



2008 SuperJet

OWNER'S/OPERATOR'S MANUAL

**READ THIS MANUAL
CAREFULLY BEFORE OPERATION!**

U.S.A. Edition

YAMAHA MOTOR CORPORATION, USA

LIT-18626-07-20

F2F-28199-10

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

Important manual information

EJU30140

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.

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!

EWJ00080



WARNING

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

ECJ00090

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.

EJU30200

SuperJet

OWNER'S/OPERATOR'S MANUAL
©2007 by Yamaha Motor Corporation,
USA

1st Edition, July 2007

All rights reserved.

Any reprinting or unauthorized use
without the written permission of
Yamaha Motor Corporation, USA
is expressly prohibited.

Printed in Japan

P/N LIT-18626-07-20

Table of contents

General and important labels	1	Bow rope hole	28
Identification numbers	1	Stern rope hole	28
Primary Identification (PRI-ID)		Engine overheat warning system	28
number	1	Storage pouch	29
Hull Identification Number (HIN)	1		
Engine serial number	1	Operation	31
Emission control information	2	Fuel and oil	31
Approval label of emission control		Gasoline	31
certificate	2	2-stroke engine oil	31
Manufactured date label	2	Mixing fuel and oil	31
Important labels	3	Filling the fuel tank	32
Warning labels	4	Pre-operation checks	33
Other labels	6	Pre-operation check list	33
		Pre-operation check points	34
Safety information	8	Operation	39
Limitations on who may operate		Engine break-in	39
the watercraft	8	Launching the watercraft	40
Cruising limitations	9	Starting the engine	40
Operation requirements	10	Stopping the engine	42
Recommended equipment	13	Leaving the watercraft	42
Hazard information	13	Operating your watercraft	42
Watercraft characteristics	14	Getting to know your watercraft	42
Rules of the Road	15	Learning to operate your	
To get more boating safety		watercraft	42
information	19	Operating positions	43
Enjoy your watercraft		Starting the watercraft	44
responsibly	20	Boarding and starting in deep	
		water	45
Features and functions	21	Capsized watercraft	46
Location of main components	21	Turning the watercraft	47
Operation of controls and other		Stopping the watercraft	49
functions	23	Beaching the watercraft	49
Hood	23	Rough water operation	49
Fuel tank filler cap	24	Post-operation care	50
Fuel cock knob	24	Transporting	51
Engine stop switch	25		
Engine shut-off switch	25	Maintenance and care	52
Start switch	26	Storage	52
Choke knob	26	Flushing the cooling system	52
Throttle lever	26	Lubrication	53
Cooling water pilot outlet	26	Fuel system	53
Steering system	27	Battery	54
Steering pole	28	Cleaning the watercraft	54

Table of contents

Maintenance and adjustments	55
Owner's/operator's manual and tool kit	56
Periodic maintenance chart	57
Checking the fuel system	59
Checking the jet thrust nozzle angle	59
Adjusting the steering friction	60
Adjusting the jet thrust nozzle angle	61
Checking and adjusting the throttle cable	62
Cleaning and adjusting the spark plugs	63
Lubrication points	64
Adjusting the choke cable	65
Checking the battery	66
Adjusting the carburetor	67
Specifications	68
Specifications	68
Trouble recovery	69
Troubleshooting	69
Troubleshooting chart	69
Emergency procedures	71
Cleaning the jet intake and impeller	71
Jumping the battery	72
Replacing the fuse	73
Towing the watercraft	73
Submerged watercraft	74
Consumer information.....	75
Limited warranty	75
YAMAHA EXTENDED SERVICE (Y.E.S.)	77

General and important labels

EJU30260

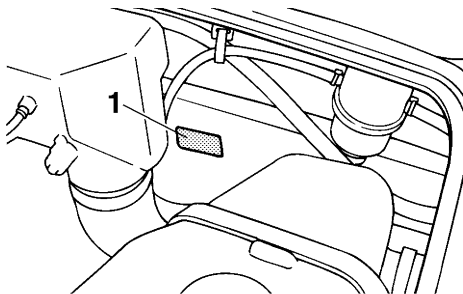
Identification numbers

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

EJU30270

Primary Identification (PRI-ID) number

The PRI-ID number is stamped on a plate attached inside the engine compartment.



1 Primary Identification (PRI-ID) number location

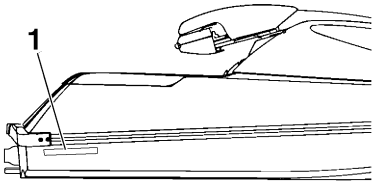
MODEL	
PRI-I.D.	
F2F	
YAMAHA MOTOR CO., LTD	
MADE IN JAPAN	
PAYS D'ORIGINE JAPON	

F	2	F	-						
---	---	---	---	--	--	--	--	--	--

EJU30290

Hull Identification Number (HIN)

The HIN is stamped on a plate attached to the hull on the aft, starboard (right) side.



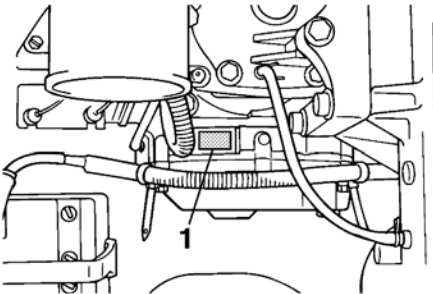
1 Hull Identification Number (HIN) location

J	P	-	Y	A	M									
---	---	---	---	---	---	--	--	--	--	--	--	--	--	--

EJU30310

Engine serial number

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



1 Engine serial number location

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

General and important labels

EJU30340

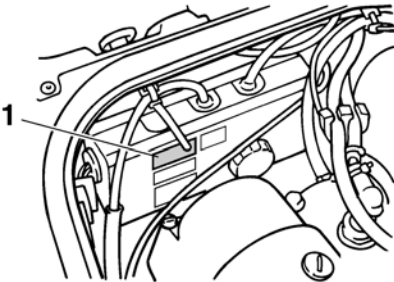
Emission control information

This engine conforms to 2008 U.S. Environmental Protection Agency (EPA) regulations for marine SI engines.

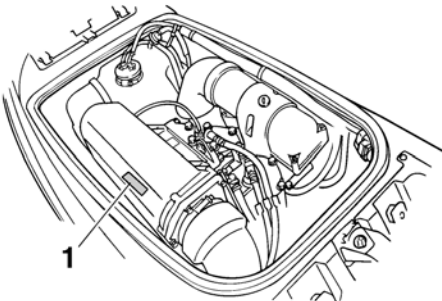
EJU30370

Approval label of emission control certificate

This label is attached to the electrical box and muffler.



1 Emission control information label location

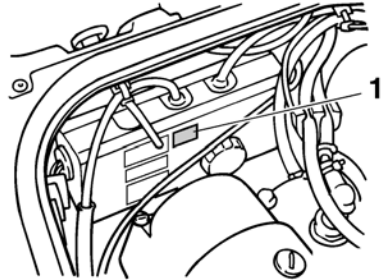


1 Emission control information label location

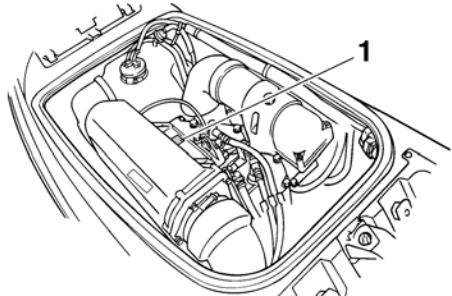
EJU30410

Manufactured date label

This label is attached to the electrical box and muffler.



1 Manufactured date label location



1 Manufactured date label location

YAMAHA

Manufactured:

--	--	--	--	--	--

EMISSION CONTROL INFORMATION

ENGINE FAMILY :

THIS ENGINE CONFORMS TO U.S. EPA REGULATIONS FOR MARINE SI ENGINES.

FELS : g/kw-hr

SPARK PLUG GAP (mm) :

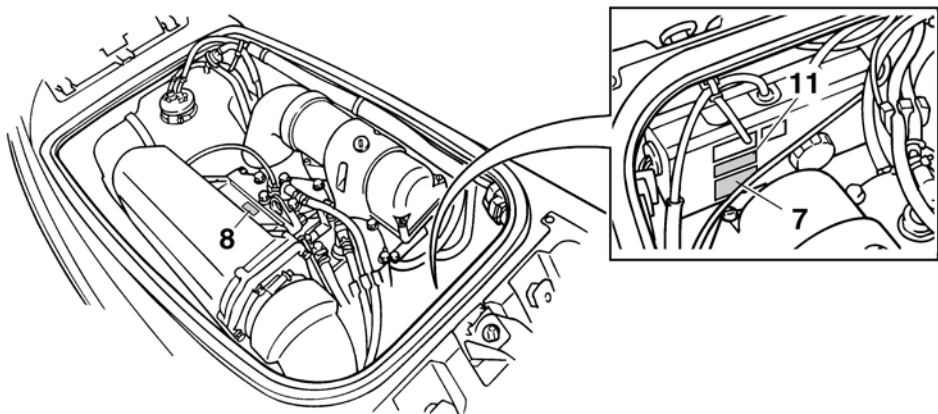
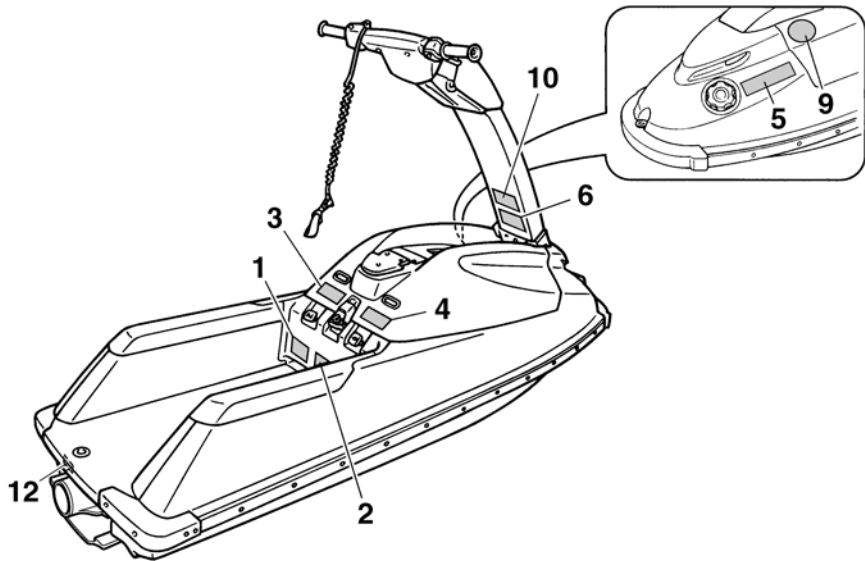
TROLLING SPEED : rpm

YAMAHA MOTOR CO.,LTD.

General and important labels

EJU30450

Important labels



General and important labels

EJU35910

Warning labels

1

⚠ 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.

continued on label to the right

YAMAHA

GM6-641B2-00

2

⚠ WARNING

continued

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

GM6-641B2-10

3

⚠ WARNING

To reduce the risk of SEVERE INJURY or DEATH:

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

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

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

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



continued on label to the right

YAMAHA

GM6-641B1-01

General and important labels

4

**WARNING**

continued

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.

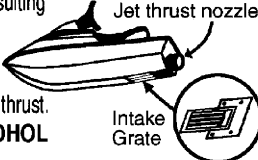
DO NOT APPLY THROTTLE WHEN OTHERS ARE AT REAR OF PWC-turn engine off or keep engine at idle. Water and/or debris exiting jet thrust nozzle can cause severe injury.

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.

AVOID FORCEFUL JET THRUST AND LIMITED VISIBILITY WHILE REBOARDING. Get to standing or kneeling position quickly, but do not expose yourself to forceful jet thrust.

NEVER RIDE AFTER CONSUMING DRUGS OR ALCOHOL

READ AND FOLLOW OWNER'S MANUAL



Jet thrust nozzle

Intake Grate

YAMAHA

GM6-641B1-10

5

**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. Open hood 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.

GASOLINE AND OIL MIXING RATIO : 50:1

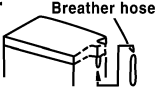
YAMAHA

F1N-6415B-00

6

**WARNING**

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



Breather hose

YAMAHA

F1N-641DB-00

7

**WARNING / AVERTISSEMENT / 警告**

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

Ne pas toucher ou retirer les pièces électriques lors du démarrage ou de la marche du moteur.

運転中は電装品には触らないでください。

YAMAHA

696-63623-00

General and important labels

EJU35923

Other labels

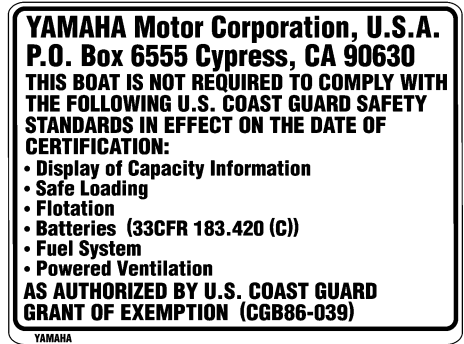
8



9



10



GM6-6418E-00

11

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

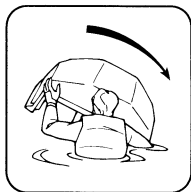
YAMAHA

60E-83627-00

General and important labels

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

12



EU0-64188-00

EJU30670

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

- Before operating the watercraft, read this owner's/operator's manual, the Riding Practice Guide, the Riding Instruction card, and all 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 this 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.

EJU30690

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 only. Never have more than one person on the watercraft at any time.

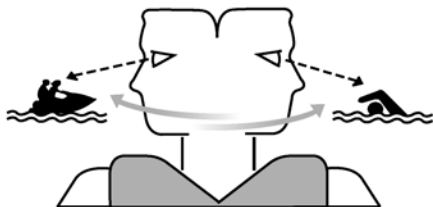


Safety information

EJU30751

Cruising limitations

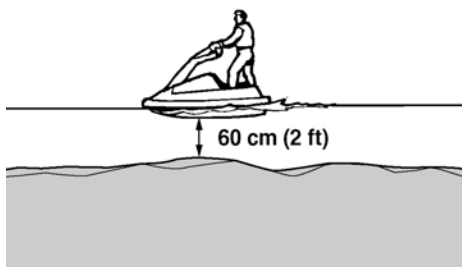
- Scan constantly for people, objects, and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.



- 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.
- Take early action to avoid collisions. Remember, watercraft and other boats do not have brakes.
- Do not release the throttle lever when trying to steer away from objects—you need throttle to steer. Always check throttle and steering controls before starting the watercraft.
- Operate 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, an-

kles, and other bones. Do not jump wakes or waves.

- Do not operate the watercraft in rough water, bad weather, or when visibility is poor; this may lead to an accident causing injury or death. Be alert to the possibility of adverse weather. Take note of weather forecasts and the prevailing weather conditions before setting out on your watercraft.
- As with any water sport, you should not operate your watercraft without someone else nearby. If you operate further than swimming distance from shore, you should be accompanied by another boat or watercraft, but make sure you stay a safe distance away. It's good, common sense!
- Never operate in water that is less than 60 cm (2 ft) deep, otherwise you increase your chance of hitting a submerged object, which could result in injury.



- This watercraft is not equipped with lighting required for night operation. Do not operate the watercraft after sunset or before dawn, otherwise you increase the risk of colliding

with another boat, which could result in severe injury or death.

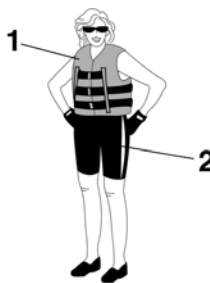


- Follow navigation rules, and state/provincial and local laws that apply to watercraft.

EJU30770

Operation requirements

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



1 USCG approved PFD

2 Wetsuit bottom

- Eye protection is recommended to keep wind, water, and glare from the sun out of your eyes while you operate your watercraft. Restraining straps for eyewear are made which are designed to float should your eyewear fall in the water. Footwear and gloves are recommended.
- Helmets meeting Snell or DOT standards are required for IJSBA-sanctioned races. You must decide whether to wear a helmet while you ride for recreation. You should

Safety information

know that a helmet could help protect you in certain kinds of accidents and that it could injure you in others.

A helmet is designed to provide some head protection. Although helmets cannot protect against all foreseeable impacts, a helmet might reduce your injuries in a collision with a boat or other obstacle.

A helmet may have potential safety hazards, as well. Falling into the water could risk the chance of the helmet catching water, commonly known as “bucketing”, and the resulting strain on your neck could cause choking, severe and permanent neck injuries, or death. A helmet could also increase the risk of an accident if it reduces your vision or hearing, or if it distracts you or increases your fatigue.

How should you decide if a helmet’s potential safety benefits outweigh its potential risks for you? Consider your particular riding conditions. Consider factors such as your riding environment and your riding style and ability. Also consider the likelihood of traffic congestion, and the water surface conditions. If you decide to wear a helmet based upon your riding circumstances, choose one carefully. Look for a helmet designed for personal watercraft use, if possible. Consider a helmet meeting Snell or DOT standards. If you will be engaging in closed-course competition, follow the helmet requirements of the sanctioning organization.

- NEVER operate the watercraft after consuming alcohol or taking other drugs.



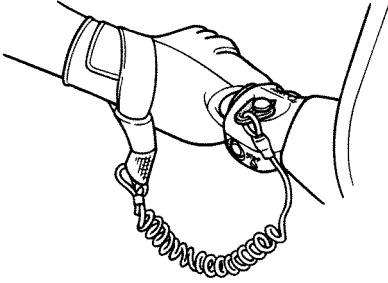
- For reasons of safety and proper care of the watercraft, always perform the pre-operation checks listed on page 33 before operating the watercraft.
- The operator should always keep both feet or knees on the riding tray when the watercraft is in motion. Lifting your feet increases the chances of losing your balance or hitting objects outside the watercraft with your feet.



- Always consult your doctor on whether it is safe for you to operate 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 to your left wrist and keep it free from the handlebars

Safety information

so that the engine stops if you, the operator, fall 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 if you maneuver more quickly than other boaters expect, you risk a collision.
- Maintain a safe distance from other boats and watercraft, and also watch for ski ropes or fishing lines. Obey the “Rules of the Road” and be sure to check behind you before making a turn. (See “Rules of the Road” on page 15.)
- According to the USCG, boats under 6.1 m (20 ft) in length like your watercraft **MUST** carry a fire extinguisher of a B-1 classification, with a capacity of two pounds or more when navigating in waters under USCG jurisdiction. In addition, most state and local

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



Safety information

EJU30830

Recommended equipment

The following items should be carried on board your watercraft:

- Sound-signaling device

You should carry a whistle or other sound-signaling device that can be used to signal other boats. See “Rules of the Road” for more information.

- Visual distress signals

It is recommended that a U.S. Coast Guard approved pyrotechnic device be stored in a waterproof container on your watercraft. A mirror can also be used as an emergency signal. Contact a Yamaha dealer or the U.S. Coast Guard for more information.

- Watch

A watch is helpful so you will know how long you have been operating the watercraft.

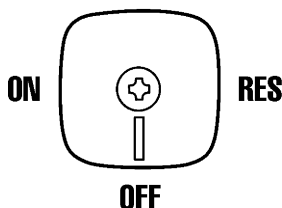
- Towline

A towline can be used to tow a disabled watercraft in an emergency.

EJU30850

Hazard information

- When transporting or storing your watercraft, always turn the fuel cock knob to “OFF”, 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.

EJU30880

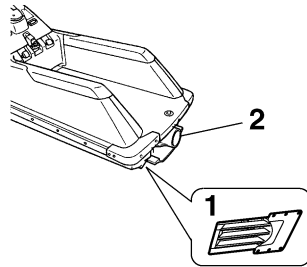
Watercraft characteristics

- Jet thrust turns the watercraft. Releasing the throttle lever completely produces only minimum thrust. If you are traveling at speeds above trolling, you will have rapidly decreasing ability to steer without throttle. You may still have some turning ability immediately after releasing the throttle lever, but once the engine slows down, the watercraft will no longer respond to handlebar input until you apply throttle again or you reach trolling speed.

Practice turning in an open area without obstacles until you have a good feel for this maneuver.

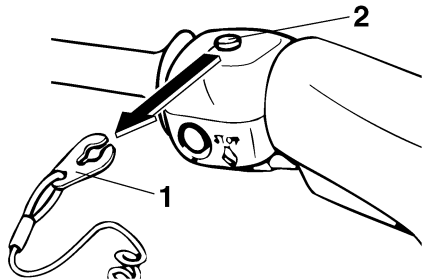
- This watercraft is water-jet propelled. The jet pump is directly connected to the engine. This means that jet thrust will produce some movement whenever the engine is running. There is no “neutral” position.
- Keep away from the intake grate while the engine is on. Items such as long hair, loose clothing, or PFD straps can become entangled in moving parts, resulting in severe injury or drowning.
- Never insert any object into the jet thrust nozzle while the engine is running. Severe injury or death could result from coming in

contact with the rotating parts of the jet pump.



- 1 Intake grate
- 2 Jet thrust nozzle

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



- 1 Clip
- 2 Engine shut-off switch

- Avoid forceful jet thrust and limited visibility while reboarding. Get to a standing or kneeling position quickly, but do not expose yourself to the forceful jet thrust.

Safety information

EJU30960

Rules of the Road

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

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

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

Steering and sailing rules

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

Stand-on vessel

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

Give-way vessel

The vessel which does not have the right-of-way has the duty to take positive and timely action to stay out of the way of the stand-on vessel. Normally, you should not cross in front of the vessel with the right-of-way. You should slow down or change directions briefly and pass behind the other vessel. You should always move in such a way that the operator of the other vessel can see what you are doing. The General Prudential Rule regarding the right-of-way is that if a collision appears unavoidable, neither boat has the right-of-way. Both boats must avoid the collision.

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

Rules when encountering vessels

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

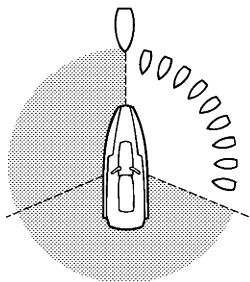
Meeting: you are approaching another vessel head-on

Crossing: you are traveling across another vessel's path

Overtaking: you are passing or being passed by another vessel

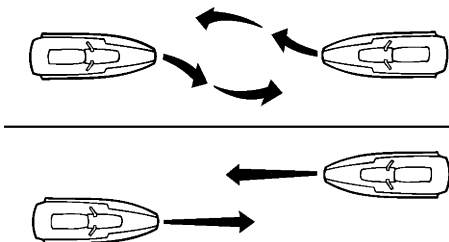
In the following illustration, your watercraft is in the center. You should give the right-of-way to any vessels shown in the white area (you are the give-way vessel). Any vessels in the shaded area must yield to you (they are the

give-way vessels). Both you and the meeting vessel must alter course to avoid each other.



Meeting

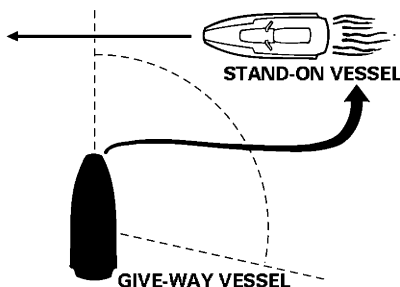
If you are meeting another power-driven vessel head on, and are close enough to run the risk of collision, neither of you has the right-of-way! Both of you should alter course to avoid an accident. You should keep the other vessel on your port (left) side. This rule does not apply if both of you will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



Crossing

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

Safety information

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:

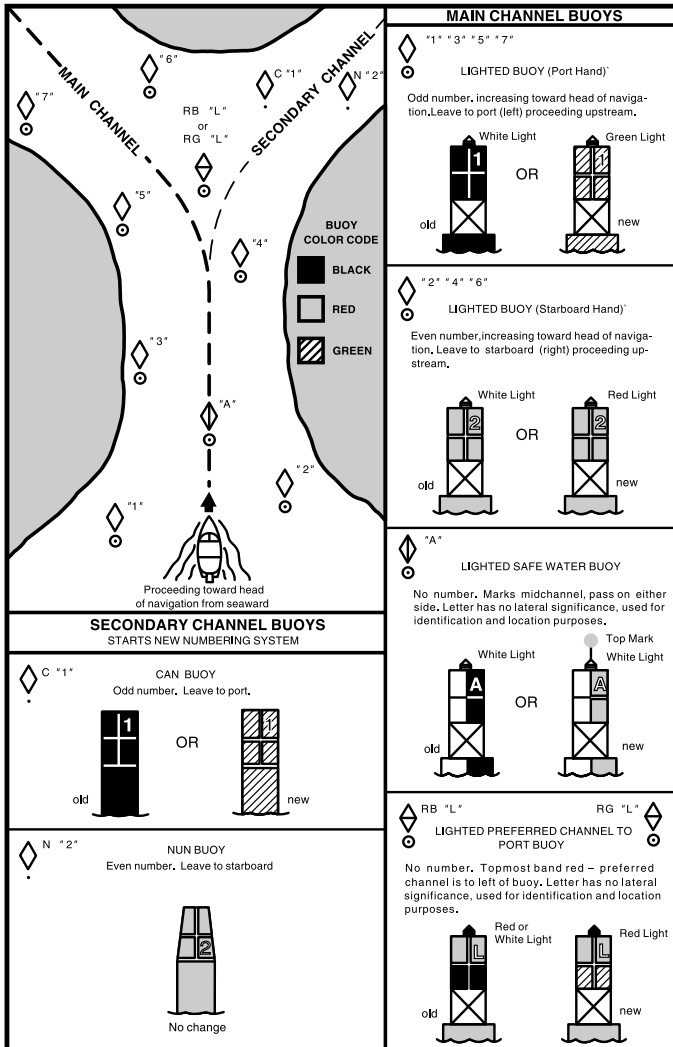
- (1) When the sailing vessel is overtaking the power-driven vessel, the power-driven vessel has the right-of-way.
- (2) Sailing vessels should keep clear of any fishing vessel.
- (3) In a narrow channel, a sailing vessel should not hamper the safe passage of a power-driven vessel that can navigate only 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.

Safety information

EJU30980

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

Other sources

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

Watercraft Education and Training

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

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

The Online Boating Safety Course:
<http://www.boatus.com/onlinecourse/>

EJU30990

Enjoy your watercraft responsibly

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

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

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

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

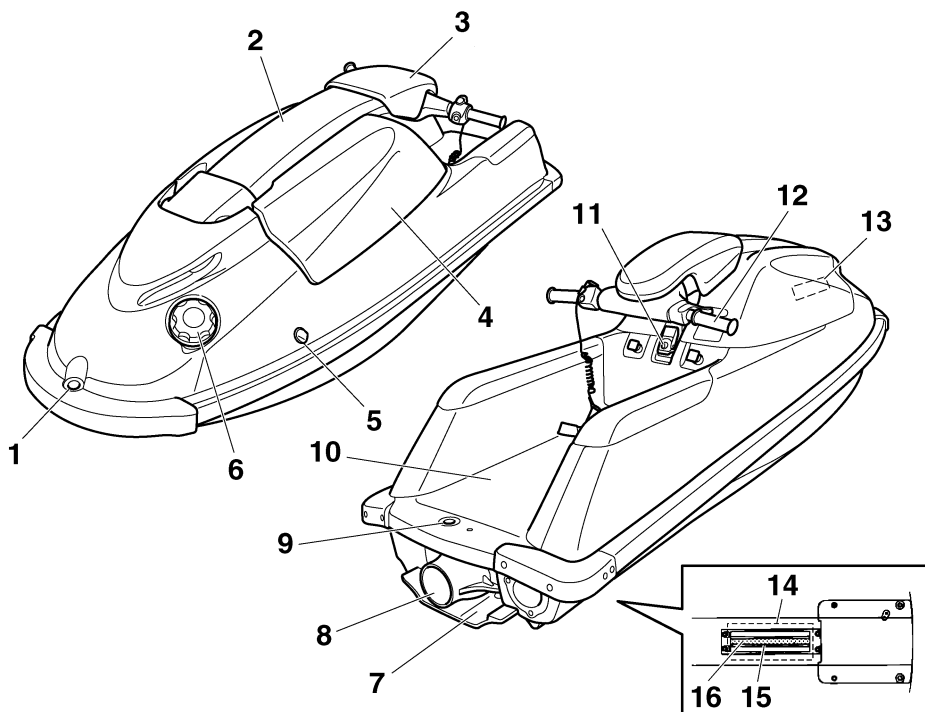
Remember, pollution can be harmful to the environment. Do not refuel or add oil where a spill could cause damage to nature. Remove your watercraft from the water and move it away from the shoreline before refueling. And keep your surroundings pleasant for the people and wildlife that share the waterways: 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.

Features and functions

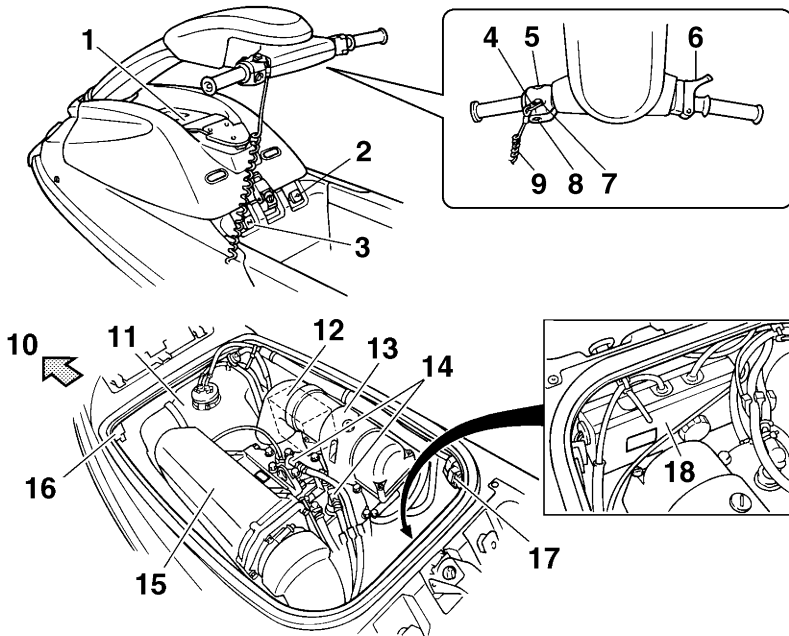
EJU31010

Location of main components



- 1 Bow rope hole
- 2 Steering pole
- 3 Steering pole cover
- 4 Hood
- 5 Cooling water pilot outlet
- 6 Fuel tank filler cap
- 7 Ride plate
- 8 Jet thrust nozzle
- 9 Stern rope hole
- 10 Riding tray
- 11 Hood latch
- 12 Handlebars
- 13 Storage pouch
- 14 Jet intake
- 15 Intake grate
- 16 Drive shaft

Features and functions



- 1 Fire extinguisher container
- 2 Fuel cock knob
- 3 Choke knob
- 4 Clip
- 5 Start switch
- 6 Throttle lever
- 7 Engine shut-off switch
- 8 Engine stop switch
- 9 Engine shut-off cord (lanyard)
- 10 Bow
- 11 Fuel tank
- 12 Battery
- 13 Silencer
- 14 Spark plugs/Spark plug caps
- 15 Muffler
- 16 Water separator
- 17 Fuel filter
- 18 Electrical box

Features and functions

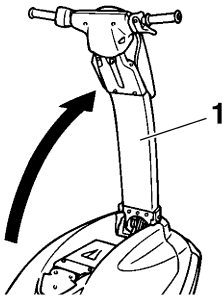
EJU31020

Operation of controls and other functions

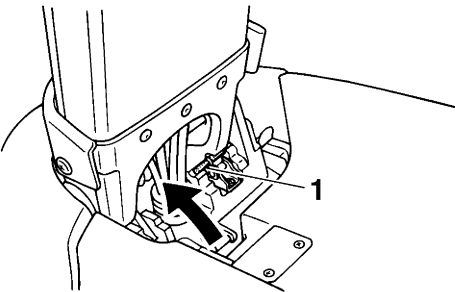
EJU31052

Hood

The hood is secured at the rear by a latch. Lift the steering pole and support it with the lock pin before removing the hood.



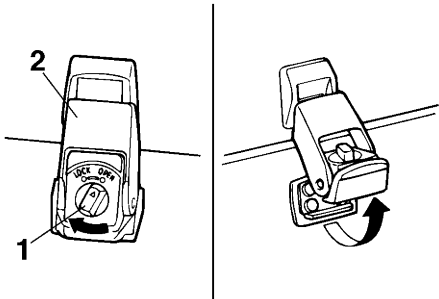
1 Steering pole



1 Lock pin

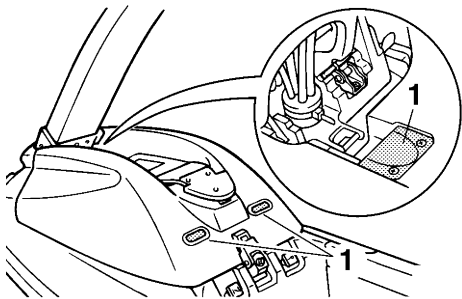
To remove the hood:

- (1) Turn the latch knob to the open position, and then pull up on the hood latch to unlatch the hood.



- 1 Hood latch knob
2 Hood latch

- (2) Grasp the hood using the handgrips provided at the front and rear of the hood. Lift the hood up and to the rear to remove it.

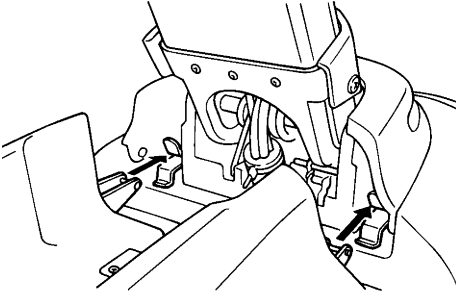


1 Handgrip

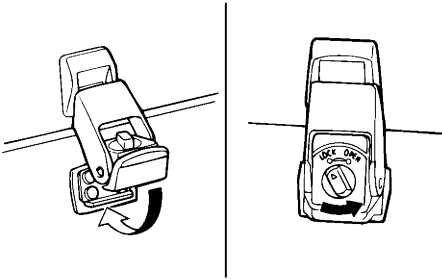
Features and functions

To install the hood:

- (1) Position the hood on the deck so that the two projections at the front of the hood fit under the two stays on the deck.



- (2) Push down on the hood latch, and then turn the knob to the lock position.



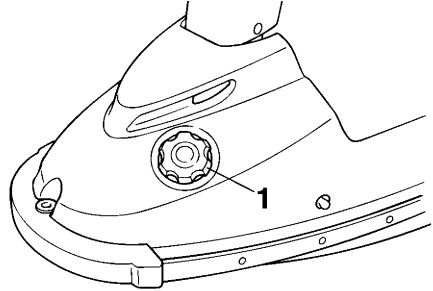
NOTE:

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

EJU31090

Fuel tank filler cap

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



1 Fuel tank filler cap

NOTE:

Make sure that the fuel tank filler cap is securely closed before operating the watercraft.

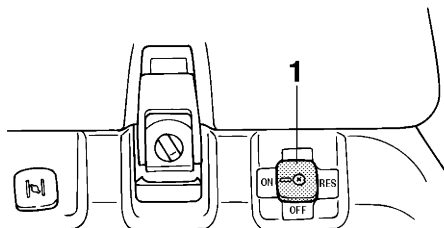
EJU31120

Fuel cock knob

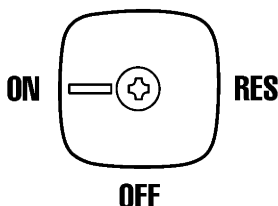
The fuel cock supplies fuel from the fuel tank to the carburetors.

Features and functions

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



1 Fuel cock knob



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.

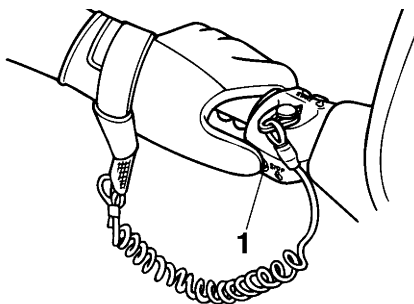
RES:

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"!

EJU31150

Engine stop switch

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

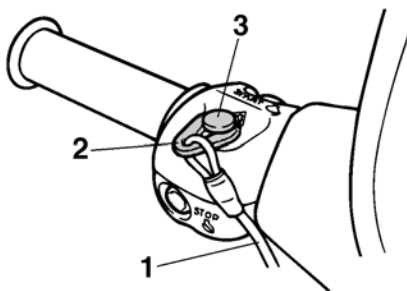


1 Engine stop switch

EJU31160

Engine shut-off switch

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



1 Engine shut-off cord

2 Clip

3 Engine shut-off switch

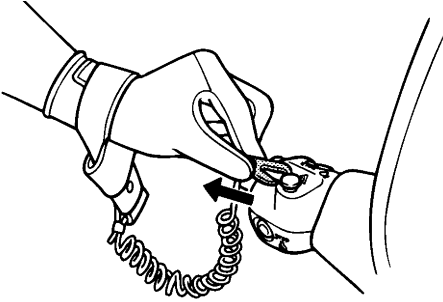
EWJ00010

WARNING

- Always attach the engine shut-off cord to your left wrist and the clip to the engine shut-off switch BEFORE starting the engine.

Features and functions

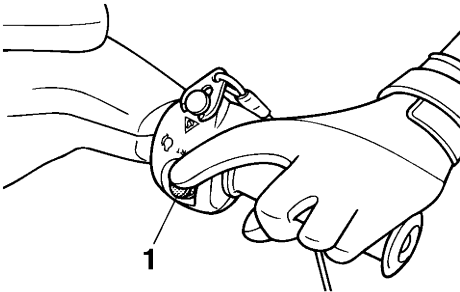
- To prevent accidental starting of the engine or unauthorized use by children or others, always remove the clip from the engine shut-off switch when the engine is not running.



EJU31170

Start switch

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



1 Start switch

NOTE:

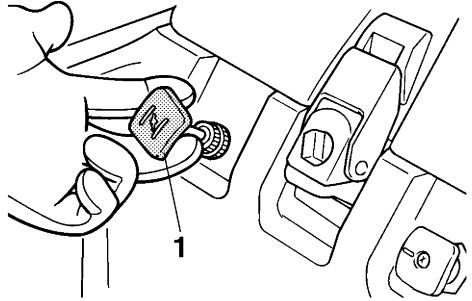
The engine will not start when the clip is removed from the engine shut-off switch.

EJU31200

Choke knob

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

Pull the choke knob out to turn the choke on.



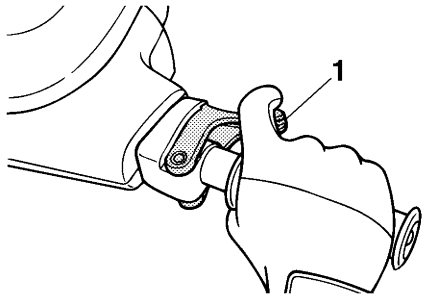
1 Choke knob

Push the choke knob in to turn the choke off.

EJU31210

Throttle lever

Squeeze the throttle lever to increase engine speed.



1 Throttle lever

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

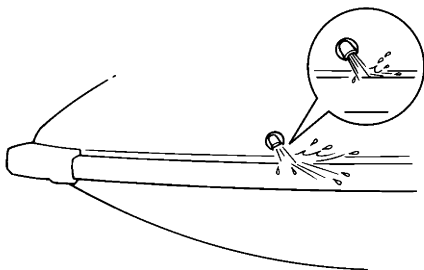
EJU31220

Cooling water pilot outlet

This watercraft is equipped with a cooling water pilot outlet.

Features and functions

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



To check for proper operation of the cooling system, check that water is being discharged from the pilot outlet. If water is not being discharged from the outlet, cooling water may not be circulating in the engine. When this occurs, stop the engine and check for the cause. (See pages 28 and 71 for more information.)

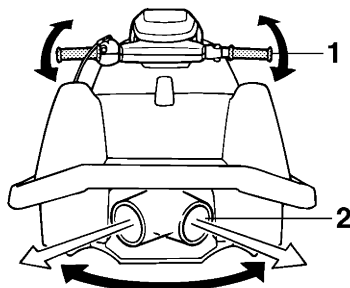
NOTE:

- If the cooling water passages are dry, it will take about 20 seconds for the water to reach the outlet after the engine is started.
- Water discharge may not be constant at idle, therefore, open the throttle a little to check that water discharges properly.

EJU35930

Steering system

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



- 1 Handlebar
- 2 Jet thrust nozzle

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

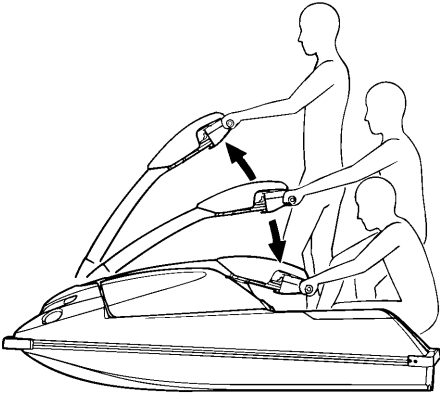
The angle of the jet thrust nozzle can be adjusted to suit operator preference. (See page 61 for adjustment procedures.)

Features and functions

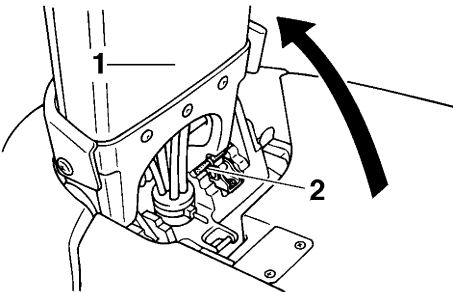
EJU31270

Steering pole

The steering pole varies in height with the operator's posture, enabling the operator to assume various riding positions.



When removing the hood for pre-operation checks, maintenance, etc., lift the steering pole and use the lock pin to support it. Move the lock pin into the detent. Make sure that the lock pin is returned to the stowed position after installing the hood.



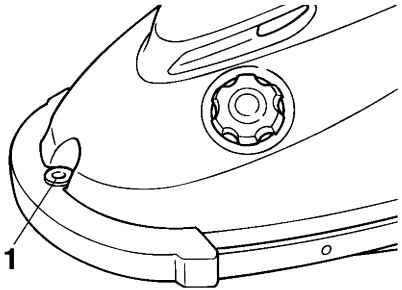
- 1 Steering pole
- 2 Lock pin

EJU36000

Bow rope hole

The bow rope hole is located at the bow of the watercraft.

The bow rope hole is used to attach a rope to the watercraft when transporting, mooring, or towing it in an emergency.



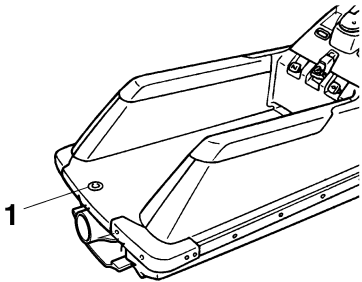
- 1 Bow rope hole

EJU36010

Stern rope hole

The stern rope hole is located at the stern of the watercraft.

The stern rope hole is used to attach a rope to the watercraft when mooring it.



- 1 Stern rope hole

EJU31660

Engine overheat warning system

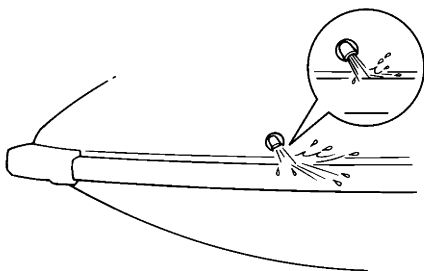
This model is equipped with an engine overheat warning system.

If the engine starts to overheat, the engine speed will be limited to about 3400 r/min.

If this occurs, immediately reduce the engine speed, return to shore, and then check for water discharge at the cooling water pilot outlet while the engine is running. If there is no discharge of water, shut the engine off, and then

Features and functions

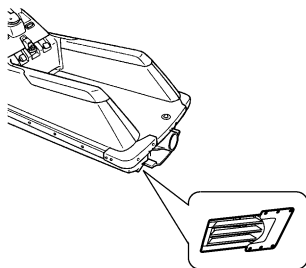
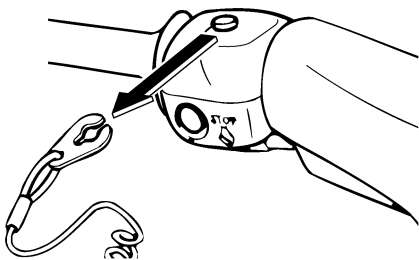
check the intake grate and impeller for clogging.



EWJ00050

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.



EGJ00040

CAUTION:

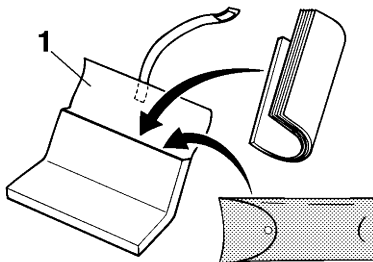
If you cannot locate and correct the cause of the overheating, consult a Yamaha dealer. Continuing to operate at higher speeds could result in severe engine damage.

EJU31671

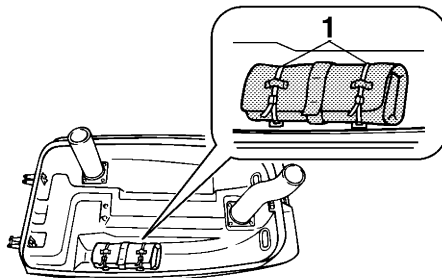
Storage pouch

A storage pouch is provided on the underside of the hood for the owner's/operator's manual, tool kit, and other small items.

Bend the owner's/operator's manual slightly to insert it into the storage pouch, and then add the tool kit and any other small items. Fold the pouch, and then wrap the strap around it. Install the storage pouch on the hood and secure it with the bands.



1 Storage pouch



1 Band

NOTE: _____

The storage pouch is not waterproof. If you carry objects that must be kept dry, such as the manual, put them in a waterproof bag.

Operation

EJU31790

Fuel and oil

EJU31831

Gasoline

EWJ00290



WARNING

GASOLINE AND ITS VAPORS ARE HIGHLY FLAMMABLE AND EXPLOSIVE!

- Do not smoke when refueling, and keep away from sparks, flames, and other sources of ignition.
- Stop the engine before refueling.
- Refuel in a well-ventilated area with the watercraft in a horizontal position.
- 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. If temporarily leaving the watercraft with a full fuel tank, do not leave it in direct sunlight. Leave it in a well-ventilated area with the watercraft in a horizontal position.
- Tighten the fuel tank 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 on your skin or clothing, immediately wash the affected area with soap and water and change your clothes.

ECJ00310

CAUTION:

Use only fresh gasoline that has been stored in clean containers.

Recommended gasoline:

Regular unleaded gasoline with a minimum octane rating of

$$86 \text{ (Pump octane number)} = (R + M)/2$$

90 (Research octane number)

EJU31860

Gasohol

There are two types of gasohol: gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if ethanol content does not exceed 10% and the fuel meets the minimum octane ratings.

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

EJU31871

2-stroke engine oil

Recommended engine oil:

YAMALUBE 2-W or TC-W3 outboard motor oil or equivalent

If YAMALUBE 2-W engine oil is not available, another 2-stroke engine oil with an NMMA-certified TC-W3 rating may be used.

EJU31900

Mixing fuel and oil

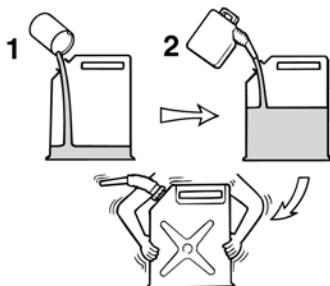
ECJ00330

CAUTION:

- Avoid using any mixture of gasoline and oil other than those specified.
- Make sure that the gasoline and oil are thoroughly mixed in the correct ratio, otherwise the following problems may occur. Too little oil in the fuel-to-oil ratio could result in major engine trouble, such as seizure. Too much oil in the fuel-

to-oil ratio could result in fouled spark plugs, smoky exhaust, and heavy carbon deposits.

Pour 2-stroke engine oil into a clean container, and then add gasoline. To mix them thoroughly, shake the container from side to side.



- 1 2-stroke engine oil
- 2 Gasoline

Fuel-to-oil ratios (gasoline to oil)
Break-in period (first two tankfuls):
25 : 1
After break-in:
50 : 1

EJU31910

Filling the fuel tank

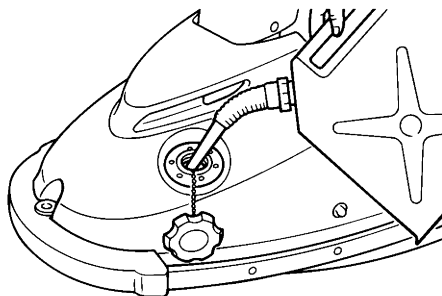
ECJ00290

CAUTION:

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

- (1) Lift the steering pole and support it with the lock pin.
- (2) Remove the hood. (See page 23 for hood removal and installation procedures.)
- (3) Remove the fuel tank filler cap, and then slowly add the premixed fuel to the fuel

tank. Stop filling when the fuel level just reaches the bottom of the filler tube.



- (4) Install the fuel tank filler cap and the hood.

NOTE:

- The hood must be removed in order to view the fuel level in the fuel tank while adding fuel.
- Be careful not to spill fuel or overfill the fuel tank.
- Do not fill up the filler tube because fuel expands as it warms up and could overflow.

Fuel tank capacity:

Total:

18 L (4.8 US gal) (4.0 Imp.gal)

Reserve:

5.5 L (1.5 US gal) (1.2 Imp.gal)

EJU31980

Pre-operation checks

EJU31990

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.

EWJ00410



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
BEFORE LAUNCH OR OPERATION		
Engine compartment	Remove the hood to ventilate the engine compartment. Check for fuel vapors and loose electrical connections.	34
Bilge	Check for water and fuel and drain if necessary.	35
Throttle lever	Check that the throttle lever springs back smoothly.	36
Steering system	Check for proper operation.	37
Fuel	Check the fuel level and replenish if necessary. Check the hoses and tank for leakage.	34
Water separator	Check for water and drain if necessary.	34
Battery	Check the electrolyte level and battery condition.	35
Hood	Check that the hood is securely closed.	23
Hull and deck	Check the hull and deck for cracks and other damage.	34
Jet intake	Check for debris and remove if necessary.	37
Fire extinguisher	Check the condition and replace if necessary.	35
Engine shut-off cord	Check the condition and replace if frayed or broken.	38
Switches	Check the start switch, engine stop switch, and engine shut-off switch for proper operation.	38
AFTER LAUNCH		
Cooling water pilot outlet	Check that water is discharged while the engine is running and the watercraft is in the water.	38

NOTE: Pre-operation checks should be made each time the watercraft is used. These checks can be completed in a short time. It is worth the time spent to ensure safety and reliability.

EJU32280

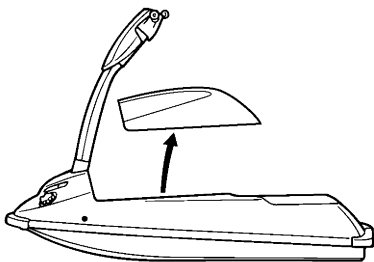
Pre-operation check points

EJU32290

Engine compartment

Ventilate the engine compartment before each use.

To ventilate the engine compartment, lift the steering pole and support it with the lock pin, and then remove the hood. (See page 23 for hood removal and installation procedures.) Leave the engine compartment open for a few minutes to allow any fuel vapors to escape. While the engine compartment is open, check for loose electrical connections.



EWJ00460

WARNING

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

EJU32350

Hull and deck

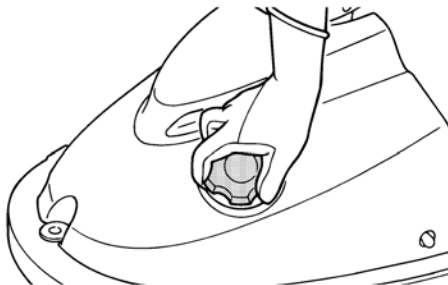
Check the hull and deck for cracks and other damage. If any damage is found, have a Yamaha dealer repair the watercraft.

EJU32360

Fuel system

Check the fuel system for leakage, cracks, and malfunctions before each use. (See page 59 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.

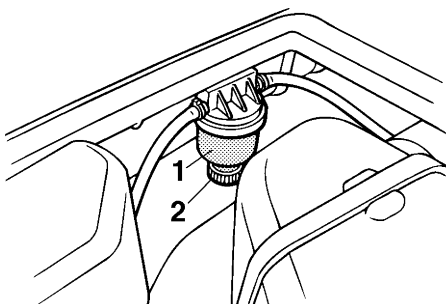


- (2) Remove the hood. (See page 23 for hood removal and installation procedures.)
- (3) Check the fuel level in the fuel tank and replenish if necessary. (See page 32 for filling procedures.)
- (4) Install the fuel tank filler cap and the hood.

EJU32420

Water separator

Check the water separator for water. The water separator retains any water that may have entered through the fuel tank breather hose if the watercraft was capsized. Normally, the water separator is empty.



- 1 Water separator
- 2 Drain screw

If water remains in the water separator, drain it by removing the drain screw. Place a drain pan under the water separator to catch the

Operation

draining water or use a dry cloth to soak up any water that could spill into the watercraft. If any water spills into the watercraft, be sure to wipe it up with a dry cloth. Also, be sure to install the drain screw after draining the water separator.

EJU32430

Bilge

Check the bilge for moisture and fuel residue.

ECJ00340

CAUTION:

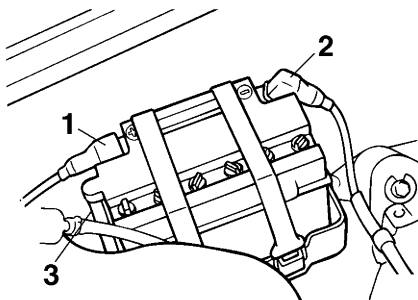
Excessive water in the bilge can splash into the carburetor and engine, which can result in severe damage.

EJU32481

Battery

Check the battery electrolyte level and check that the battery has sufficient power to start the engine easily. Recharge the battery or replace it if it is not in good condition. (See page 66 for battery recharging procedures.)

Also, check that the battery leads are tightened securely and that there is no corrosion on the battery terminals. Check that the breather hose is securely connected to the battery and that it is not pinched.



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

EWJ00450

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.
- Be sure to connect the breather hose to the battery. Fire or explosion could result if the breather hose is damaged, obstructed, or not connected properly.

Make sure that the battery is securely held in place.

EJU32490

Fire extinguisher

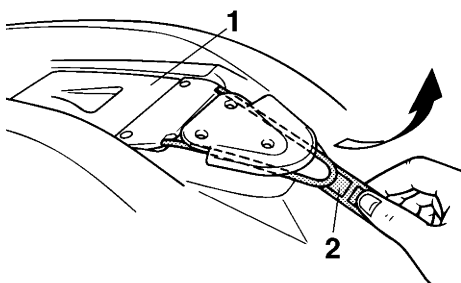
Check that there is a full fire extinguisher on board.



The fire extinguisher container is located on the hood under the steering pole.

To open the fire extinguisher container:

- (1) Grasp the tab, pull the band to the rear, and then pull it up.



- 1 Fire extinguisher holder and cover
- 2 Tab

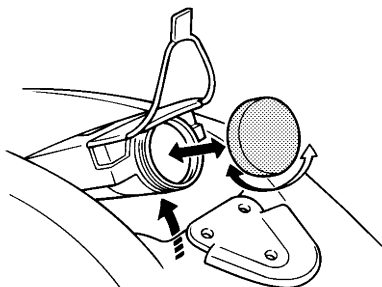
- (2) Lift the container about 30 degrees from the storage position.

ECJ00400

CAUTION:

Do not force the fire extinguisher container up more than 30 degrees from the storage position, otherwise the container and hood could be damaged.

- (3) Remove the cap to access the fire extinguisher.



To close the fire extinguisher container:

- (1) Insert the fire extinguisher into the container, and then install the cap and tighten it securely.

- (2) Lower the container on the hood to its storage position and secure it with the band.

NOTE:

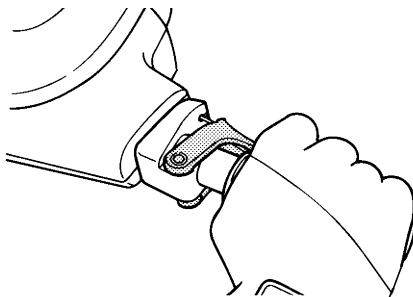
- To check the fire extinguisher, see the instructions supplied by the fire extinguisher manufacturer. Always keep the fire extinguisher in the fire extinguisher container.
- Always carry a fire extinguisher on board. A fire extinguisher is not standard equipment with this watercraft. If you do not have 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

EJU32590

Throttle lever

Check the throttle lever for proper operation. 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.



Operation

EWJ00490

WARNING

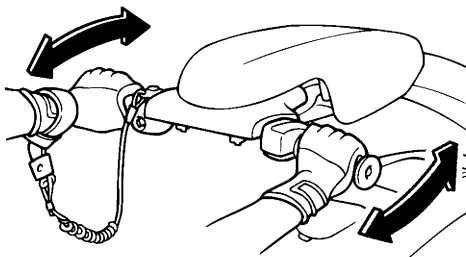
Before starting the engine, always check the operation of the throttle lever.

EJU32600

Steering system

Check the handlebars for looseness.

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

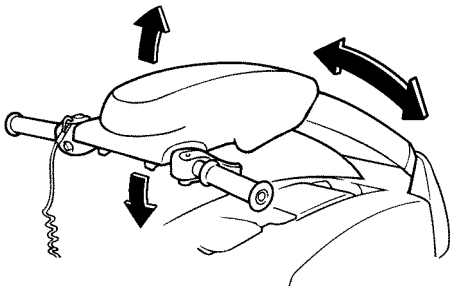


EJU32620

Steering pole

Check the steering pole for looseness.

Move the steering pole up and down to make sure that operation is smooth and unrestricted throughout the whole range. Also, make sure that the steering pole does not have any side play.



EJU32650

Jet intake

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

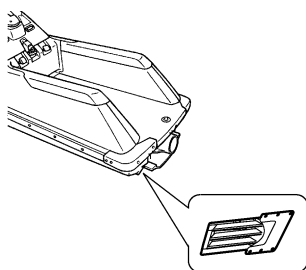
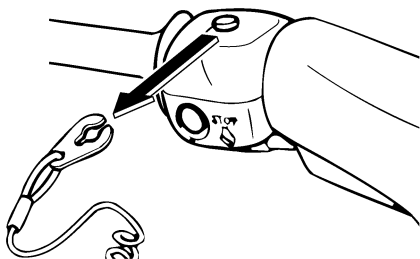
In some cases, the engine may overheat because of lack of cooling water, and damage to the engine could result. Cooling water is fed to the engine by the jet pump. (See page 71 for jet intake cleaning procedures.)

EWJ00470

WARNING

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

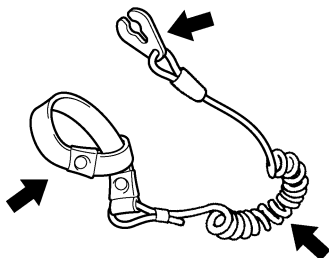
may have collected around the jet intake.



EJU32660

Engine shut-off cord

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.



EJU32670

Switches

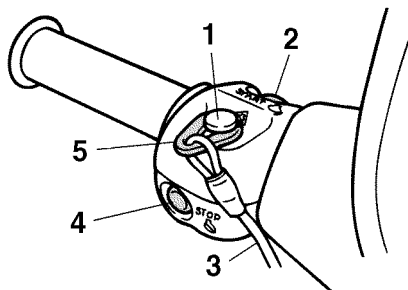
ECJ00410

CAUTION:

Do not run the engine for more than 15 seconds when checking the switches on land without supplying water, otherwise the engine could overheat.

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

Push the start switch to start the engine. As soon as the engine starts running, push the engine stop switch to verify that the engine stops immediately. Restart the engine, and then pull the engine shut-off cord to remove the clip from the engine shut-off switch to verify that the engine stops immediately. (See pages 25 to 26 for information on proper operation of the start switch, the engine stop switch, and the engine shut-off switch.)



- 1 Engine shut-off switch
- 2 Start switch
- 3 Engine shut-off cord
- 4 Engine stop switch
- 5 Clip

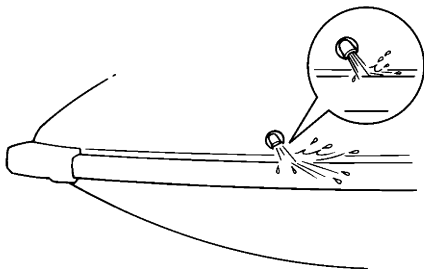
EJU32680

Cooling water pilot outlet

Check that water comes out from the cooling water pilot outlet while the engine is running

Operation

and the watercraft is in the water. (See page 26 for more information.)



EJU32730

Operation

EWJ00510

WARNING

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

EJU32751

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.

ECJ00421

CAUTION:

- **For the first 2 tankfuls of fuel, premix the fuel in a fuel-to-oil ratio of 25:1.**
 - **After break-in, premix the fuel in a fuel-to-oil ratio of 50:1 for normal operation.**
-

- (1) Launch the watercraft, start the engine, and then board the watercraft. (See page 40 for engine starting procedures.)
- (2) Run the engine at the lowest possible speed for 5 minutes.
- (3) Gradually apply throttle to 3/4 or less.
- (4) Operate the watercraft at 3/4 throttle or less for the first tankful of fuel.
- (5) Fill the fuel tank once more with fuel in a fuel-to-oil ratio of 25:1, and then proceed with normal operation.

ECJ00430

CAUTION:

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

EJU32820

Launching the watercraft

When launching the watercraft, make sure that there are no obstacles around you.

After the watercraft is in the water, turn it around so that the bow faces the direction you wish to go. Start the engine, and then slowly move away from the launching area. If there are waves, someone should make sure that the watercraft is not pushed into the trailer after launching the watercraft.

EJU32831

Starting the engine

EWJ00560

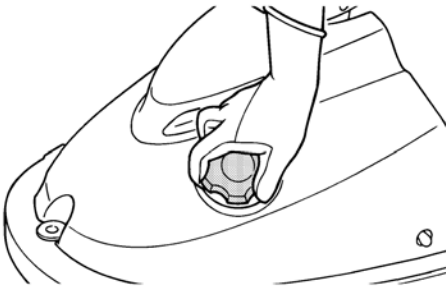


WARNING

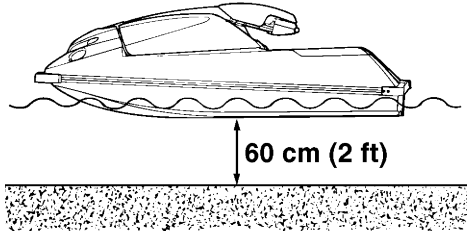
Never start the engine or let it run for any length of time in an enclosed area. Exhaust fumes contain carbon monoxide, a colorless, odorless gas that may cause loss of consciousness and death within a short time. Always operate the watercraft in an open area.

NOTE:

If the watercraft has been sitting for a while, remove the fuel tank filler cap to release any built-up pressure in the fuel tank due to fuel expansion, and then install the filler cap before starting the engine.



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



EWJ00570



WARNING

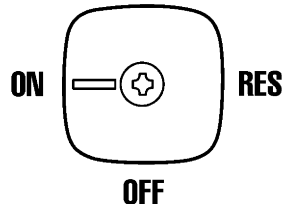
Never operate in water that is less than 60 cm (2 ft) deep, otherwise you increase your chance of hitting a submerged object, which could result in injury.

ECJ00470

CAUTION:

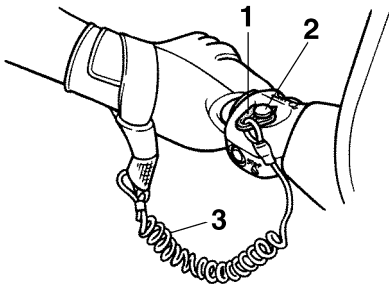
Never operate in water that is less than 60 cm (2 ft) deep, otherwise pebbles or sand could be sucked into the jet intake, causing impeller damage and engine overheating.

- (2) Turn the fuel cock knob to "ON".



Operation

- (3) Attach the engine shut-off cord to your left wrist, and then attach the clip to the engine shut-off switch.



- 1 Clip
- 2 Engine shut-off switch
- 3 Engine shut-off cord

EWJ00580

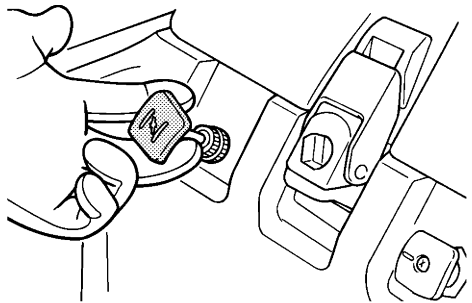
WARNING

Check that the engine shut-off cord is not frayed or broken, and keep it free from the handlebars so that 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.

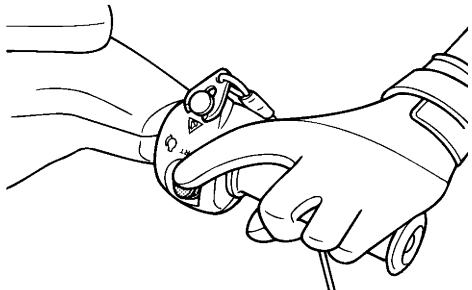
- (4) Pull the choke knob all the way out to start a cold engine.



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), and then release the switch as soon as the engine starts to run.



EWJ00590

WARNING

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

ECJ00480

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

- (6) After the engine has warmed up, push the choke knob in to its original position.

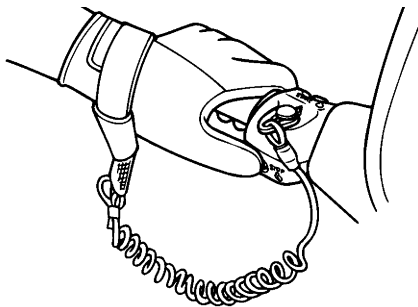
NOTE:

If the choke knob is left pulled out, the engine will stall.

EJU32860

Stopping the engine

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



EWJ00600

WARNING

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

EJU32870

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.

EJU32900

Operating your watercraft

EJU32910

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 page 8. 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 only. Never have more than one person on the watercraft at any time.

EJU32970

Learning to operate your watercraft

Before operating the watercraft, always perform the pre-operation checks listed on page 33. 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

Operation

learn in, where there is good visibility and light boat traffic.



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

Attach the engine shut-off cord to your left wrist and keep it free from the handlebars so that the engine stops if you, the operator, fall off.

Wear a personal flotation device (PFD). The operator must wear a U.S. 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 a result of falling into the water or being near the jet thrust nozzle. Normal swimwear does not adequately protect against forceful water entry into the rectum or vagina. The operator 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 get to a standing or kneeling position quickly. Keep both feet or knees on the riding tray when the watercraft is in motion.

EWJ00500

WARNING

- **Do not apply throttle when anyone is at the rear of the watercraft—turn the engine off or keep it at idle. Water and/or debris exiting the jet thrust nozzle can cause severe injury.**
- **Avoid the forceful jet thrust and make sure that your visibility is not limited while reboarding. Get to a standing or kneeling position quickly, but do not expose yourself to the forceful jet thrust.**

EJU33170

Operating positions

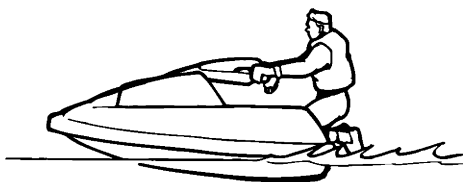
After you are underway, you may choose to kneel or stand, depending upon watercraft speed, your skill level, and your preference. Here are some guidelines.

EJU33180

Kneeling

It is easier to maintain your balance when kneeling than when standing. This position is recommended when traveling at sub-planing speeds. (At sub-planing speeds, there is a

wake, but the watercraft is moving through the water rather than skimming on top of it.)



NOTE:

At very slow speeds, it may be necessary to support your upper-body weight with your elbows resting on the gunwales, trailing your legs in the water.

EJU33190

Standing

After you are comfortable handling the watercraft from a kneeling position, try standing as the watercraft gains speed. The watercraft will become easier to balance as the speed increases, because jet thrust provides stability as well as directional control. When you are moving slowly, or preparing to stop, you will probably need to return to the kneeling position to maintain your balance.



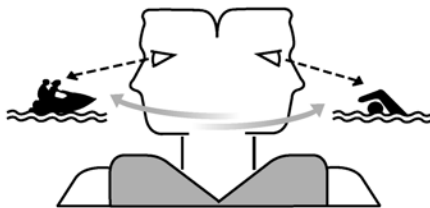
EJU33070

Starting the watercraft

EWJ00700

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 lever when trying to steer away from objects—you need throttle to steer.
- Practice deep-water starting near shore before riding in deep water.



The watercraft is less stable when at a standstill or at a slow speed. It takes skill to keep the watercraft upright when starting.

Even though it is easier to start in shallow water, you must learn deep-water boarding first.

Operation

You will inevitably fall off, so be sure you know how to get back on the watercraft once you are away from shore.

EJU33101

Boarding and starting in shallow water

Be sure to learn the deep-water starting method before operating the watercraft in water where it is too deep for you to stand. (See page 45 for the deep-water starting method.)

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

EWJ00570

WARNING

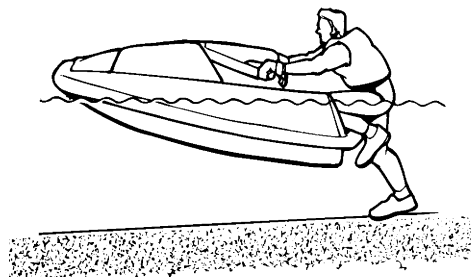
Never operate in water that is less than 60 cm (2 ft) deep, otherwise you increase your chance of hitting a submerged object, which could result in injury.

ECJ00470

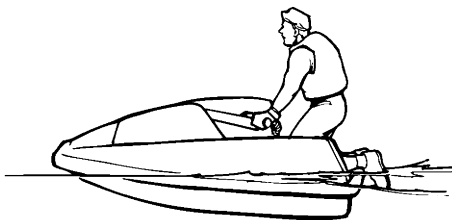
CAUTION:

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 and engine overheating.

- (2) Attach the engine shut-off cord to your left wrist, and then attach the clip to the engine shut-off switch.
- (3) Grip the handlebars with both hands. Place one knee on the riding tray and balance there.



- (4) Start the engine and begin to accelerate.
- (5) Pull your other knee up onto the riding tray as the watercraft speed increases.



- (6) Move as far forward as possible without interfering with the movement of the handlebars. Keep your body perpendicular to the water, with your weight forward and low.

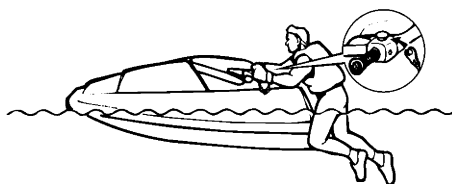
NOTE:

The watercraft will become easier to balance as the speed increases, because jet thrust provides stability as well as directional control.

EJU33120

Boarding and starting in deep water

- (1) Swim to the rear of the watercraft. Attach the engine shut-off cord to your left wrist, and then attach the clip to the engine shut-off switch.

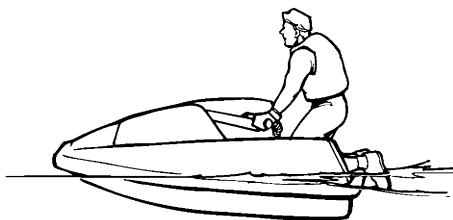


- (2) Grip the handlebars with both hands. Pull your body up onto the riding tray and bal-

ance there, using your elbows on the gunwales for leverage.



- (3) Start the engine and begin to accelerate.
- (4) Continue to pull your body up onto the watercraft as the watercraft speed increases.
- (5) Bring your knees up onto the riding tray and change to a kneeling position as soon as you can do so.



EWJ00630

WARNING

Avoid forceful jet thrust and limited visibility while reboarding. Get to a standing or kneeling position quickly, but do not expose yourself to the forceful jet thrust.

- (6) Move as far forward as possible without interfering with the movement of the handlebars. Keep your body perpendicular to the water, with your weight forward and low.

- (7) Once the bow drops, and the watercraft has leveled out in the water and reached planing speed, back off the throttle and select your desired speed.

NOTE:

- The watercraft will become easier to balance as the speed increases, because jet thrust provides stability as well as directional control.
- It will take longer for a heavier operator to reach planing speed than it will for a light operator.

EJU33200

Capsized watercraft

If the watercraft capsizes, turn it over immediately.

Be sure to carefully follow the procedures below to prevent injury, or damage to the watercraft.

EWJ00670

WARNING

IMPROPER UPRIGHTING CAN CAUSE INJURY:

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

EGJ00510

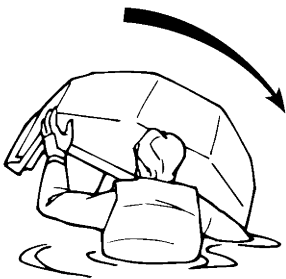
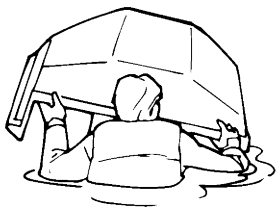
CAUTION:

Be sure to remove the clip from the engine shut-off switch to shut the engine off, otherwise the engine can overheat, which can result in severe damage.

- (1) Remove the clip from the engine shut-off switch.

Operation

- (2) Swim to the rear of the watercraft and upright it by turning it clockwise only.



NOTE: _____
If the port (left) side of the capsized watercraft is tilting up, push down on the gunwale so that the port (left) side is down before turning the watercraft clockwise.

ECJ00520

CAUTION: _____
Do not turn the watercraft over counter-clockwise, otherwise water can enter the carburetor and engine, which can result in severe damage.

- (3) Start the engine and operate the watercraft to discharge any water remaining in the engine compartment. (If the engine does not start, see “Towing the watercraft” on page 73 or “Submerged watercraft” on page 74.)

NOTE: _____

- To efficiently discharge water from the engine compartment, operate the watercraft as straight as possible and above planing speed for at least 2 minutes.
- To stabilize the watercraft when accelerating to planing speed, maintain a low center of gravity by operating it in the kneeling position.

EJU33240

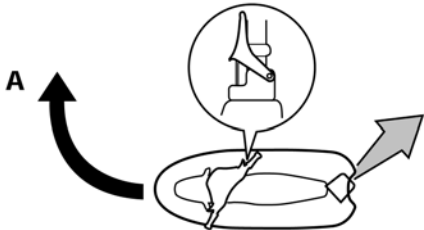
Turning the watercraft

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

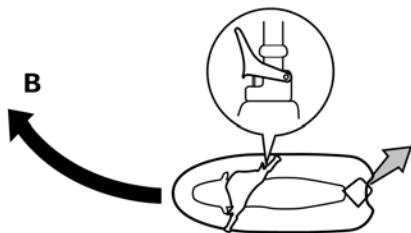
Water sucked in through the intake grate is pressurized by the impeller in the jet pump. As the pressurized water is expelled from the pump through the jet thrust nozzle, it creates thrust to move and steer the watercraft. The higher the engine speed, the more thrust produced.

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

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

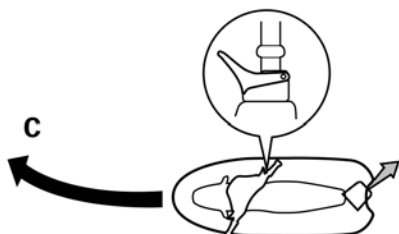


- B. Less throttle produces lower thrust, so the watercraft will turn more gradually.

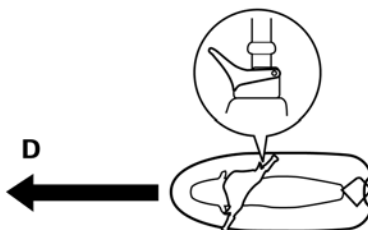


- C. Releasing the throttle lever completely produces only minimum thrust. If you are traveling at speeds above trolling, you will have rapidly decreasing ability to steer without throttle. You may still have some turning ability immediately after releasing the throttle lever, but once the engine slows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

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

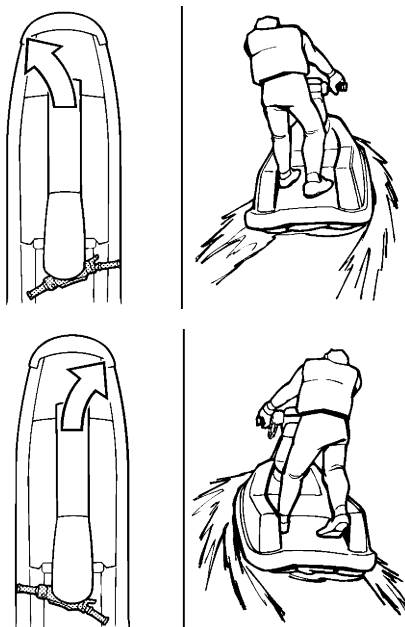


- D. If the engine is stopped while riding, there is no thrust. The watercraft will go straight even though the handlebars are turned.



You need throttle to steer.

To maintain your balance, lean into a turn. How much you lean depends on the sharpness of the turn and your traveling speed. In general, the higher the speed or the sharper the turn, the more you lean.



Operation

EWJ00760

WARNING

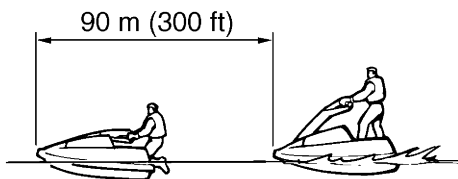
Do not release the throttle lever when trying to steer away from objects—you need throttle to steer. A collision could result in severe injury or death.

EJU33270

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 90 m (300 ft) after the throttle lever is released or the engine is stopped, although this distance will vary depending on many factors, including gross weight, water surface conditions, and wind direction.

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.



EWJ00720

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.

EJU33300

Beaching the watercraft

- (1) Make sure that there are no boats, swimmers, or obstacles near the beach. Release the throttle lever about 90 m (300 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.

EGJ00490

CAUTION:

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

EJU33330

Rough water operation

The force of landing after jumping can cause a strong impact on both the watercraft and the operator. It is possible for the operator to hit his or her chest or jaw on the watercraft 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 hull and damage internal parts. Avoid operating in rough water or bad weather conditions.

EJU33361

Post-operation care

To keep your watercraft in top shape, always take it out of the water after using it and perform the following procedures. Leaving the watercraft in the water for extended periods will accelerate the rate of normal deterioration of the jet unit components and hull finish. Marine organisms and corrosion are some of the conditions that can adversely affect the life of many watercraft components.

- (1) Remove the watercraft from the water.
- (2) Wash down the hull, steering pole, handlebars, and jet unit with fresh water.
- (3) Remove the hood and check the engine compartment for water. To drain excess water, turn the watercraft on its port (left) side. If necessary, turn the watercraft upside down to drain the water completely.

ECJ00580

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 onto its side or inverting it, support the bow and secure the steering pole, otherwise the steering pole and handlebars could be bent or damaged.

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) Place the watercraft in a horizontal position.

- (5) Flush the cooling system to prevent it from clogging with salt, sand, or dirt. (See page 52 for flushing procedures.)
- (6) Drain residual water from the exhaust system by alternately squeezing and releasing the throttle lever for 10 to 15 seconds while the engine is running.

ECJ00561

CAUTION:

Do not run the engine for more than 15 seconds without supplying water, otherwise the engine could overheat.

- (7) If the watercraft will be stored for a week or more, lubricate internal engine components to help prevent corrosion. (See page 53 for lubrication procedures.)
- (8) Rinse the engine and engine compartment with a small amount of water.

ECJ00570

CAUTION:

Do not use high-pressure water 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, steering pole, handlebars, and jet unit dry with a clean cloth.
- (11) Spray a rust inhibitor on metallic parts to minimize corrosion.
- (12) Allow the engine compartment to air dry completely before installing the hood.

Operation

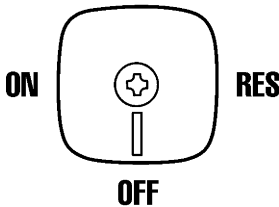
EJU33420

Transporting

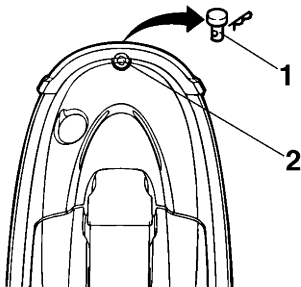
EWJ00750

WARNING

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



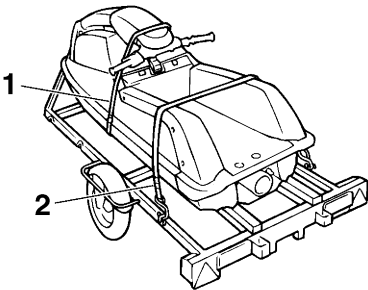
Transport this watercraft using a special trailer that incorporates a hole into which the pin can be inserted and locked after passing it through the bow rope hole.



- 1 Pin
- 2 Bow rope hole

After securing the bow with the pin, secure the stern with ropes or tie downs routed over the

gunwale. Use a rubber shock cord to secure the steering pole.



- 1 Rubber shock cord
- 2 Tie down

ECJ00630

CAUTION:

- Do not route ropes or tie downs over the steering pole, as they could damage it. Also, wrap the ropes or tie downs with towels or rags where they touch the body of the watercraft to avoid scratching or damage.
- Do not transport the watercraft with the steering pole up, otherwise the steering pole could be damaged.

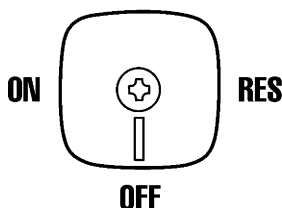
EJU33480

Storage

EWJ00320

WARNING

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



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

EJU33502

Flushing the cooling system

Flushing the cooling system is essential to prevent it from clogging with salt, sand, or dirt. Use the Yamaha Watercraft Flush Kit to make flushing easier.

See the instructions included with the flush kit for proper installation.

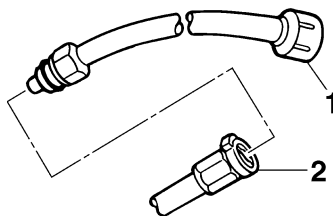
ECJ00920

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 on land without supplying wa-**

ter, otherwise the engine could over-heat.

- (1) Place the watercraft in a horizontal position.
- (2) Insert the garden hose adapter into the flushing hose connector.



- 1 Garden hose adapter
- 2 Flushing hose connector

- (3) Connect the garden hose adapter to a water tap using a garden hose.

NOTE:

A garden hose is not included and must be purchased separately.

- (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 of the cooling water passages by alternately squeezing and releasing the throttle lever for 10 to 15 seconds.
- (7) Stop the engine.
- (8) Remove the garden hose adapter.

Maintenance and care

EJU33551

Lubrication

EWJ00300

WARNING

To reduce the risk of fire or explosion:

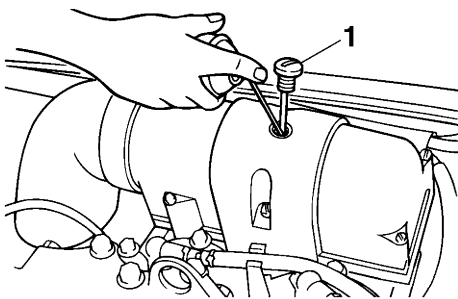
Never pour or spray gasoline, or any substance other than a rust inhibitor through the hole in the carburetor silencer cover.

ECJ00151

CAUTION:

- Be sure to install the silencer cap securely after fogging the engine, otherwise water could enter the engine and cause damage.
- Do not run the engine for more than 15 seconds without supplying water, otherwise the engine could overheat.

- (1) Remove the silencer cap.



1 Silencer cap

- (2) Start the engine with the watercraft in a well-ventilated area.
- (3) With the engine running at a fast idle, quickly spray as much rust inhibitor as possible through the hole in the silencer cover. Use Yamaha Stor-Rite Engine Fogging Oil or an equivalent. Keep spraying until the engine stalls (or a maximum of 15 seconds).
- (4) Install the silencer cap securely.
- (5) 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.

- (6) Lubricate the areas of the watercraft specified in "Lubrication points" on page 64.

EJU33630

Fuel system

EWJ00290

WARNING

GASOLINE AND ITS VAPORS ARE HIGHLY FLAMMABLE AND EXPLOSIVE!

- Do not smoke when refueling, and keep away from sparks, flames, and other sources of ignition.
- Stop the engine before refueling.
- Refuel in a well-ventilated area with the watercraft in a horizontal position.
- 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. If temporarily leaving the watercraft with a full fuel tank, do not leave it in direct sunlight. Leave it in a well-ventilated area with the watercraft in a horizontal position.
- Tighten the fuel tank filler cap securely after refueling.
- If you should swallow some gasoline, inhale a lot of gasoline vapor, or get gaso-

Maintenance and care

line in your eyes, get immediate medical attention.

- **If any gasoline spills on your skin or clothing, immediately wash the affected area with soap and water and change your clothes.**

Top off the fuel tank with fresh gasoline and add one ounce of Yamaha Fuel Stabilizer and Conditioner per each gallon of fuel.

NOTE:

Use of Yamaha Fuel Stabilizer and Conditioner eliminates the need to drain the fuel system. If the fuel system is to be drained instead, consult a Yamaha dealer.

EJU33680

Battery

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

- (1) Disconnect the negative (–) battery lead first, then the positive (+) battery lead and breather hose, and then remove the battery from the watercraft.
- (2) Clean the battery casing using fresh water.
- (3) If the battery terminals are dirty or corroded, clean them with a wire brush.
- (4) Fully charge the battery.
- (5) Apply Yamaha Marine Grease or Yamaha Grease A to the battery terminals, and then store the battery in a cool, dry place.
- (6) Check the battery at least once every 2 months and fully charge it if necessary.

ECJ00100

CAUTION:

Always keep the battery charged. Storing a discharged battery can cause permanent battery damage.

To check the condition of the battery, check the specific gravity of the electrolyte or measure the voltage at both battery terminals. Charge the battery if the voltage is less than 12 volts.

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

It is recommended to have a Yamaha dealer check the specific gravity and charge the battery. If you maintain the battery yourself, be sure to read and follow the instructions provided with the battery tester and charger you use.

EJU33690

Cleaning the watercraft

Clean the watercraft before storing it for a long period.

- (1) Wash down the hull, handlebars, and jet unit with fresh water.
- (2) Rinse the engine and bilge area with fresh water. Drain all of the water and wipe up any remaining moisture with clean, dry rags.

ECJ00110

CAUTION:

Do not use high-pressure water when rinsing the engine and bilge area as severe engine damage could result.

- (3) Spray the engine's exterior with a rust inhibitor and lubricant such as 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 engine compartment seals, with a vinyl protectant such as Yamaha Protectant.

Maintenance and care

NOTE: _____

Do not use vinyl protectant on the riding tray, because it will make it slippery.

EJU33751

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. Proper maintenance must be carried out to keep the exhaust emission and sound levels within the regulated limits. The most important points of watercraft inspection, adjustment, and lubrication are explained on the following pages.

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

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

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

EWJ00310

WARNING

- Be sure to shut the engine off 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 and exhaust emissions, or render it unsafe for

Maintenance and care

use. Consult a Yamaha dealer before attempting any modifications.

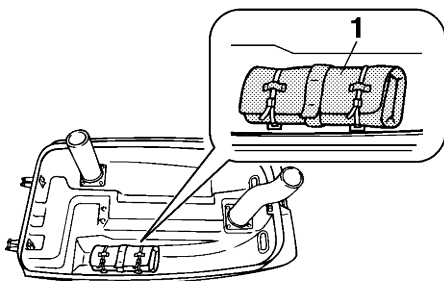
NOTE:

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.

EJU33770

Owner's/operator's manual and tool kit

It is advisable to always carry the owner's/operator's manual and tool kit with you whenever you use the watercraft. For your convenience, a storage pouch is provided on the watercraft for the manual and tool kit.



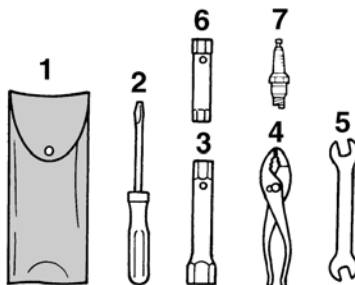
1 Storage pouch

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, the owner, with the necessary information for completing your own preventive maintenance and minor repairs. The tools provided in the tool kit are suf-

ficient for this purpose, except that a torque wrench may also be necessary to tighten nuts and bolts.



- 1 Tool bag
- 2 Screwdriver
- 3 14/21 mm box wrench
- 4 Pliers
- 5 Open-end wrench
- 6 10/12 mm box wrench
- 7 Spark plug (one included for each cylinder)

Maintenance and care

EJU33821

Periodic maintenance chart

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

This “●” mark indicates maintenance that you may do yourself.

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

Item	Operation	Initial			Thereafter every		Page
		10 hours	50 hours	100 hours	100 hours	200 hours	
			6 months	12 months	12 months	24 months	
Spark plugs	Check, clean, adjust	●	●	●	●		63
Lubrication points	Lubricate			●/○	●/○		64
Intermediate housing	Lubricate	○		●	●		64
Fuel system	Check			○	○		59
Fuel filter	Check, clean, replace	●/○				●/○	59
Fuel tank	Check, clean					●/○	59
Carburetor	Check, adjust	○		○	○		67
Trolling speed	Check, adjust			●	●		67
Carburetor throttle shaft	Check			○	○		—
Cooling water passages	Flush	●*					52
Bilge strainer	Clean			○	○		—
Impeller	Check			○	○		—
Jet thrust nozzle angle	Check, adjust			●/○	●/○		59
Handlebar pivot shaft	Check	○		○	○		—
Steering friction	Check, adjust	●		●	●		60
Throttle cable	Check, adjust	○		●	●		62
Choke cable	Check, adjust			●	●		65
Battery	Check, charge			●/○	●/○		66
Rubber coupling	Check					○	—
Engine mount	Check					○	—

Maintenance and care

Item	Operation	Initial			Thereafter every		Page
		10 hours	50 hours	100 hours	100 hours	200 hours	
			6 months	12 months	12 months	24 months	
Nuts and bolts	Check	○		○	○		—

* This operation should be performed after every use.

Maintenance and care

EJU34201

Checking the fuel system

EWJ00370

WARNING

Gasoline is highly flammable and explosive. Failure to check for and repair any fuel leakage could result in a fire or explosion. A fire or explosion can cause severe injury or death. Shut the engine off. Do not smoke. Avoid spilling gasoline.

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

Check:

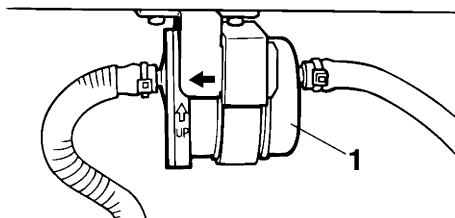
- Carburetor for leakage.
- Fuel tank filler cap and seal for damage.
- Fuel in fuel tank for water and dirt.
- Fuel tank for damage, cracks, and leakage.
- Fuel hoses and joints for damage, cracks, and leakage.
- Fuel filter for leakage.
- Fuel cock for leakage.
- Air vent check valve for leakage.

EJU34220

Fuel filter

This watercraft is equipped with a one-piece, disposable fuel filter. The fuel filter should be replaced after the initial 10 hours or first month of operation and every 200 hours or 24 months thereafter, or if water is found in the fil-

ter. Have a Yamaha dealer replace the fuel filter if necessary.



1 Fuel filter

EWJ00360

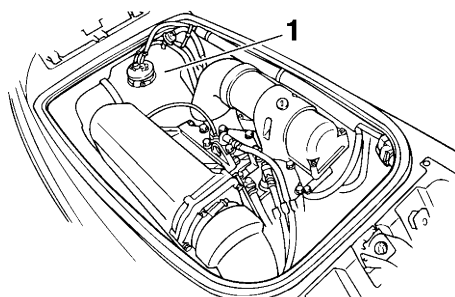
WARNING

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

EJU34230

Fuel tank

Check the fuel tank for leakage and for 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.



1 Fuel tank

EJU34321

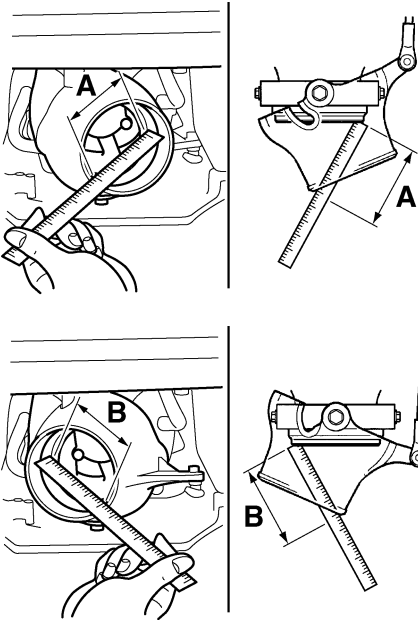
Checking the jet thrust nozzle angle

Check the handlebars and jet thrust nozzle for smooth operation.

Maintenance and care

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

Difference of A and B:
Maximum 5 mm (0.20 in)



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

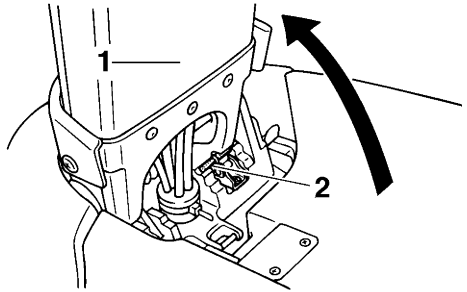
EJU34331

Adjusting the steering friction

The amount of friction in the steering can be adjusted to suit operator preference.

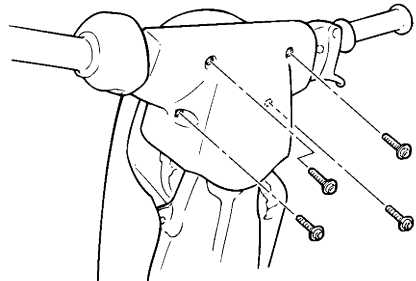
To adjust the steering friction:

- (1) Lift the steering pole and support it with the lock pin.

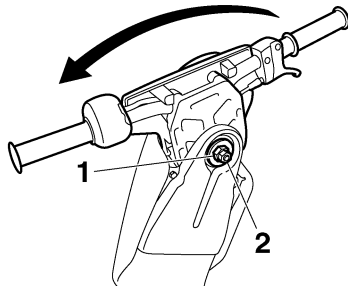


- 1 Steering pole
- 2 Lock pin

- (2) Remove the four screws, and then remove the handlebar cover.



- (3) Turn the handlebars so that the left handlebar grip is facing down.



- 1 Adjusting nut
- 2 Locknut

Maintenance and care

- (4) Loosen the locknut.
- (5) Tighten or loosen the adjusting nut until the desired amount of friction is obtained.
- (6) Hold the adjusting nut with one wrench while tightening the locknut with another wrench.

Tightening torque:
29.0 Nm (21.4 ft-lb) (2.96 kgf-m)

- (7) Install the handlebar cover and the four screws.

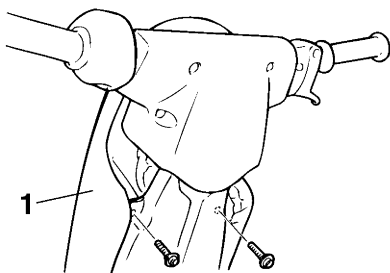
EJU31282

Adjusting the jet thrust nozzle angle

The angle of the jet thrust nozzle can be adjusted to suit operator preference according to the following procedure.

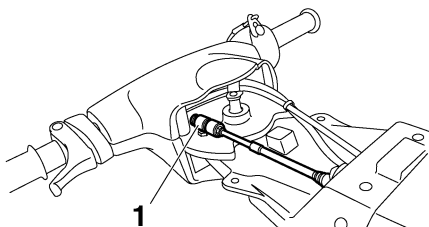
To change the steering cable pivot bolt position:

- (1) Remove the two screws, and then remove the steering pole cover.



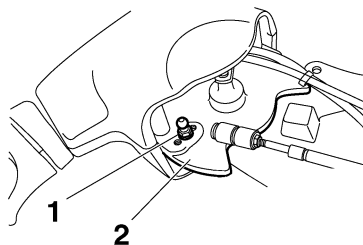
1 Steering pole cover

- (2) Pull back the outer sleeve of the steering cable joint, and then disconnect the joint from the steering cable pivot bolt.



1 Steering cable joint

- (3) Remove the steering cable pivot bolt.



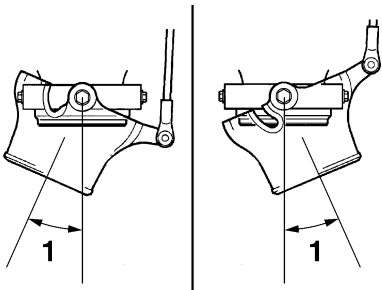
1 Steering cable pivot bolt

2 Steering column

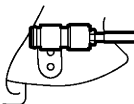
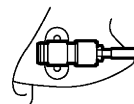
- (4) Select the nozzle angle, install the steering cable pivot bolt with the lock washer in the desired position (P1 or P2) on the

Maintenance and care

steering column, and then tighten it to the specified torque.



1 Nozzle angles

1	2
14.4°	 P1
17.3°	 P2

1 Nozzle angles

2 Steering cable pivot bolt positions

Standard steering cable pivot bolt position:
P2

NOTE:
Do not install the steering cable pivot bolt in the outermost hole in the steering column.

Tightening torque:
Steering cable pivot bolt:
5.4 Nm (4.0 ft-lb) (0.55 kgf-m)

(5) Connect the steering cable joint to the steering cable pivot bolt.

(6) Install the steering pole cover, and then install the two screws.

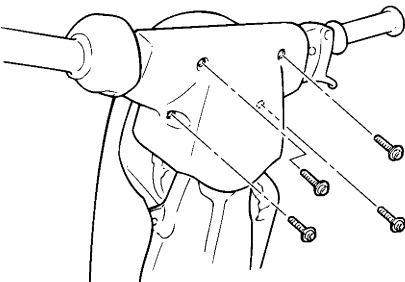
EJU34361

Checking and adjusting the throttle cable

Check that the throttle cable moves back to the set position smoothly and that the throttle lever free play is within specification. Squeeze and release the throttle lever. If the throttle lever does not return smoothly, have a Yamaha dealer service it.

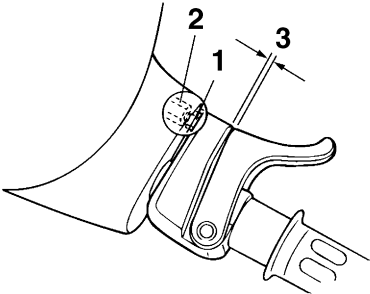
If the specified throttle lever free play cannot be obtained as described below, have a Yamaha dealer make the adjustment.

(1) Remove the four screws, and then remove the handlebar cover.



(2) Loosen the locknut.

(3) Adjust the free play by turning the adjuster.



1 Locknut

2 Adjuster

3 Throttle lever free play

Maintenance and care

Throttle lever free play:
7.0–10.0 mm (0.28–0.39 in)

- (4) Hold the adjuster with one wrench while tightening the locknut with another wrench.
- (5) Install the handlebar cover and the four screws.

EJU34371

Cleaning and adjusting the spark plugs

EWJ00350



WARNING

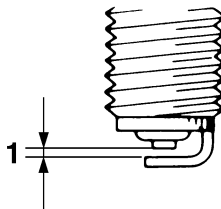
Be careful not to damage the insulator when removing or installing a spark plug. A damaged insulator could allow sparks to escape, which could result in a fire or explosion.

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 plugs periodically; heat and deposits will cause the spark plugs 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.

Specified spark plug:
B7HS

Measure the spark plug gap with a wire thickness gauge. Replace the spark plugs or adjust the gap to specification if necessary.



1 Spark plug gap

Spark plug gap:
0.6–0.7 mm (0.024–0.028 in)

To install a spark plug:

- (1) Clean the gasket surface.
- (2) Wipe any dirt from the threads of the spark plug.
- (3) Install the spark plug, and then tighten it to the specified torque.

Spark plug tightening torque:
25.0 Nm (18.4 ft-lb) (2.55 kgf-m)

- (4) Install the spark plug cap.

NOTE:

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

Maintenance and care

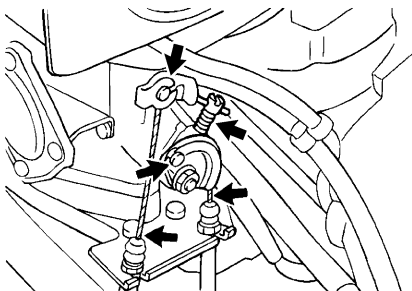
EJU34400

Lubrication points

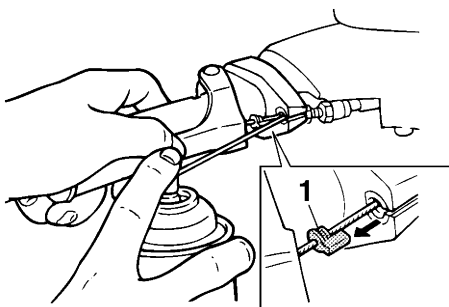
To keep moving parts sliding or rotating smoothly, coat them with water-resistant grease.

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

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



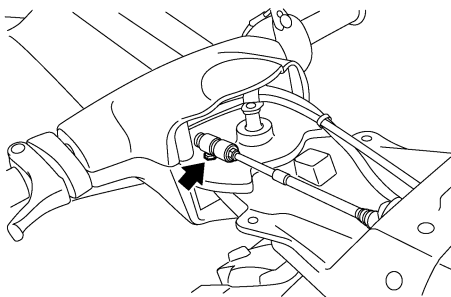
- Throttle cable (handlebar end)
Squeeze the throttle lever and remove the seal. Spray a rust inhibitor into the outer cable. Refit the seal securely.



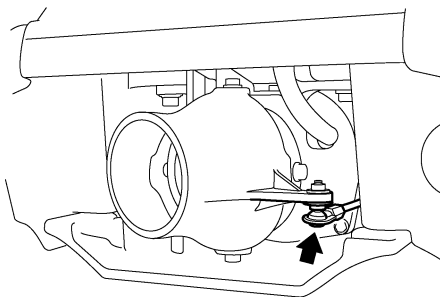
1 Seal

- Steering cable ball joint (handlebar end)
- Steering cable inner wire (handlebar end)
(1) To access the steering cable and ball joint, remove the steering pad by removing the two bolts.

- (2) Grease the steering cable ball joints, both at the handlebar end of the cable and at the jet thrust nozzle end.
- (3) Extend the steering cable inner wire, and then apply a thin coat of grease to the inner wire, both at the handlebar end of the cable and at the jet thrust nozzle end.



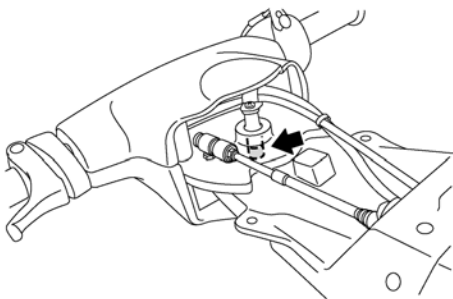
- Steering cable ball joint (jet thrust nozzle end)
- Steering cable inner wire (jet thrust nozzle end)



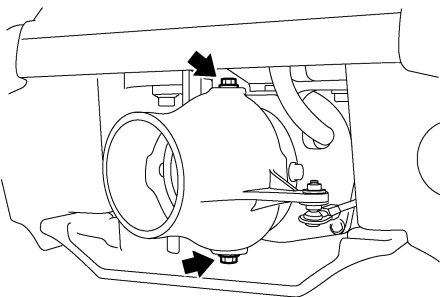
- Handlebar pivot shaft
Lubrication of the handlebar pivot shaft requires disassembly of steering compo-

Maintenance and care

nents. Have a Yamaha dealer lubricate the handlebar pivot shaft.



- Jet thrust nozzle pivot bolts (collars)



- Intermediate housing

Fill the intermediate housing with water-resistant grease through the grease nipple using a grease gun.

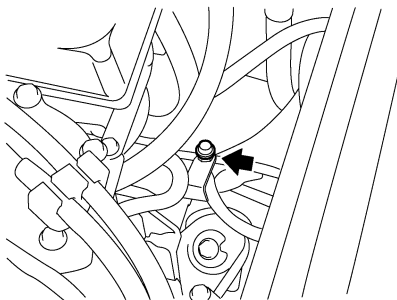
Grease quantity:

Initial 10 hours or 1 month:

20.0–22.0 cm³ (0.68–0.74 US oz)
(0.71–0.78 Imp.oz)

Every 100 hours or 12 months:

3.0–5.0 cm³ (0.10–0.17 US oz)
(0.11–0.18 Imp.oz)

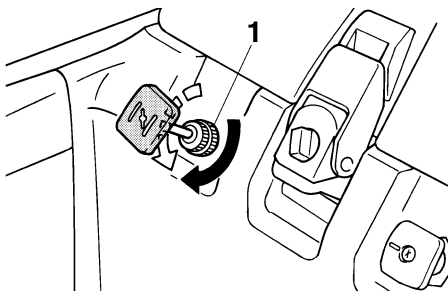


EJU34440

Adjusting the choke cable

Check that the choke cable is properly adjusted.

- (1) Pull the choke knob out until it stops, and then release the knob. The knob should not move.
- (2) If the choke knob moves back on its own, tighten the choke knob adjusting nut slightly. If the knob is difficult to move, loosen the adjusting nut slightly.



1 Choke knob adjusting nut

Maintenance and care

EJU34451

Checking the battery

Check the level of the battery electrolyte and make sure that the negative (–) and positive (+) battery leads are tightened securely.

EWJ00790

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 a physician immediately.

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

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

KEEP OUT OF THE REACH OF CHILDREN.

ECJ00230

CAUTION:

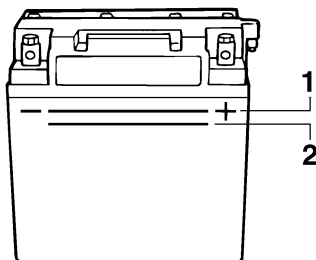
- **Be careful not to place the battery on its side.**
- **Be sure to remove the battery from the battery compartment when adding electrolyte or charging the battery.**

To remove the battery:

Disconnect the negative (–) battery lead first, then the positive (+) battery lead and breather hose, and then remove the battery from the watercraft.

To replenish the battery:

- (1) Make sure that the electrolyte level is between the maximum and minimum level marks.



1 Maximum level mark

2 Minimum level mark

- (2) If the electrolyte level is low, add distilled water to raise it to the specified level.

ECJ00240

CAUTION:

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

To recharge the battery:

ECJ00250

CAUTION:

Do not attempt to charge a battery hastily. Battery life could be shortened.

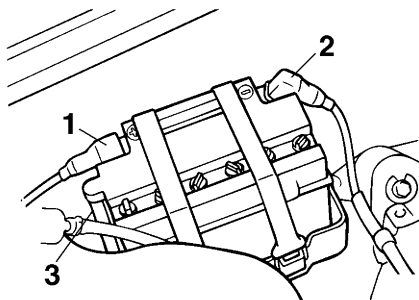
It is recommended to have a Yamaha dealer charge the battery. If you charge the battery yourself, be sure to read and follow the instructions provided with the battery tester and charger you use.

To install the battery:

- (1) Place the battery in the battery compartment and connect the battery leads to the battery terminals.
- (2) Connect the breather hose to the battery.

Maintenance and care

- (3) Secure the battery in place.



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

EWJ00400

WARNING

Be sure to connect the breather hose to the battery. Fire or explosion could result if the breather hose is damaged, obstructed, or not connected properly.

ECJ00260

CAUTION:

After installation, make sure that the battery leads are properly connected to the battery terminals.

EJU34460

Adjusting the carburetor

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

ECJ00170

CAUTION:

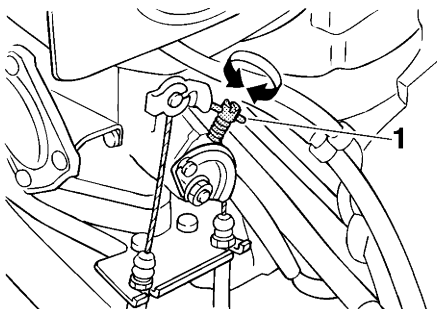
The carburetor was set at the Yamaha factory after many tests. If the settings are disturbed by someone who does not have the necessary technical knowledge, poor

engine performance and damage may result.

EJU34470

Adjusting the trolling speed

- (1) Place the watercraft in the water.
- (2) Start the engine and warm it up for 1 to 2 minutes.
- (3) While using a diagnostic tachometer, turn the throttle stop screw to adjust the engine speed to specification. Turn the throttle stop screw clockwise to increase the engine speed or counterclockwise to decrease the engine speed.



1 Throttle stop screw

Trolling speed:
1300 $\pm$ 50 r/min

EJU34542

Specifications

Watercraft capacity:

Maximum people on board:
1 person

Dimensions:

Length:
2240 mm (88.2 in)

Width:
680 mm (26.8 in)

Height:
660 mm (26.0 in)

Dry weight:
139 kg (306 lb)

Performance:

Maximum fuel consumption:
29.0 L/h (7.7 US gal/h) (6.4 Imp.gal/h)

Cruising range at full throttle:
0.62 hour

Trolling speed:
1300 ±50 r/min

Engine:

Engine type:
2-stroke

Number of cylinders:
2

Engine displacement:
701 cm³

Bore & stroke:
81.0 × 68.0 mm (3.19 × 2.68 in)

Compression ratio:
7.2 : 1

Lubrication system:
Pre-mixed fuel and oil

Cooling system:
Water

Starting system:
Electric

Ignition system:
C.D.I.

Spark plug:
B7HS

Spark plug gap:
0.6–0.7 mm (0.024–0.028 in)

Battery capacity:
12 V, 19.0 Ah

Charging system:
Flywheel magneto

Drive unit:

Propulsion system:
Jet pump
Jet pump type:
Axial flow, single stage
Impeller rotation:
Counterclockwise
Jet thrust nozzle angle:
P1: 14.4+14.4 °
P2: 17.3+17.3 °

Fuel and oil:

Recommended fuel:
Regular unleaded gasoline
Minimum octane rating (PON):
86
Minimum octane rating (RON):
90
Recommended engine oil:
YAMALUBE 2-W or TC-W3 outboard motor
oil or equivalent
Fuel mixing ratio (fuel to oil):
50 :1
Fuel tank total capacity:
18 L (4.8 US gal) (4.0 Imp.gal)
Fuel tank reserve capacity:
5.5 L (1.5 US gal) (1.2 Imp.gal)

Trouble recovery

EJU34560

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.

EJU34570

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	25
	Fuse	Burned out	Replace fuse and check wiring	73
	Battery	Run down	Recharge	66
		Poor terminal connections	Tighten as required	66
		Terminal corroded	Clean	54
	Starter motor	Faulty	Have serviced by Yamaha dealer	—
Engine does not start (Starter motor turns over)	Fuel cock	Turned to “OFF”	Turn fuel cock knob to “ON”	24
	Fuel	Empty	Refill as soon as possible	32
		Stale or contaminated	Have serviced by Yamaha dealer	59
	Fuel tank	Water or dirt present	Have serviced by Yamaha dealer	59
	Spark plug	Fouled or defective	Clean or replace	63
	Spark plug cap	Not connected or loose	Connect properly	63
	Crankcase	Filled with water	Crank engine with plug out until clean	74
	Fuel filter	Clogged or water pooled	Have serviced by Yamaha dealer	59
	Choke	Knob moves back on its own	Tighten choke knob adjusting nut	65

Trouble recovery

TROUBLE	POSSIBLE CAUSE		REMEDY	PAGE
Engine runs irregularly or stalls	Fuel	Empty	Refill as soon as possible	32
		Stale or contaminated	Have serviced by Yamaha dealer	59
		Too much oil in fuel mixing ratio	Correct fuel-to-oil ratio to 50:1	31
	Choke	Knob is left pulled	Push fully in	26
	Fuel filter	Clogged or water pooled	Have serviced by Yamaha dealer	59
	Fuel tank	Water or dirt present	Have serviced by Yamaha dealer	59
	Spark plug	Fouled or defective	Replace	63
		Incorrect heat range	Replace	63
		Gap incorrect	Adjust	63
	Spark plug cap	Loose	Connect properly	63
		Cracked, torn or damaged	Replace	—
	Electrical wiring	Loose electrical connections	Tighten or connect properly	—
	Carburetor	Incorrect idle adjustment	Adjust idle	67
		Clogged	Have serviced by Yamaha dealer	67
Watercraft slow or loses power	Cavitation	Jet intake clogged	Clean	71
		Impeller damaged or worn	Have serviced by Yamaha dealer	71
	Engine overheated	Jet intake clogged	Clean	71
	Fuel filter	Clogged	Have serviced by Yamaha dealer	59
	Spark plug	Fouled or defective	Replace	63
		Incorrect heat range	Replace	63
		Gap incorrect	Adjust	63
	Spark plug caps	Loose	Connect properly	63
	Fuel	Stale or contaminated	Have serviced by Yamaha dealer	59

Trouble recovery

EJU34620

Emergency procedures

EJU34630

Cleaning the jet intake and impeller

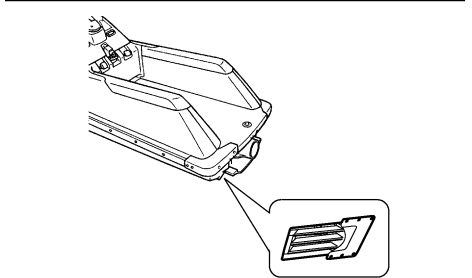
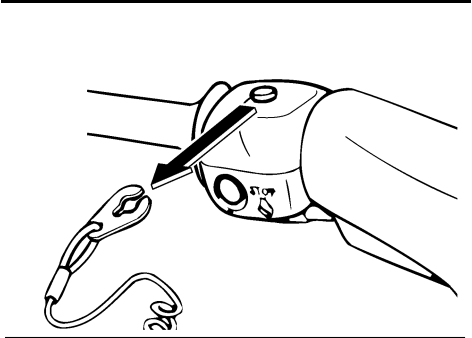
If weeds or debris get caught in the jet intake or impeller, cavitation can occur, causing jet thrust to decrease even though engine speed rises. If this condition is allowed to continue, the engine will overheat and may seize. If there is any sign that the jet intake or impeller is clogged with weeds or debris, return to shore and check the intake and impeller. Always stop the engine before beaching the watercraft.

EWJ00780

WARNING

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

contact with the rotating parts of the jet pump.

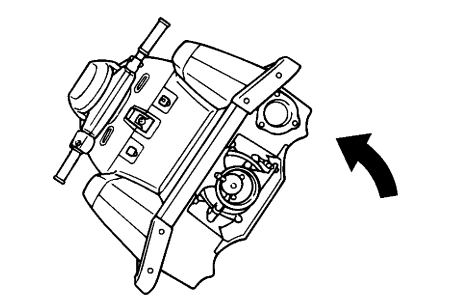


ECJ00650

CAUTION:

If weeds or debris get caught in the jet intake, do not operate the watercraft above trolling speed until they have been removed.

- (1) Turn the watercraft on its side as shown.



Trouble recovery

ECJ00660

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 that the handlebars are not bent or damaged.

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

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

ECJ00670

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 jet intake or impeller area and cause cavitation, follow the cleaning procedure above.

EJU34640

Jumping the battery

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

EWJ00790



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 a physician immediately.

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

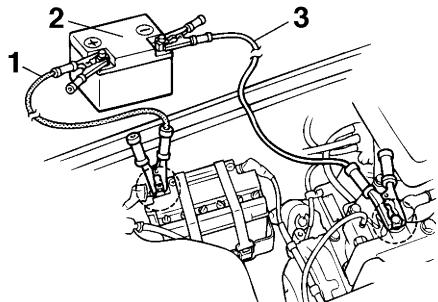
Batteries produce explosive gases. Keep sparks, flames, cigarettes, etc., well away. If using or charging the battery in an enclosed space, make sure that it is well ventilated. Always shield your eyes when working near batteries.

KEEP OUT OF THE REACH OF CHILDREN.

EJU34651

Connecting the jumper cables

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



- 1 Positive (+) jumper cable
- 2 Booster battery
- 3 Negative (-) jumper cable

ECJ00680

CAUTION:

Do not connect the end of the negative (-) jumper cable to the negative (-) battery terminal of the watercraft battery! Make sure that all connections are secure and correct before attempting to start the en-

Trouble recovery

gine. Any wrong connection could damage the electrical system.

- (4) Start the engine, and then disconnect the jumper cables by reversing the steps above.

ECJ00480

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

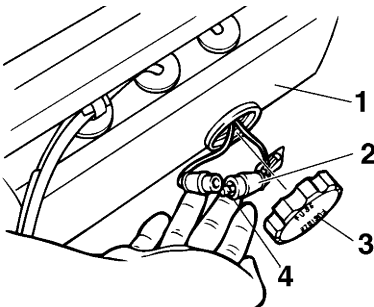
EJU34670

Replacing the fuse

The fuse is located in the electrical box.

To replace the fuse:

- (1) Remove the cap, and then pull out the red lead to pull out the fuse holder from the electrical box.
- (2) Open the fuse holder and replace the fuse with one of the correct amperage.



- 1 Electrical box
- 2 Fuse holder
- 3 Cap
- 4 Fuse

Fuse amperage:
10 A

EWJ00800

WARNING

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

EJU34701

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 towline, the operator should ride the watercraft, holding onto the handlebars and supporting his or her body weight on the riding tray. This will help keep the bow of the watercraft out of the water.

EWJ00810

WARNING

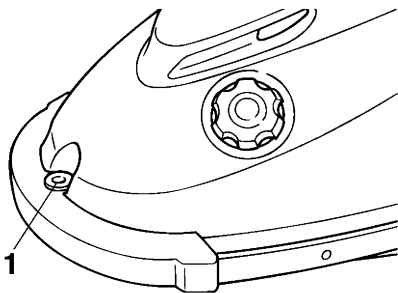
- The watercraft should only be towed in an emergency.
- The towline should be long enough so that the watercraft will not collide with the towing boat when slowing down. A good rule of thumb is a towline that is three times the combined length of the towing boat and the watercraft.
- The operator of 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.

ECJ00710

CAUTION:

- Tow the watercraft at 5 mph (8 km/h) or less, otherwise water could enter the engine through the exhaust passages or through the air intake and flood the engine compartment if it is towed too fast.

- **Tow the watercraft using the bow rope hole only.**
- **The bow must be kept up out of the water during towing to prevent water from entering the engine compartment.**



1 Bow rope hole

EJU34720

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 could result in serious engine damage!

In an emergency:

- (1) Beach the watercraft and remove the hood. Turn the watercraft over far enough to drain the water from the engine compartment.

ECJ00700

CAUTION:

Turning the watercraft on its side with the hood removed could cause damage to the steering pole. Use two people to provide enough support to make sure that the steering pole is not damaged.

- (2) Turn the watercraft upright again.
- (3) Turn the fuel cock knob to "OFF".
- (4) Remove the spark plugs and dry them with a cloth.

- (5) Without reinstalling the spark plugs, crank the engine until all of the water in the cylinders has been drained.
- (6) Install the spark plugs and the hood.
- (7) Turn the fuel cock knob to "ON".
- (8) Launch the watercraft into the water, and then run the engine for at least 10 minutes. If the engine does not start, repeat steps 3–8.
- (9) Shut the engine off.
- (10) Turn the fuel cock knob to "OFF", remove the silencer cap, and then spray a rust inhibitor such as Yamaha Stor-Rite Engine Fogging Oil into the carburetor while cranking the engine.
- (11) Have the watercraft inspected by a Yamaha dealer as soon as possible.

Consumer information

EJU34780

Limited warranty

YAMAHA MOTOR CORPORATION, U.S.A. WATERCRAFT 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 Watercraft Limited Warranty is your assurance of this commitment.

This warranty provides you with protection against the expense of repairs for your watercraft 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 watercraft to provide reliable service.

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

PERIOD OF WARRANTY. Any new Yamaha watercraft purchased for pleasure use from an authorized Yamaha 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 Watercraft purchased and utilized for commercial applications will be warranted for a period of ninety [90] days from the date of purchase, subject to exclusions noted herein. Replacement parts used in warranty repairs will be warranted for the balance of the applicable warranty period.

The warranty described here applies to watercrafts 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 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 watercraft is properly operated, maintained, and stored as specified in the applicable Owner's/Operator's Manual.

The owner of the watercraft shall give notice to an authorized Yamaha dealer of any and all apparent defects within ten [10] days of discovery and make the watercraft 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 watercraft 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 watercraft to and from an authorized Yamaha 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 watercraft inspected by an authorized Yamaha 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.

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.

Consumer information

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

YAMAHA MOTOR CORPORATION, U.S.A.
Post Office Box 6555
Cypress, California 90630

WARRANTY QUESTIONS AND ANSWERS

- Q. What costs are my responsibility during the warranty period?
- A. The customer's responsibility includes all costs of normal maintenance services, non-warranty repairs, accident and collision damages.
- Q. What are some examples of "abnormal" strain, neglect, or abuse?
- A. These terms are general and overlap each other in areas. Specific examples include:
Running the watercraft out of oil, operating the machine with a broken or damaged part which causes another part to fail, and so on. If you have any specific questions on operation or maintenance, please contact your Yamaha dealer for advice.
- Q. Does the warranty cover incidental costs such as transportation due to a failure?
- A. No. The warranty is limited to repair of the watercraft itself.
- Q. May I perform any or all of the recommended maintenance shown in the Owner's/Operator's Manual instead of having the dealer do them?
- A. Yes, if you are a qualified mechanic and follow the procedures specified in the Owner's/Operator's and Service Manual. We do recommend, however, that items requiring special or equipment be done by a Yamaha dealer.
- Q. Will the warranty be void or cancelled if I do not operate or maintain my new watercraft exactly as specified in the Owner's/Operator's Manual?
- A. No. The warranty on a new watercraft cannot be "voided" or "cancelled". **However, if a particular failure is caused by operation or maintenance other than as shown in the Owner's/Operator's Manual, that failure may not be covered under warranty.**
- Q. What responsibility does my dealer have under this warranty?
- A. Each Yamaha dealer is expected to:
1. Completely set up each new watercraft before sale.
 2. Explain the operation, maintenance, and warranty requirements to your satisfaction at the time of sale, and upon your request at any later date. In addition, each Yamaha dealer is held responsible for his setup, service and warranty repair work.
- Q. Is the warranty transferable to second owners?
- A. Yes. The remainder of the existing warranty can be transferred upon request. The unit has to be inspected and re-registered by an authorized Yamaha dealer for the policy to remain effective.

CUSTOMER SERVICE

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

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

CHANGE OF ADDRESS

The federal government requires each manufacturer to maintain a complete, up-to-date list of all first purchasers against the possibility of a safety-related defect and recall. This list is 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 watercraft, please advise us of your new address by sending a postcard listing your Yamaha model name, engine number, dealer number [or dealer's name] as it is shown on your warranty card, your name and new mailing address.

Mail to:

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

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

Consumer information

EJU34800

YAMAHA EXTENDED SERVICE (Y.E.S.)

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

- Y.E.S. is designed and administered by Yamaha Motor Corporation to provide maximum owner satisfaction. You get uninterrupted factory-backed coverage for extra peace of mind.
- Y.E.S. is flexible. You choose the plan that is right for you: 12 months, 24 months, 36 months, or (on four-stroke models) 48 months beyond your warranty period.
- Y.E.S. is designed and administered by the same Yamaha people who handle your warranty—and it shows in the comprehensive coverage benefits. There are no mileage limitations. Coverage is not limited to “moving parts” or the “drive train” like many other plans. And Y.E.S. covers manufacturing defects just like the warranty. See the sample contract at your Yamaha dealer to see how comforting uninterrupted factory-backed protection can be.
- You do not have to pay anything for covered repairs. There is no deductible to pay, and repairs are not “pro-rated.” You do not have any “out-of-pocket” expenses for covered repairs.
- In addition, Travel and Recreation Interruption Protection (TRIP) is included at no extra cost. TRIP gives you up to \$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.

A special note:

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

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



YAMAHA EXTENDED SERVICE

2-stroke engine oil 31

A

Approval label of emission control
certificate 2

B

Battery 35, 54
Battery, checking 66
Battery, jumping 72
Beaching the watercraft 49
Bilge 35
Boarding and starting in deep water 45
Boarding and starting in shallow water 45
Bow rope hole 28

C

Capsized watercraft 46
Carburetor, adjusting 67
Choke cable, adjusting 65
Choke knob 26
Cleaning the watercraft 54
Cooling water pilot outlet 26, 38
Cruising limitations 9

E

Emergency procedures 71
Emission control information 2
Engine break-in 39
Engine compartment 34
Engine overheat warning system 28
Engine serial number 1
Engine shut-off cord 38
Engine shut-off switch 25
Engine stop switch 25
Enjoy your watercraft responsibly 20

F

Filling the fuel tank 32
Fire extinguisher 35
Flushing the cooling system 52
Fuel and oil 31
Fuel cock knob 24
Fuel filter 59
Fuel system 34, 53
Fuel system, checking 59
Fuel tank 59
Fuel tank filler cap 24
Fuse, replacing 73

G

Gasohol 31
Gasoline 31
Getting to know your watercraft 42

H

Hazard information 13
Hood 23
Hull and deck 34
Hull Identification Number (HIN) 1

I

Identification numbers 1
Important labels 3

J

Jet intake 37
Jet intake and impeller, cleaning 71
Jet thrust nozzle angle, adjusting 61
Jet thrust nozzle angle, checking 59
Jumper cables, connecting 72

K

Kneeling 43

L

Labels, other 6
Labels, warning 4
Launching the watercraft 40
Learning to operate your watercraft 42
Leaving the watercraft 42
Limitations on who may operate
the watercraft 8
Limited warranty 75
Lubrication 53
Lubrication points 64

M

Main components, location of 21
Maintenance and adjustments 55
Manufactured date label 2
Mixing fuel and oil 31

O

Operating positions 43
Operating your watercraft 42
Operation 39
Operation of controls and other
functions 23
Operation requirements 10
Owner's/operator's manual and
tool kit 56

Index

P

Periodic maintenance chart..... 57

Post-operation care..... 50

Pre-operation check list..... 33

Pre-operation check points 34

Pre-operation checks 33

Primary Identification (PRI-ID) number 1

R

Recommended equipment..... 13

Rough water operation..... 49

Rules of the Road 15

S

Spark plugs, cleaning and adjusting 63

Standing 44

Start switch..... 26

Starting the engine 40

Starting the watercraft..... 44

Steering friction, adjusting..... 60

Steering pole 28, 37

Steering system 27, 37

Stern rope hole..... 28

Stopping the engine 42

Stopping the watercraft 49

Storage..... 52

Storage pouch..... 29

Submerged watercraft..... 74

Switches 38

T

Throttle cable, checking and adjusting..... 62

Throttle lever 26, 36

To get more boating safety information.... 19

Towing the watercraft..... 73

Transporting 51

Trolling speed, adjusting 67

Troubleshooting 69

Troubleshooting chart 69

Turning the watercraft 47

W

Water separator 34

Watercraft characteristics..... 14

Y

YAMAHA EXTENDED SERVICE
(Y.E.S.) 77



Printed in Japan
August 2007-0.4 × 1 CR

Printed on recycled paper