1 for flushing the cooling system procedures.)
6. Drain residual water from the exhaust system by running the engine at 4,000 r/min for 10 to 15 seconds.

CAUTION:

Do not run engine over 4,000 r/min on land. Otherwise catalytic converter could sustain serious damage.



7. If the watercraft will be stored for a week or more, lubricate internal engine components to help prevent corrosion. (See page 4-3 for lubrication procedures.)
8. Rinse the engine and engine compartment with a small amount of water.

CAUTION:

Do not use high pressure when rinsing the engine or engine compartment as severe engine damage could result.

9. Wipe the engine and engine compartment dry with a clean cloth (repeat step 3, if necessary).
10. Wipe the hull, handlebars, and jet unit dry with a clean cloth.
11. Spray a rust inhibitor, such as Yamaha Silicone Protectant and Lubricant, on metallic parts to minimize corrosion.

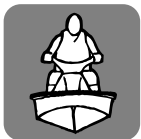
⚠ WARNING

Do not spray flammable rust inhibitor products on engine surfaces while the engine is hot. The sprayed substance or propellants could catch fire.

12. Allow the engine compartment to air dry completely before reinstalling the seat.

NOTE:

Cover watercraft after engine and catalytic converter cool down.

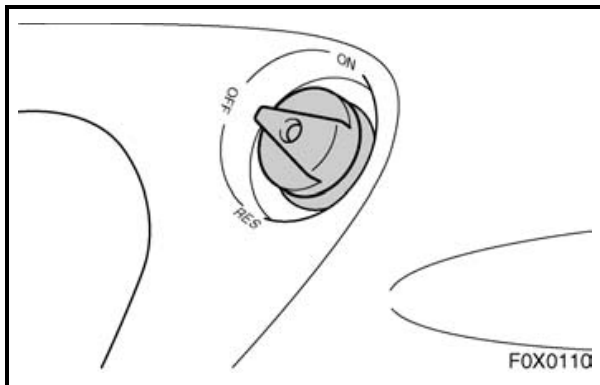


EJU00679

Transporting

⚠WARNING

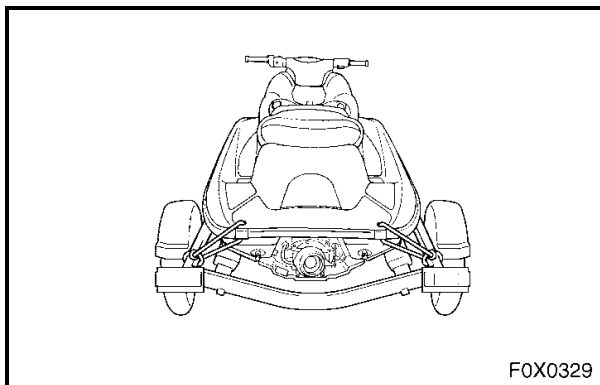
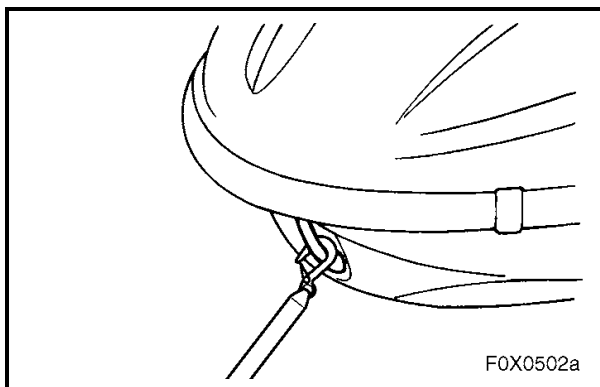
Always place the fuel cock knob in the “OFF” position when transporting the watercraft, otherwise fuel could leak out into the engine or engine compartment, which would create a fire hazard.



When transporting the watercraft on a trailer, secure the tie downs to the trailer through the bow eye and stern rope holes.

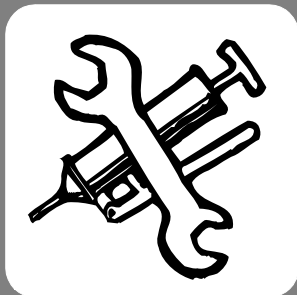
CAUTION:

Do not route ropes or tie downs over the seat, as they may leave permanent marks on the seat's surface. Also, wrap the ropes or tie downs with towels or rags where they touch the body of the watercraft to avoid scratching or damage.

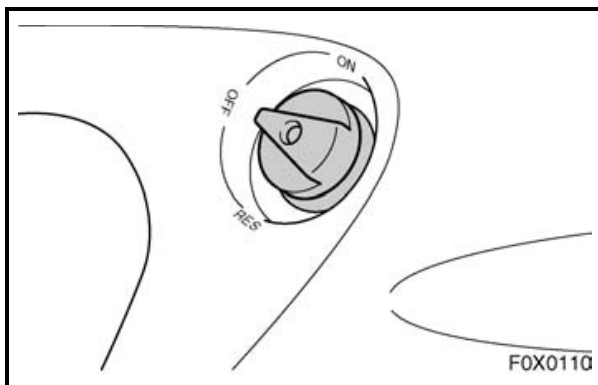


EJU00515

MAINTENANCE AND CARE



Storage	4-1
Flushing the cooling system	4-1
Lubrication.....	4-3
Fuel system.....	4-3
Battery	4-4
Cleaning the watercraft.....	4-5
Maintenance and adjustments	4-6
Owner's/Operator's Manual and tool kit	4-7
Periodic maintenance chart.....	4-8
Inspecting the fuel system	4-9
Inspecting the oil injection system.....	4-11
Inspecting the steering cable.....	4-12
Inspecting and adjusting the throttle cable	4-12
Inspecting the QSTS mechanism	4-13
Cleaning and adjusting the spark plugs.....	4-14
Lubrication points.....	4-15
Inspecting the battery	4-18
Adjusting the carburetor	4-20
Replacing the fuse	4-21
Bleeding the oil injection pump.....	4-21
Adjusting the Yamaha Adjustable Sponson (Y.A.S.)	4-22
Specifications	4-23



EJU00516a

Storage

⚠WARNING

Always place the fuel cock knob in the “OFF” position when storing the watercraft, otherwise fuel could leak out into the engine or engine compartment, which would create a fire hazard.

Storage for prolonged periods of time, such as winter storage, requires preventative 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 by the owner.

EJU00913a

Flushing the cooling system

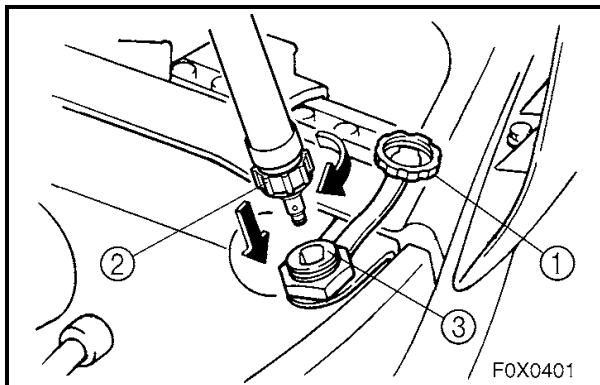
Flushing the cooling system is essential to prevent the cooling system from being clogged with salt, sand, or dirt.

⚠WARNING

Stay away from stern when engine is running on land. Hot water and steam spurting from exhaust outlet into the air can cause serious burns.

CAUTION:

- 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 crankcase causing severe engine damage.
- Do not run the engine for more than 15 seconds without supplying water, otherwise the engine may overheat.
- Do not run engine over 4,000 r/min on land. The catalytic converter could sustain serious damage.



1. Put the watercraft on land in a horizontal position.
2. Open the flushing hose connector cap ①, and then insert the garden hose adapter ② into the flushing hose connector ③ and turn it until it is securely connected.
3. Connect the garden hose adapter to a water tap using a hose.
4. Start the engine, and then immediately turn the water supply on until water flows out continually from the cooling water pilot outlet.
5. 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 repeat the above steps.
6. Turn the water supply off, and then force the remaining water out from the cooling passages by running the engine at 4,000 r/min or less within 10 to 15 seconds.
7. Stop the engine.
8. Remove the garden hose adapter and secure the cap.



EJU00528a

Lubrication

⚠ WARNING

Do not spray flammable rust inhibitor products on engine surfaces while the engine is hot. The sprayed substance or propellants could catch fire.

1. Remove the spark plugs and pour approximately one tablespoon of oil into each cylinder.
2. Grease the spark plug threads and reinstall the spark plugs.
3. Crank the engine within 3 seconds using the engine start switch.
4. Lubricate all cables such as the throttle, choke, and steering cables.

NOTE:

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

5. Lubricate the areas of the watercraft specified under Lubrication points on page 4-15.

EJU00528a

Fuel system

⚠ WARNING

Gasoline is highly flammable and explosive. A fire or explosion can cause severe injury or death. Shut off the engine. Do not smoke. Avoid spilling gasoline.

1. Place the fuel cock in the OFF position.
2. Drain the fuel tank by using a siphon.



EJU00530

Battery

If the watercraft is not used for a month or more, disconnect the (–) battery cable first, and then the (+) cable and breather pipe, and next remove the battery from the craft.

Clean the battery casing using fresh water.

If the battery terminals are dirty or corroded, clean the mating surfaces on the terminals for the battery cables using the wiring brush or equivalents.

Recharge the battery, and then store it in a cool and dark place.

Apply the Yamaha marine grease/Yamaha grease A to the battery terminals.

Recharge the battery periodically at least 2 months because a battery will discharge electricity by itself while storing.

CAUTION:

The battery may be impossible to use again if you store it for a longer time without recharging. Recharge the battery periodically.

NOTE:

The battery condition can be found by checking the specific gravity of the electrolyte. However, you can also know the battery condition roughly by measuring the voltage at both battery terminals. Recharge the battery if the voltage is 12 volts or less.

Specific gravity of electrolyte (for reference): 1.28 at 20 °C (68 °F)
--

Yamaha recommend checking the specific gravity of the electrolyte and charging battery by a Yamaha dealer or a battery dealer. If you maintain the battery yourself, read carefully the instructions for the tool and machine before maintenance.



EJU00531

Cleaning the watercraft

Clean the watercraft before storing for a long period.

⚠ WARNING

Do not spray flammable rust inhibitor products on engine surfaces while the engine is hot. The sprayed substance or propellants could catch fire.

1. Wash down the hull, handlebars, and drive unit with fresh water.
2. Rinse the engine and bilge area with fresh water. Drain off all water and wipe up remaining moisture with clean, dry rags.
3. Spray the engine's exterior with Yamaha Silicone Protectant and Lubricant.
4. Wax the hull with a non-abrasive wax such as Yamaha Silicone Wax.
5. Wipe all vinyl and rubber components, such as the seat and engine compartment seals, with a vinyl protectant such as Yamaha Protectant.



Maintenance and adjustments

Periodic inspection, adjustment and lubrication will keep your watercraft in the safest and most efficient condition possible. Safety is an obligation of the watercraft owner. The most important points of watercraft inspection, adjustment and lubrication are explained on the following pages.

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

Remember that 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 engine repair establishment or individual. Warranty repair (emission or normal) however, must be performed at an authorized Yamaha marine dealership.

⚠ WARNING

- Be sure to turn off the engine when you perform maintenance unless otherwise specified, otherwise an accident or injury could result from unexpected operation, moving parts, or electric shock. If the owner is not familiar with watercraft servicing, this work should be done by a Yamaha dealer. Improperly serviced components could fail or stop operating correctly, which could result in an accident.
- Modifications to this watercraft not approved by Yamaha may cause loss of performance or excessive noise, or render it unsafe for use. Consult a Yamaha dealer before attempting any changes.

**NOTE:**

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.

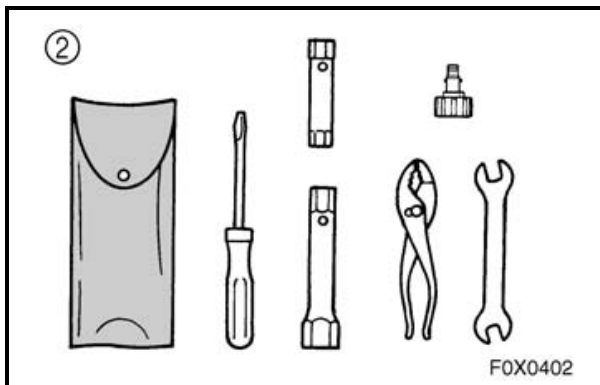
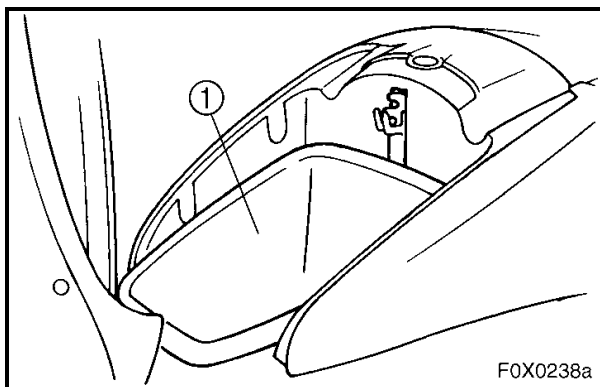
Owner's/Operator's Manual and tool kit

It is advisable always to carry the Owner's/Operator's Manual and tool kit with you whenever you use the watercraft. For your convenience, a storage compartment ① is provided on the watercraft for the manual and tool kit.

NOTE:

To protect these materials from water damage, it would be a good idea to put them in a waterproof bag. If your Owner's/Operator's Manual is damaged, order a replacement from a Yamaha dealer.

The service information included in this manual is intended to provide you with the necessary information for completing your own preventive maintenance and minor repairs. The tools provided in the tool kit ② are sufficient for this purpose. However, a torque wrench may also be necessary to tighten nuts and bolts.





EJU00536

Periodic maintenance chart

The following chart gives general guidelines for periodic maintenance. However, depending on your operating conditions maintenance may need to be performed more frequently.

● This mark indicates maintenance that you may do yourself.

○ This mark indicates work to be done by a Yamaha dealer.

MAINTENANCE INTERVAL ITEM		INITIAL			THEREAFTER EVERY		PAGE
		10 hours	50 hours	100 hours	100 hours	200 hours	
			3 months	6 months	6 months	12 months	
Spark plug	Inspect, clean, adjust	●	●	●	●		4-14
Lubrication points	Lubricate			●	●		4-15
Intermediate housing	Lubricate	○*1		●*2	●*2		4-17
Fuel system	Inspect			○	○		4-9
Fuel filter	Check, replace	○				○	4-10
Fuel tank	Clean					○	4-10
Oil injection system	Inspect, clean	○				○	4-11
Trolling speed	Adjust			●	●		4-20
Carburetor throttle shaft	Inspect	○		○	○		—
Cooling water passages	Flush	● (after every use)					4-1
Bilge strainer	Clean		●	●	●		—
Impeller	Inspect		●	●	●		—
Steering cable	Inspect			●	●		4-12
QSTS mechanism	Inspect			●	●		4-13
Throttle cable	Inspect, adjust			●	●		4-12
Stern drain plugs	Inspect, replace					●	3-7
Battery	Inspect	● (inspect fluid level before every use)					4-18
Rubber coupling	Inspect					○	—
Nuts and bolts	Tighten	○		○	○		—

*1: Grease capacity: 33.0–35.0 cm³ (1.11–1.18 oz)

*2: Grease capacity: 6.0–8.0 cm³ (0.20–0.27 oz)



EJU00537

Inspecting the fuel system

⚠WARNING

Gasoline is highly flammable and explosive. A fire or explosion can cause severe injury or death. Shut off the engine. Do not smoke. Avoid spilling gasoline. Do not drain the fuel while the engine is hot.

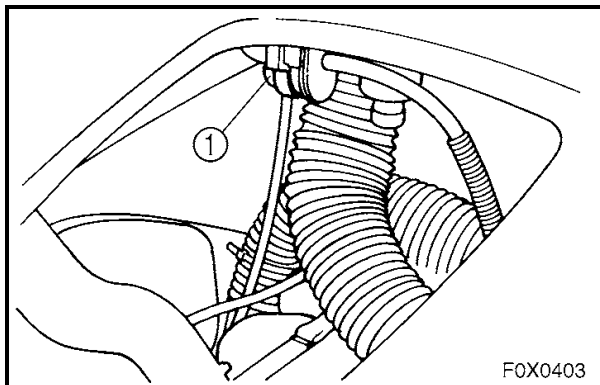
Check the fuel system for leaks, cracks, or malfunctions. If any problem is found, do the necessary repair or replacement as required. If repair is necessary, consult a Yamaha dealer.

Check:

- Carburetor for leakage.
- Fuel pump for malfunction or leakage.
- Fuel tank for water or dirt.
- Fuel tank for damage, cracks or leakage.
- Fuel hose joint for leakage.
- Fuel hose for cracks or other damage.
- Fuel filter for leakage.
- Fuel cock for leakage.
- Air vent check valve for leakage.
- Fuel tank filler cap for damage.

⚠WARNING

Failure to check for and repair any fuel leakage may result in fire or explosion.



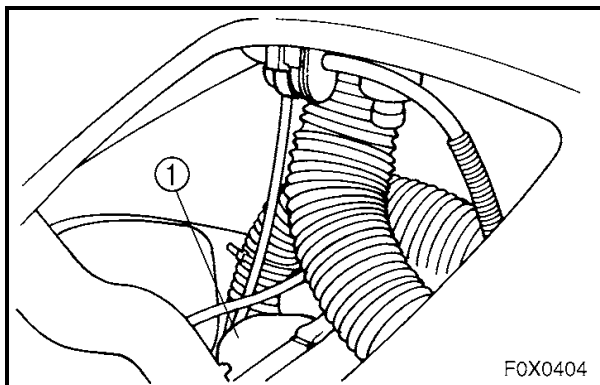
EJU00538

Fuel filter

This watercraft is equipped with a one-piece, disposable fuel filter ①. The fuel filter should be replaced once a year or after every 200 hours of operation, or if water is found in the filter. Have a Yamaha dealer replace the fuel filter if necessary.

⚠WARNING

Do not try to replace the fuel filter yourself. An incorrectly installed filter can leak gasoline, which could lead to fire or explosion. If necessary, have a Yamaha dealer replace the fuel filter.



EJU00540

Fuel tank

Check the fuel tank ① for leakage or water in the tank. If water is found in the fuel system or if the fuel tank needs to be cleaned have a Yamaha dealer service the watercraft.



EJU00544

Inspecting the oil injection system

Check the oil injection system for leakage, cracks, or malfunctions. If necessary, have a Yamaha dealer repair the oil injection system.

Check:

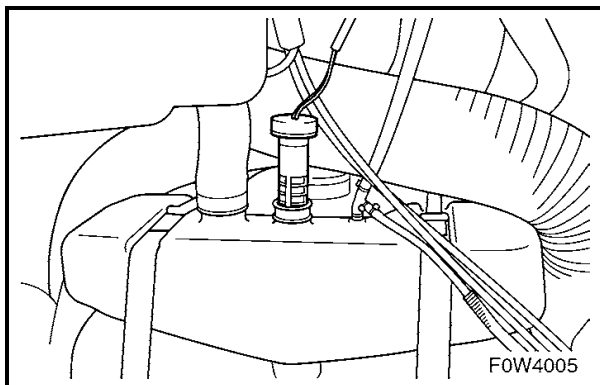
- Oil tank for damage, cracks or leakage.
- Oil tank for water or dirt.
- Oil hose and joint for damage or cracks.
- Oil filter for dirt.
- Oil pump for leakage.

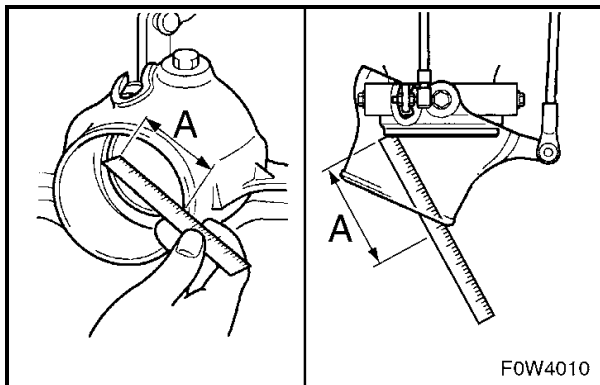
Oil tank

Check the oil tank for leakage or water in the tank. If water is found in the oil injection system or if the oil tank needs to be cleaned have a Yamaha dealer service the watercraft.

Oil filter

Check the oil filter for dirt and clogs. If the oil filter is clogged, remove it from the oil tank together with the oil level sender and clean it.





EJU00546a

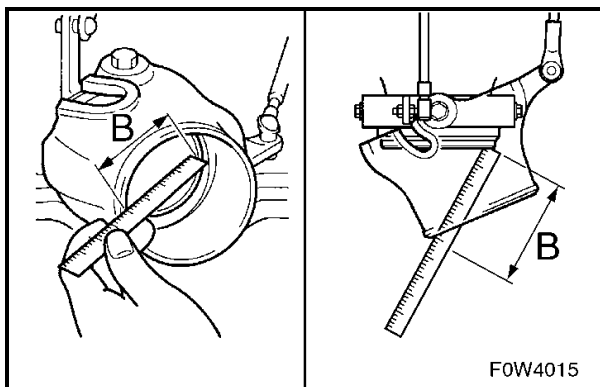
Inspecting the steering cable

Check for smooth operation of the handlebars and jet thrust nozzle.

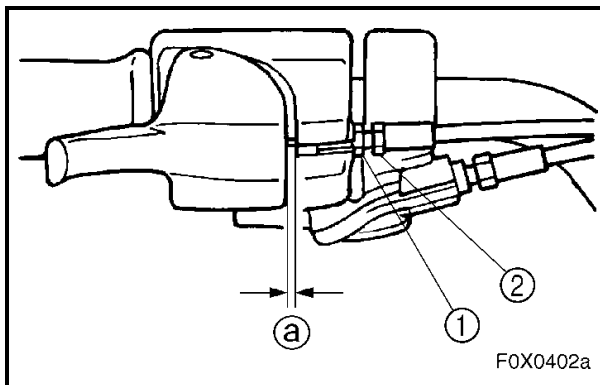
Turn the handlebars as far as possible to the right and left and check that the difference of distance A and B between the jet thrust nozzle and the nozzle is within 5 mm.

Difference of A and B:

Maximum 5 mm (0.20 in)



If steering is stiff or misadjusted, have a Yamaha dealer service it.



EJU00550

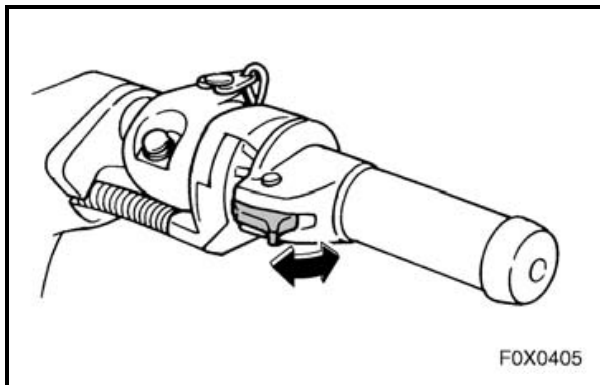
Inspecting and adjusting the throttle cable

Check that the throttle cable moves back to the set position smoothly and that free play is within specification.

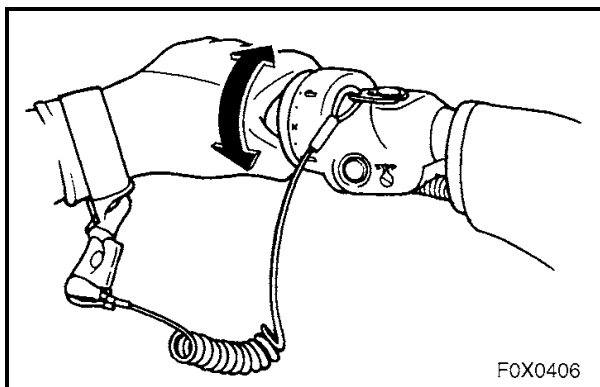
1. Squeeze and release the throttle lever. If the lever does not return smoothly, have a Yamaha dealer service it.
2. Adjust free play **a** by loosening the lock-nut ① and turning the adjuster ②.

Throttle lever free play:

4–7 mm (0.16–0.28 in)



F0X0405



F0X0406

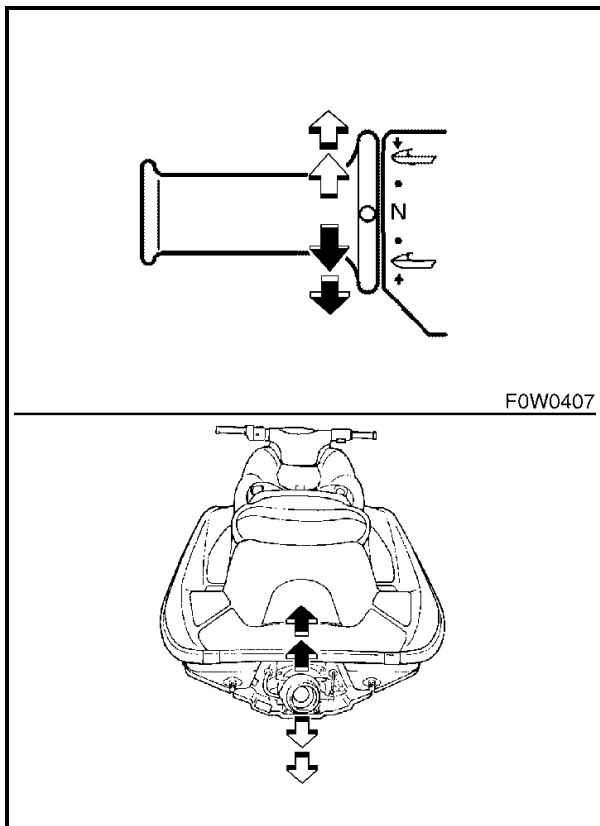
EJU00551

Inspecting the QSTS mechanism

Check that the shift lock lever moves back to the lock position smoothly, that the QSTS selector locks and unlocks properly, and that the jet thrust nozzle moves up or down.

1. Squeeze and release the shift lock lever.
2. Check that the QSTS selector locks and unlocks properly when the lever is released.
3. Check that the selector turns smoothly when the lever is squeezed and held in place.
4. Check that the angle of the jet thrust nozzle changes when the selector is shifted from neutral to bow-up or bow-down.

If the mechanism does not work properly, have a Yamaha dealer service it.



F0W0407

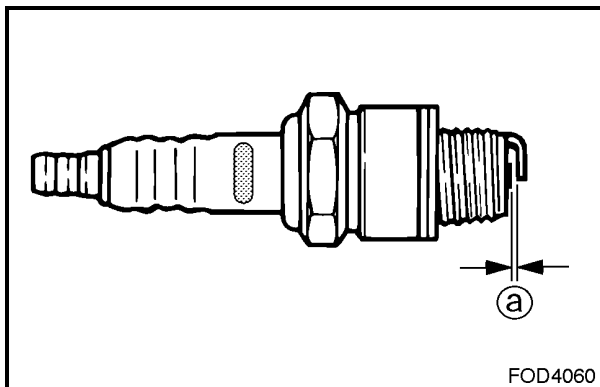


EJU00552a

Cleaning and adjusting the spark plugs

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate something about the condition of the engine. For example, if the center electrode porcelain is very white, this could indicate an intake air leak or carburetion problem in that cylinder. Do not attempt to diagnose any problems yourself. Have a Yamaha dealer service the watercraft.

Remove and inspect the spark plug periodically; heat and deposits will cause the spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, replace the spark plug with the specified plug.



FOD4060

Standard spark plug: BR8ES-11

Measure the spark plug gap (a) with a wire thickness gauge before installing the spark plug. Adjust the gap to specification if necessary.

Spark plug gap:
1.0–1.1 mm (0.039–0.043 in)

To reinstall spark plug:

1. Clean the gasket surface.
2. Wipe any dirt from the threads of the spark plug.
3. Screw the spark plug to the correct torque.

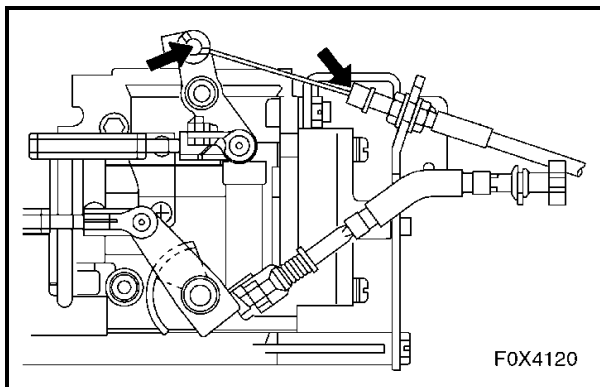
Spark plug torque:
25 N·m (2.5 kgf·m, 18 ft·lb)

**NOTE:**

- Wipe off any water on the spark plug or inside the cap before installing the spark plug cap. Push the spark plug cap down until it clicks.
- If a torque wrench is not available when you are fitting a new spark plug, a good estimate of the correct torque is 1/4 turn to 1/2 turn past finger tight. Have the spark plug adjusted to the correct torque with a torque wrench as soon as possible.

⚠WARNING

Be careful not to damage the insulator when removing or installing a spark plug. A damaged insulator could allow sparks to escape, which could lead to explosion or fire.

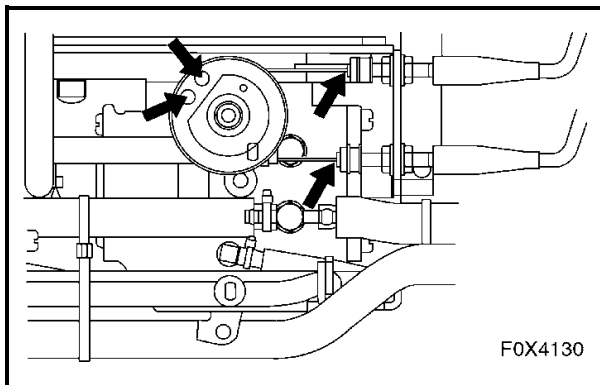


EJU00553a

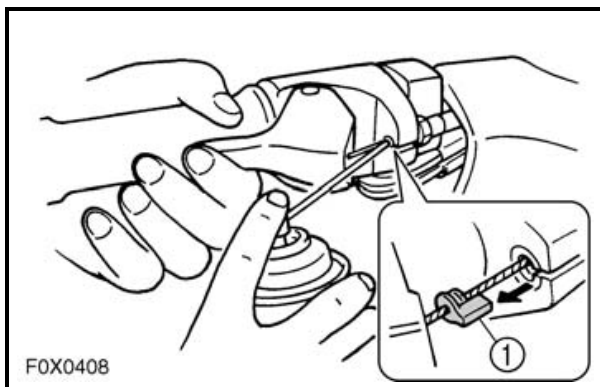
Lubrication points

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

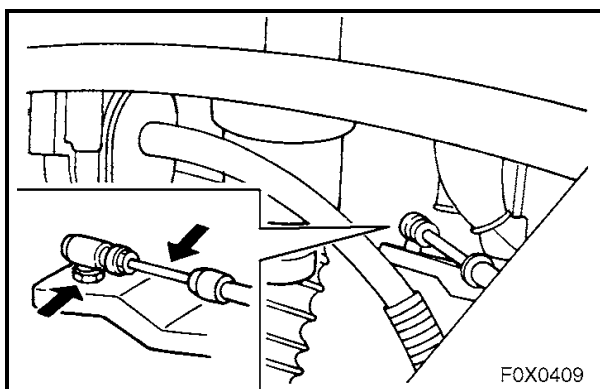
Recommended water-resistant grease:
Yamaha Marine Grease/
Yamaha Grease A



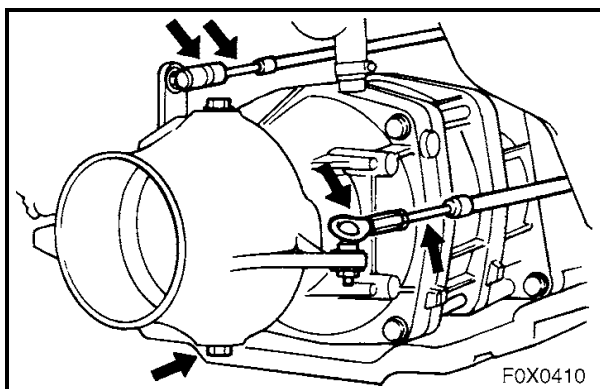
- Throttle cable (carburetor end)
- Oil pump cable
- Choke cable (carburetor end)



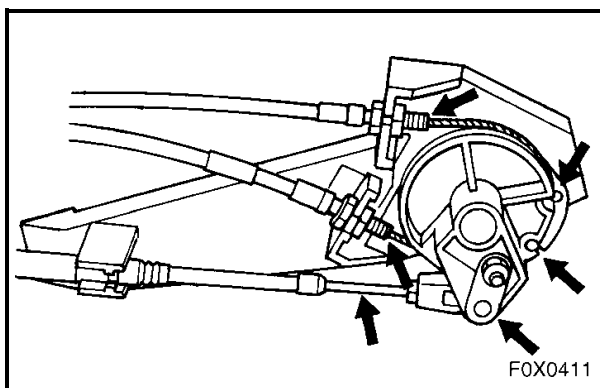
- Throttle cable (handlebar end)
Pull the throttle lever and remove the seal ①. Spray a rust inhibitor into the outer cable. Refit the seal securely.



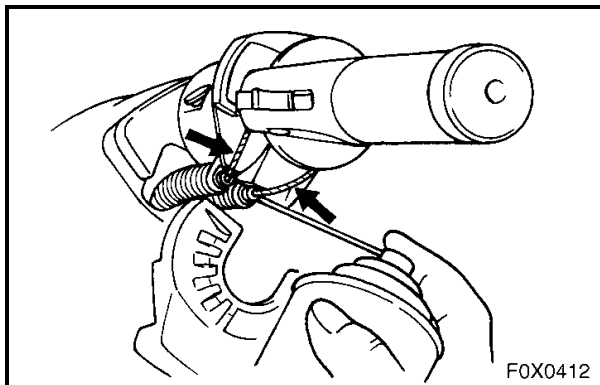
- Steering cable (handlebar end)



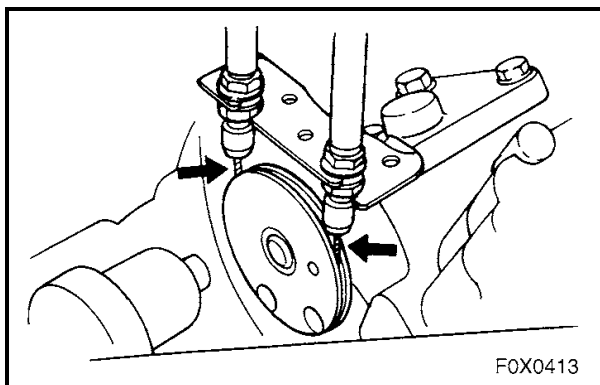
- Steering cable (nozzle end)
- Nozzle pivot shaft
- QSTS cable (nozzle end)



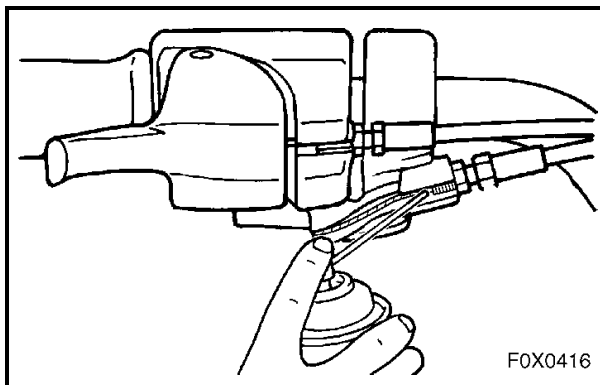
- QSTS cables (pulley end)



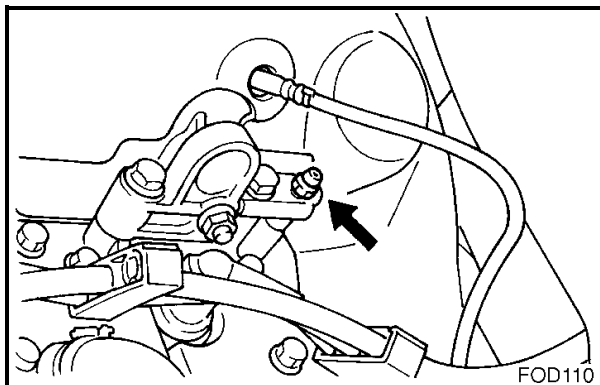
- QSTS cables (handlebar end)
Remove the QSTS cable housing. Spray a rust inhibitor into the outer cable.
Reinstall the QSTS cable housing.



- YPVS cable



- Choke cable (handlebar side)
Spray the rust inhibitor into the outer cable.



EJU00566a

- Intermediate housing
Using a grease gun, fill the intermediate housing with water-resistant grease through the grease nipple.

Grease capacity:

Initial 10 hours or 1 month:
33.0–35.0 cm³ (1.11–1.18 oz)
Every 100 hours or 6 months:
6.0–8.0 cm³ (0.20–0.27 oz)



EJU00572

Inspecting the battery

Check the level of the battery electrolyte and make sure the leads are secure.

⚠ WARNING

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. Electrolyte 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 physician immediately.

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

Batteries produce explosive gases. Keep sparks, flame, 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.

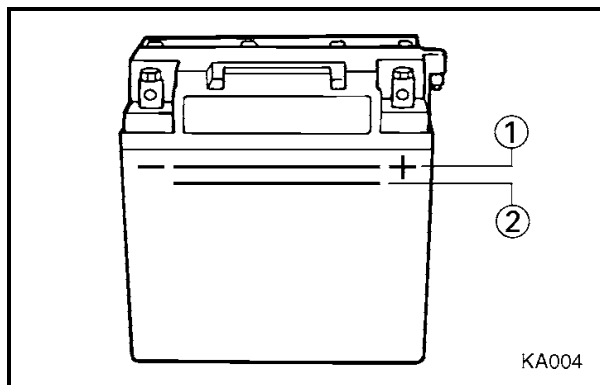
KEEP OUT OF THE REACH OF CHILDREN.

CAUTION:

Be careful not to place the battery on its side.

Make sure to remove the battery from the battery compartment when adding battery electrolyte or charging the battery.

When checking the battery, make sure the breather hose is connected to the battery and not obstructed.

**To replenish the battery:**

1. Make sure that the electrolyte level is between the upper ① and lower ② level marks.
2. Refill the battery with distilled water if necessary.

CAUTION:

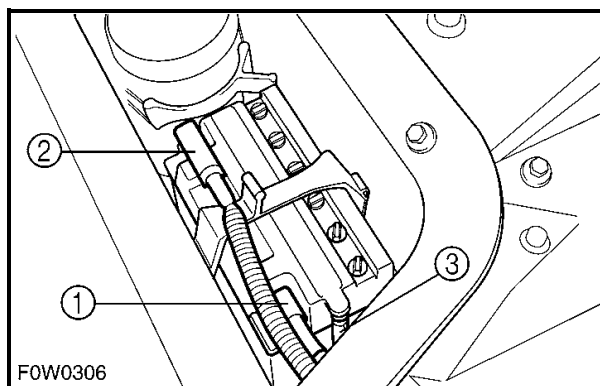
Normal tap water contains minerals that are harmful to a battery. Use only distilled water for replenishing the battery.

To recharge the battery:**CAUTION:**

Do not attempt to charge a battery hastily. Battery life may be shorter.

Yamaha recommend charging battery by a Yamaha dealer or a battery dealer. If you charge the battery yourself, read the battery charger instructions carefully before charging and follow the points below.

1. Remove all caps from the battery cell.
2. Add distilled water to the specified level if the electrolyte level is low.
3. Set the charging rate to 1.9 ampere and charge the battery slowly until the explosive gases become coming out vigorously from battery cells.

**To connect the battery terminals:**

1. Make sure that the connections are correct when you insert the battery in the watercraft.
2. Make sure that the breather hose is properly connected and that it is not damaged or obstructed.
3. Make sure that the battery is securely held in place.

- ① Positive (+): Red lead
- ② Negative (-): Black lead
- ③ Breather hose



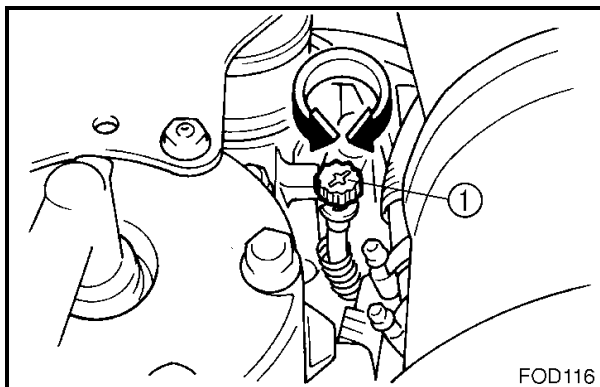
EJU00573

Adjusting the carburetor

The carburetor is a vital part of the engine and requires very sophisticated adjustment. Most adjusting should be left to a Yamaha dealer who has the professional knowledge and experience to perform it. However, the operator may adjust the trolling speed as part of the usual maintenance routine.

CAUTION:

The carburetor was set at the Yamaha factory after many tests. If the settings are disturbed by someone who does not have the necessary technical knowledge, poor engine performance and damage may result.

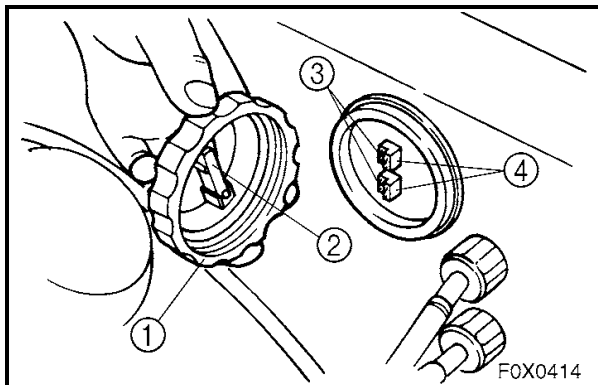


EJU00577a

Adjusting the trolling speed

1. Put the watercraft in the water.
2. Start the engine and warm it up for 1 or 2 minutes. Using a diagnostic tachometer or, if necessary, the tachometer in the multifunction information center, adjust the engine speed to specification.
3. Turn the throttle stop screw ① clockwise to increase engine speed if necessary. Turn it counterclockwise to decrease engine speed if necessary.

Trolling speed: 1,300–1,400 r/min



EJU00578a

Replacing the fuse

The fuse is attached to the electrical box.

To replace the fuse:

1. Remove the cap ①, and then pull out the defective fuse ③ by using the fuse puller ②.
2. Install the spare fuse ④ of the correct amperage.

Fuse amperage: 10 A, 20 A

⚠ WARNING

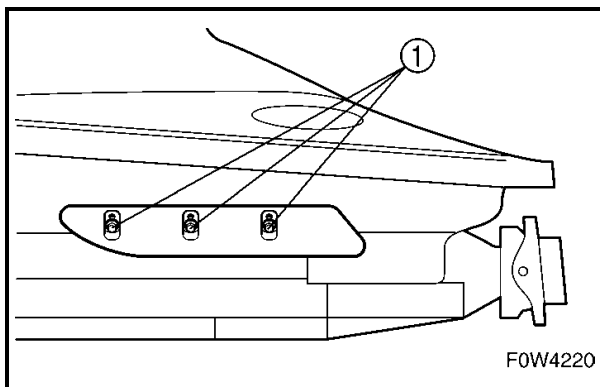
Do not use fuses of higher amperage than those recommended. Substitution of a fuse of improper rating can cause extensive electrical system damage and possible fire.

EJU00580

Bleeding the oil injection pump

If the oil tank becomes completely empty, or any hose connected to the oil pump has been disconnected, the oil pump must be bled to ensure proper oil flow.

If bleeding of the oil pump is necessary, have a Yamaha dealer bleed it.



EJU00753a

Adjusting the Yamaha Adjustable Sponson (Y.A.S.)

The Yamaha Adjustable Sponsons can be adjusted to enhance watercraft performance according to operator preference and operating conditions. (See page 2-23 for an explanation of various positions.)

To adjust the Y.A.S.:

1. Remove the bolts ① on both sponsons.
2. Remove both sponsons, and then install them in the desired position.

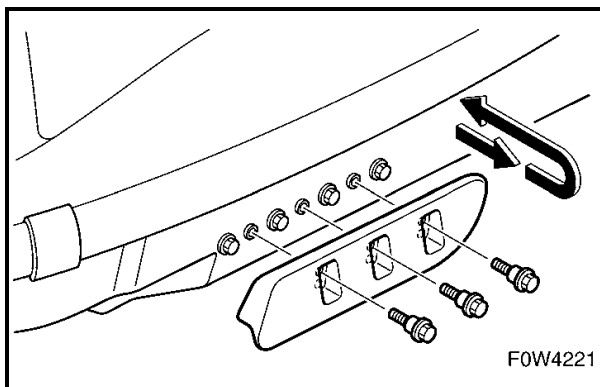
NOTE:

Be sure to install both sponsons to the same level.

3. Tighten the bolts on both sponsons to the correct torque.

Tightening torque:

18 N·m (1.8 kgf·m, 13 ft·lb)





EJU00588

Specifications

ITEM	MODEL	Unit	GP1200R
WATERCRAFT CAPACITY			
Maximum people on board		Number of people	2
Maximum load capacity		kg (lb)	160 (353)
DIMENSIONS			
Length		mm (in)	2,930 (115.4)
Width		mm (in)	1,150 (45.3)
Height		mm (in)	1,020 (40.2)
Dry weight		kg (lb)	306 (675)
PERFORMANCE			
Maximum output		kW (PS) @ r/min	114.0 (155) @ 7,000
Maximum fuel consumption		L/h (US gal/h, Imp gal/h)	64.0 (16.9, 14.1)
Cruising range at full throttle		hr.	0.9
Trolling speed		r/min	1,300–1,400
ENGINE			
Engine type			2-stroke
Number of cylinders			3
Engine displacement		cm ³ (cu in)	1,176 (71.7)
Bore & stroke		mm (in)	80.0 × 78.0 (3.15 × 3.07)
Compression ratio			5.9:1
Lubrication system			Variable oil injection
Cooling system			Water cooled
Starting system			Electric starter
Ignition system			Digital CDI
Spark plug			BR8ES-11 (NGK)
Spark plug gap		mm (in)	1.0–1.1 (0.039–0.043)
Battery capacity		V-AH	12-19
Charging system			Flywheel magneto
DRIVE UNIT			
Propulsion system			Jet pump
Jet pump type			Axial flow, single stage
Impeller rotation			Counterclockwise (viewed from rear)
Transmission			Direct drive from engine
Jet thrust nozzle angle		Degree	23 + 23
Trim nozzle angle		Degree	-5, 0, 5, 10, 15
FUEL AND OIL			
Recommended fuel			Regular unleaded gasoline
Minimum octane rating		PON RON	86 90
Recommended engine oil			YAMALUBE 2-W only
Fuel tank capacity			
Total		L (US gal, Imp gal)	60 (15.9, 13.2)
Reserve		L (US gal, Imp gal)	10 (2.6, 2.2)
Oil tank capacity		L (US gal, Imp gal)	5.5 (1.45, 1.21)

EJU00594

TROUBLESHOOTING AND EMERGENCY PROCEDURES

Troubleshooting	5-1
Troubleshooting chart	5-1
Emergency procedures	5-4
Cleaning the jet intake and impeller	5-4
Jumping the battery	5-5
Towing the watercraft	5-7
Submerged watercraft	5-8





EJU00595

Troubleshooting

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

If you cannot find the cause, or if the procedure for replacement or repair is not described in this Owner's/Operator's Manual, have a Yamaha dealer perform the necessary service.

EJU00596a

Troubleshooting chart

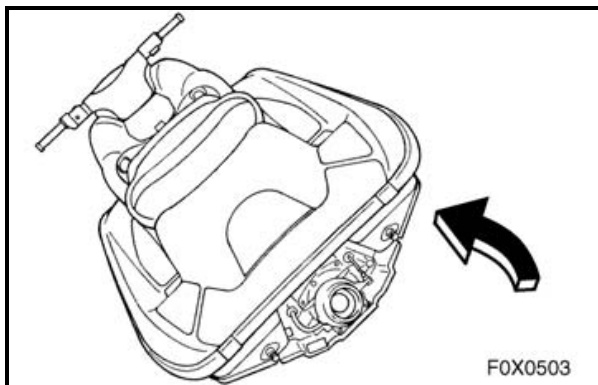
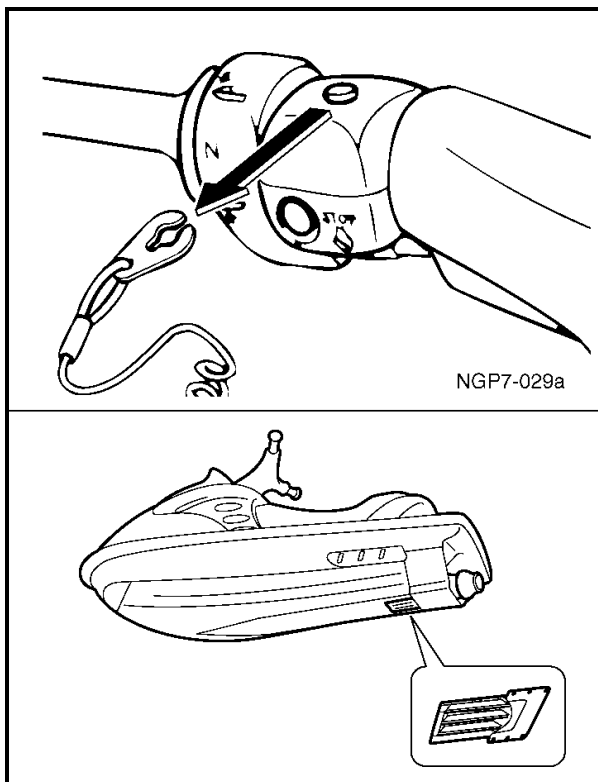
TROUBLE	POSSIBLE CAUSE		REMEDY	PAGE
Engine does not start	Starter motor does not turn over			
	Engine shut-off switch	Clip not in place	Install clip	2-8
	Fuse	Burned out	Replace the fuse and check wiring	4-21
	Battery	Run down	Recharge	4-18
		Poor terminal connections	Tighten as required	4-18
		Terminal corroded	Clean	—
	Starter motor	Faulty	Have serviced by Yamaha dealer	—
	Micro-computer	Overheat mode	Cool down engine	2-13
	Starter motor turns over			
	Fuel cock	Turned to "OFF"	Turn the fuel cock to "ON"	2-7
	Fuel	Empty	Refill as soon as possible	3-3
		Stale or contaminated	Have serviced by Yamaha dealer	4-10
	Fuel tank	Water or dirt present	Have serviced by Yamaha dealer	4-10
	Spark plug	Fouled or defective	Clean or replace	4-14
	Spark plug cap	Not connected or loose	Connect properly	4-14
	Crankcase	Filled with water	Crank engine with plug out until clean	5-8
	Fuel filter	Clogged or water pooled	Have serviced by Yamaha dealer	4-10
	Choke	Choke valve can not be closed surely by lever operation	Have serviced by Yamaha dealer	—
	Water temperature sensor	Failed	Have serviced by Yamaha dealer	2-14



TROUBLE	POSSIBLE CAUSE		REMEDY	PAGE
Engine runs irregularly or stalls	Fuel	Empty	Refill as soon as possible	3-3
		Stale or contaminated	Have serviced by Yamaha dealer	4-10
	Choke	Lever is moved to on	Move back to original position	2-8
	Fuel filter	Clogged or water pooled	Have serviced by Yamaha dealer	4-10
	Fuel tank	Water or dirt present	Have serviced by Yamaha dealer	4-10
	Spark plug	Fouled or defective	Replace	4-14
		Incorrect heat range	Replace	4-14
		Gap incorrect	Adjust	4-14
	Spark plug cap	Loose	Connect properly	4-14
		Cracked, torn, or damaged	Have serviced by Yamaha dealer	—
	Electrical wiring	Loose connection	Tighten or connect properly	—
	Carburetor	Incorrect idle adjustment	Adjust idle	4-20
		Clogged	Have serviced by Yamaha dealer	—
Warning light or indicator blinks	Fuel level	Empty	Refill as soon as possible	3-3
	Engine oil level	Empty	Refill immediately	3-4
		Oil filter clogged	Clean	4-11
	Engine overheated	Jet intake clogged	Clean	5-4
		Water temperature sensor is failed	Have serviced by Yamaha dealer	2-13
	Low battery voltage	Battery voltage low	Charge	4-18
		Battery terminal connected wrong	Connect properly	4-18
	Exhaust gas temperature	Gas temperature is too high	Cool down engine	2-14



TROUBLE	POSSIBLE CAUSE		REMEDY	PAGE
Watercraft slow or loses power	Cavitation	Jet intake clogged	Clean	5-4
		Impeller damaged or worn	Have serviced by Yamaha dealer	—
	Engine over-heated	Jet intake clogged	Clean	5-4
	Fuel filter	Clogged	Have serviced by Yamaha dealer	4-10
	Spark plug	Fouled or defective	Replace	4-14
		Incorrect heat range	Replace	4-14
		Gap incorrect	Adjust	4-14
	Spark plug caps	Loose	Connect properly	4-14
	Electrical wiring	Loose connection	Tighten or connect properly	—
	Fuel	Stale or contaminated	Have serviced by Yamaha dealer	4-10
	Bilge	Water in bilge	Drain	3-7



EJU00597

Emergency procedures

EJU00598

Cleaning the jet intake and impeller

If weeds or debris get caught in the 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. If there is any sign that the jet intake or impeller is clogged with weeds or debris, beach the watercraft and check the intake and impeller. Always stop the engine before beaching the watercraft.

⚠WARNING

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

1. Turn the watercraft on its side as shown.

CAUTION:

- Place a suitable clean cloth or carpeting underneath the watercraft to protect it from abrasions and scratches.
- Always turn the watercraft over onto its port (left) side.
- When turning the watercraft on its side, support the bow so the handlebars cannot be bent or damaged.



2. Remove any weeds or debris from around the drive shaft, impeller, pump housing, and jet thrust nozzle.

If debris is difficult to remove, consult your Yamaha dealer.

CAUTION:

Always avoid operating your watercraft in areas where weed growth is thick. If traveling in weeded areas is unavoidable, operate the engine alternately at partial throttle and full throttle. Weeds tend to accumulate more at a steady speed and at trolling speed. If weeds clog the intake or impeller area and cause cavitation, follow the cleaning procedure above.

EJU00599

Jumping the battery

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

⚠ WARNING

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

Antidotes

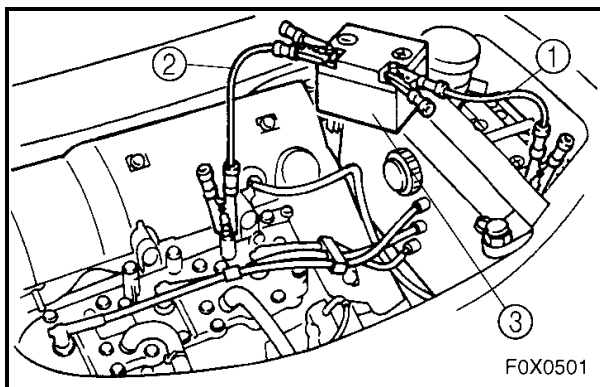
External: Flush with water.

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

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

Batteries give off explosive gases. Keep sparks, flame, cigarettes, etc. well away. If using or charging the battery in an enclosed area, make sure that it is well ventilated. Always shield your eyes when working near batteries.

KEEP OUT OF THE REACH OF CHILDREN.



EJU00600

Connecting the jumper cables

1. Connect the positive (+) jumper cable ① to the positive (+) terminals of both batteries.
2. Connect one end of the negative (-) jumper cable ② to the negative (-) terminal of the booster battery ③.
3. Connect the other end of the negative (-) cable to an unpainted bolt on the cylinder head.

CAUTION:

Do not connect the end of the jumper cable to the negative (-) terminal on the watercraft battery! Be sure all connections are secure and correct before attempting to start the engine. Any wrong connection may damage the electrical system.

4. Start the engine, and then disconnect the cables by reversing the steps above.

CAUTION:

- 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 may be damaged. If the engine does not start in 5 seconds, release the start switch, wait 15 seconds, and try again.



EJU00603

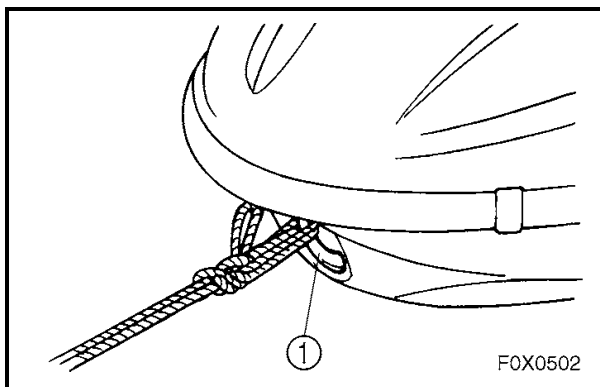
Towing the watercraft

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

If the watercraft must be towed in an emergency using a tow line, the operator should ride the watercraft, holding onto the handlebars.

CAUTION:

- Tow the watercraft slowly; water may enter the air intake and flood the engine compartment if the watercraft is towed too fast.
- Tow the watercraft using the bow eye ① only.
- The bow must be kept up out of the water during towing to prevent water from entering the engine compartment.



⚠WARNING

- The watercraft should only be towed in an emergency.
- The tow line should be long enough so that the watercraft will not collide with the towing boat when slowing down. A good rule of thumb is a tow line which is three times the combined length of the towing boat and the watercraft. A shorter length of rope can be used if the watercraft is towed very slowly.
- The operator of the towing boat must keep speed to a minimum and avoid traffic or obstacles which could be a hazard to the rider on the watercraft.



EJU00604a

Submerged watercraft

If the watercraft is submerged or flooded with water, follow the procedure below and consult a Yamaha dealer as soon as possible. Failure to do so may result in serious engine damage!

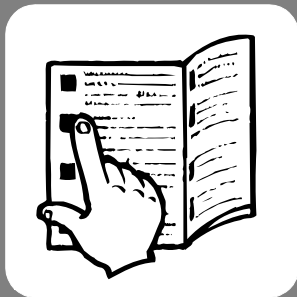
1. Beach the watercraft and remove the stern drain plugs to drain the water from the engine compartment.
2. Turn the fuel cock knob to "OFF."
3. Remove the spark plugs and dry them with a cloth.
4. Without reinstalling the spark plugs, crank the engine until all the water in the cylinders has been drained.
5. Install the stern drain plugs and the spark plugs.
6. Turn the fuel cock to "ON."
7. Launch the watercraft into the water, and then run the engine for at least 10 minutes. If the engine will not start, repeat steps above.
8. Turn the engine off. Turn the fuel cock to "OFF."
9. Have the watercraft inspected by a Yamaha dealer as soon as possible.



—MEMO—

EJU00608

APPENDIX



Limited warranty.....6-1

**YAMAHA EXTENDED SERVICE
(Y.E.S.)**6-3

Index.....6-4



Limited warranty

YAMAHA MOTOR CORPORATION, U.S.A. WATER VEHICLE LIMITED WARRANTY

Yamaha Motor Corporation is proud of its heritage and reputation for producing products with high standards of quality and workmanship. Product excellence provides the cornerstone for our commitment to customer satisfaction. The Yamaha Water Vehicle Limited Warranty is your assurance of this commitment.

This warranty provides you with protection against the expense of repairs for your water vehicle that are required as a result of defects in materials or workmanship. When maintained and utilized in the prescribed manner, you can count on your Yamaha water vehicle to provide reliable service.

This warranty provides you with specific coverage and notes your responsibilities in maintaining and operating your water vehicle. Please take the time to read and become familiar with this warranty.

PERIOD OF WARRANTY. Any new Yamaha water vehicle purchased for pleasure use from an authorized Yamaha water vehicle dealer in the United States, will be warranted against defects in material or workmanship for a period of one (1) year from date of purchase, subject to exclusions noted herein. Any Yamaha Water Vehicle 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. Replacement parts used in warranty repairs will be warranted for the balance of the applicable warranty period.

The warranty described here applies to water vehicles purchased and registered for use in the United States only. For warranty provisions outside the United States, contact the particular country's local Yamaha distributor.

OBTAINING REPAIRS UNDER WARRANTY. During the period of warranty, any authorized Yamaha water vehicle dealer will, free of charge, repair or replace, at Yamaha's option, any parts 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.

CUSTOMER'S RESPONSIBILITY. Under the terms of this warranty, the customer will be responsible for ensuring that the water vehicle is properly operated, maintained, and stored as specified in the applicable Owner's/Operator's Manual.

The owner of the water vehicle shall give notice to an authorized Yamaha water vehicle dealer of any and all apparent defects within ten [10] days of discovery and make the vehicle available at that time for inspection and repairs at the dealer's place of business.

GENERAL EXCLUSIONS FROM WARRANTY. This warranty will not cover the repair of damage if the damage is a result of abuse or neglect of the product. Examples of abuse and neglect include, but are not limited to:

1. Racing or competition use, modification of original parts abnormal strain.
2. Lack of proper maintenance and off season storage as described in the Owner's/Operator's Manual, installation of parts or accessories that are not equivalent in design and quality to genuine Yamaha parts.
3. Use of lubricants, oils, and fuel/oil mixtures that are not suitable for water vehicle motor use.
4. Damage as a result of accidents, collisions, contact with foreign materials, or submersion.
5. Growth of marine organisms on motor or hull surfaces.
6. Normal deterioration.
7. Gel coat stress cracks.

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 water vehicle to and from an authorized Yamaha water vehicle dealer are excluded from warranty coverage.

TRANSFER OF WARRANTY. Transfer of the warranty from the original purchaser to any subsequent purchaser is possible by having the vehicle inspected by an authorized Yamaha water vehicle dealer and requesting the dealer to submit a change of registration to Yamaha Motor Corporation, U.S.A. within ten [10] days of the transfer.

EMISSION CONTROL SYSTEM WARRANTY. Yamaha warrants to the ultimate purchaser and each subsequent, that this engine is 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 this engine is free from defects in materials and workmanship which cause said engine to fail to conform with applicable regulations for one (1) year from date of purchase.

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 LIMITATION 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 water vehicle 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 water vehicle 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 water vehicle 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 water vehicle dealer.

Q. Will the warranty be void or cancelled if I do not operate or maintain my new water vehicle exactly as specified in the Owner's/Operator's Manual?

A. No. The warranty on a new water vehicle 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 water vehicle dealer is expected to:

1. Completely set up each new water vehicle 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 water vehicle 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 water vehicle dealer for the policy to remain effective.

CUSTOMER SERVICE

If your water vehicle requires warranty service, you must take it to any authorized Yamaha water vehicle 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 compiled 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 water vehicle, 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.



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, or 36 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 \$150 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. You can also save money: Y.E.S. costs less within the first 90 days after you buy your Yamaha. See your dealer today!

A special note:

If visiting your dealer is not convenient, contact Yamaha with your Primary ID number (your engine 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
(714) 761-7631



YAMAHA EXTENDED SERVICE



Index

- 2-stroke engine oil..... 3-4
- A**
- Adjusting the carburetor 4-20
- Adjusting the trolling speed 4-20
- Adjusting the Yamaha Adjustable
Sponson (Y.A.S.) 4-22
- Approval label of Emission control
certificate 1-2
- B**
- Battery 3-8, 4-4
- Beaching the watercraft 3-30
- Bilge 3-7
- Bleeding the oil injection pump 4-21
- Boarding alone 3-23
- Boarding and starting in deep water 3-23
- Boarding with a passenger..... 3-24
- Bow down..... 2-12
- Bow up 2-12
- C**
- Capsized watercraft 3-25
- Caution labels 1-6
- Choke lever 2-8
- Cleaning and adjusting the spark
plugs..... 4-14
- Cleaning the jet intake and impeller 5-4
- Cleaning the watercraft 4-5
- Connecting the jumper cables..... 5-6
- Cooling water pilot outlet..... 2-10, 3-12
- Crossing 1-16
- Cruising limitations 1-9
- D**
- Docking the watercraft 3-30
- E**
- Emergency procedures 5-4
- Emission control information 1-2
- Engine break-in 3-13
- Engine compartment 3-6
- Engine overheat warning indicator..... 2-21
- Engine overheat warning system 2-13
- Engine serial number 1-1
- Engine shut-off cord (lanyard) 3-11
- Engine shut-off switch 2-8
- Engine stop switch 2-8
- Enjoy your watercraft responsibly 1-20
- Exhaust temperature warning
indicator..... 2-21
- Exhaust temperature warning system... 2-14
- F**
- Filling the fuel tank 3-3
- Filling the oil tank 3-4
- Fire extinguisher..... 3-9
- Fishing vessel right-of-way..... 1-17
- Flushing the cooling system..... 4-1
- Front storage compartment..... 2-22
- Fuel and oil..... 3-1
- Fuel and oil systems 3-6
- Fuel cock knob 2-7
- Fuel filter 4-10
- Fuel meter 2-19
- Fuel system..... 4-3
- Fuel tank 4-10
- Fuel tank filler cap 2-6
- Fuel warning indicator 2-20
- G**
- Gasohol 3-2
- Gasoline 3-1
- Getting to know your watercraft 3-19
- Give-way vessel 1-15
- Glove compartment..... 2-23
- H**
- Handgrip..... 2-16
- Hazard information 1-13
- Hood..... 2-6
- Hour meter 2-19
- Hull Identification Number (HIN)..... 1-1
- I**
- Identification numbers 1-1
- Important labels..... 1-3
- Inspecting and adjusting the throttle
cable..... 4-12
- Inspecting the battery..... 4-18
- Inspecting the fuel system..... 4-9
- Inspecting the oil injection system..... 4-11



Inspecting the QSTS mechanism.....	4-13	Pre-operation checks	3-5
Inspecting the steering cable	4-12	Primary Identification (PRI-ID) number ...	1-1
J		Q	
Jet unit.....	3-11	Quick Shift Trim System (QSTS)	
Jumping the battery.....	5-5	selector.....	2-11
L		R	
Label location	1-3	Reading buoys and other markers	1-17
Learning to operate your watercraft	3-19	Replacing the fuse	4-21
Leaving the watercraft.....	3-18	Reset button.....	2-18
Limitations on who may operate the		Riding watercraft with a passenger	3-20
watercraft	1-8	Rough water operation.....	3-30
Limited warranty	6-1	Rules of the Road	1-15
Location of main components	2-1	Rules when encountering vessels.....	1-16
Lubrication.....	4-3	S	
Lubrication points	4-15	Safety information	1-8
M		Sailing vessel right-of-way	1-17
Maintenance and adjustments	4-6	Seat.....	2-5
Manufactured date label.....	1-2	Specifications	4-23
Meeting	1-16	Speedometer.....	2-18
Multifunction information center ...	2-17, 3-12	Stand-on vessel	1-15
N		Starting and boarding in shallow	
Narrow channels and bends	1-17	water	3-22
O		Starting from a dock	3-22
Oil filter	4-11	Starting the engine	3-15
Oil tank	4-11	Starting the watercraft	3-21
Oil tank filler cap.....	2-6	Start switch.....	2-9
Oil warning indicator.....	2-20	Steering and sailing rules	1-15
Operating your watercraft.....	3-19	Steering system	2-10, 3-10
Operation	3-13	Stopping the engine	3-18
Operation of controls and other		Stopping the watercraft	3-29
functions.....	2-5	Storage.....	4-1
Operation requirements	1-10	Storage compartments.....	2-22
Other labels.....	1-7	Submerged watercraft.....	5-8
Other sources.....	1-19	Switches	3-12
Other special situations	1-17	T	
Overtaking.....	1-17	Tachometer	2-18
Owner's/Operator's Manual and tool		Throttle	3-10
kit.....	4-7	Throttle lever	2-9
P		To get more boating safety	
Periodic maintenance chart.....	4-8	information	1-19
Post-operation checks.....	3-31	Towing the watercraft.....	5-7
Pre-operation check list.....	3-5	Transporting	3-33
Pre-operation check points	3-6	Troubleshooting	5-1



Troubleshooting chart	5-1
Turning the watercraft	3-27

U

United States Coast Guard	1-19
---------------------------------	------

W

Warning labels	1-4
Watercraft characteristics.....	1-13
Watercraft Education and Training.....	1-19
Water separator	3-7

Y

Yamaha Adjustable Sponson (Y.A.S.) ..	2-23
YAMAHA EXTENDED SERVICE (Y.E.S.).....	6-3



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