



**2007**  
**SuperJet**

**OWNER'S/OPERATOR'S MANUAL**

---

**YAMAHA MOTOR CO., LTD.**  
F1N-28199-75-E0

### **IMPORTANT NOTICE**

This personal watercraft is intended solely for racing. The use of this machine should be limited to designated areas or events.

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

# Important manual information

---

EJU30080

## DECLARATION OF CONFORMITY

### Product identification:

Product : Personal Watercraft  
Brand : YAMAHA  
Model / Commercial name: SJ700B-F / SuperJet  
Model specifics:  
Length: 2.24 (meters)  
Width: 0.68 (meters)  
Engine make: 64V  
Engine type: petrol  
Power: 48.5 (kW)  
Construction Material: Hull: SMC, Deck: HLU  
Max. persons: 1

Starting HIN of this model: 

J	P	Y	A	M	H	0	0	0	2	F	6	0	7	—
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

### Manufacturer:

YAMAHA MOTOR CO., LTD.  
2500 Shingai, Iwata  
Shizuoka, 438-8501  
Japan

### EU Representative:

YAMAHA MOTOR EUROPE N.V.  
Koolhovenlaan 101  
Schiphol-Rijk, 1119 NC  
The Netherlands

# Important manual information

---

## Technical Construction File:

Prepared by: YAMAHA MOTOR EUROPE N.V., T. Sato  
Function: Marine Homologation Engineer  
Date: December, 1996  
TCF: File No. PWC 001-tcf  
Competent Body: KEMA Quality B.V.  
Utrechtseweg 310  
Arnhem, 6812 AR  
The Netherlands  
Certificate/Report no.: 62513-KRQ/ECM 96-5225

## Means of conformity:

The product is in conformity with the Electro Magnetic Compatibility Directive 89/336/EEC, amended by directive 92/31/EEC, 93/68/EEC and 2004/108/EC based on the use of a Technical Construction File (TCF) in accordance with Article 10(2) of the Directive; using the following standards; for emission: CISPR 12 and for generic immunity: EN 50082-2:1995.

The product also complies with the requirements for construction as defined in EN ISO 13590:2003

Signature of representative: \_\_\_\_\_

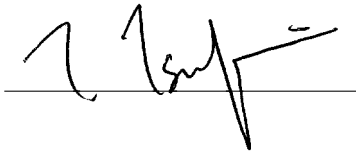
T. Tsuchiya

President

YAMAHA MOTOR EUROPE N.V.

Place: Schiphol-Rijk, The Netherlands

Date: 1<sup>st</sup> June 2006



# Important manual information

EJU30150

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

This manual is not a course on boating safety or seamanship. If this is your first watercraft, or if you are changing to a type of watercraft you are not familiar with, for your own comfort and safety, please ensure that you obtain proper training or practice before operating the watercraft by yourself. In addition, a Yamaha dealer or boating organization will be pleased to recommend local sea schools, or competent instructors.

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.

EJU30210

**SuperJet**  
**OWNER'S/OPERATOR'S MANUAL**  
©2006 by Yamaha Motor Co., Ltd.  
1st Edition, April 2006  
All rights reserved.  
Any reprinting or unauthorized use  
without the written permission of  
Yamaha Motor Co., Ltd.  
is expressly prohibited.  
Printed in Japan

# Table of contents

---

<b>General and important labels</b> .....	<b>1</b>	<b>Operation</b> .....	<b>25</b>
Identification numbers .....	1	Fuel and oil .....	25
Primary Identification (PRI-ID)		Gasoline .....	25
number .....	1	2-stroke engine oil .....	25
Hull Identification Number (HIN) .....	1	Mixing fuel and oil .....	25
Engine serial number .....	1	Filling the fuel tank .....	26
Model information .....	2	Pre-operation checks .....	27
Builder's plate .....	2	Pre-operation check list .....	27
Important labels .....	3	Pre-operation check points .....	28
Warning labels .....	4	Operation .....	33
Other labels .....	7	Engine break-in .....	33
<b>Safety information</b> .....	<b>8</b>	Launching the watercraft .....	33
Limitations on who may operate		Starting the engine .....	33
the watercraft .....	8	Stopping the engine .....	35
Cruising limitations .....	9	Leaving the watercraft .....	36
Operation requirements .....	10	Operating your watercraft .....	36
Recommended equipment .....	12	Getting to know your watercraft .....	36
Hazard information .....	13	Learning to operate your	
Watercraft characteristics .....	13	watercraft .....	36
Safe boating rules .....	14	Operating positions .....	37
Enjoy your watercraft		Starting the watercraft .....	38
responsibly .....	15	Boarding and starting in deep	
<b>Features and functions</b> .....	<b>16</b>	water .....	39
Location of main components .....	16	Capsized watercraft .....	40
Operation of controls and other		Turning the watercraft .....	41
functions .....	18	Stopping the watercraft .....	43
Hood .....	18	Beaching the watercraft .....	43
Fuel tank filler cap .....	19	Rough water operation .....	43
Fuel cock knob .....	19	Post-operation care .....	44
Engine stop switch .....	20	Transporting .....	45
Engine shut-off switch .....	20	<b>Maintenance and care</b> .....	<b>46</b>
Start switch .....	20	Storage .....	46
Choke knob .....	20	Flushing the cooling system .....	46
Throttle lever .....	21	Lubrication .....	47
Cooling water pilot outlet .....	21	Fuel system .....	47
Steering system .....	22	Battery .....	48
Steering pole .....	22	Cleaning the watercraft .....	48
Bow rope hole .....	22	Maintenance and adjustments .....	49
Stern rope hole .....	23	Owner's/operator's manual and	
Engine overheat warning system .....	23	tool kit .....	49
Storage pouch .....	24	Periodic maintenance chart .....	51
		Checking the fuel system .....	52

# Table of contents

---

Checking the jet thrust nozzle angle .....	52
Adjusting the steering friction .....	53
Adjusting the jet thrust nozzle angle .....	53
Checking and adjusting the throttle cable .....	55
Cleaning and adjusting the spark plugs .....	56
Lubrication points .....	57
Adjusting the choke cable .....	58
Checking the battery .....	59
Adjusting the carburetor .....	60
<b>Specifications .....</b>	<b>61</b>
Specifications .....	61
<b>Trouble recovery .....</b>	<b>62</b>
Troubleshooting .....	62
Troubleshooting chart .....	62
Emergency procedures .....	64
Cleaning the jet intake and impeller .....	64
Jumping the battery .....	65
Replacing the fuse .....	66
Towing the watercraft .....	66
Submerged watercraft .....	67

# General and important labels

EJU30260

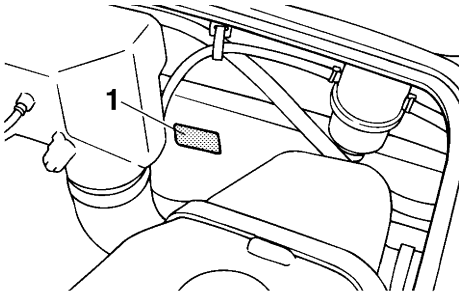
## Identification numbers

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

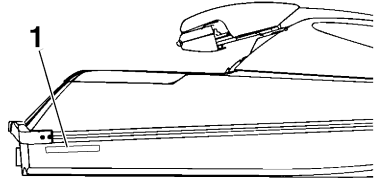
MODEL	□
PRI-I.D.	□
F1N	□
YAMAHA MOTOR CO., LTD	
MADE IN JAPAN	
PAYS D'ORIGINE JAPON	

F	1	N	-	□	□	□	□	□	□	□	□
---	---	---	---	---	---	---	---	---	---	---	---

EJU30290

## Hull Identification Number (HIN)

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



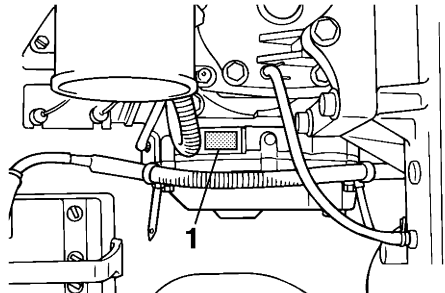
1 Hull Identification Number (HIN) location

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

<b>YAMAHA</b>		□
□	□	□
<b>YAMAHA MOTOR CO., LTD.</b>		
<b>MADE IN JAPAN</b>		
<b>PAYS D'ORIGINE JAPON</b>		



# General and important labels

EJU30320

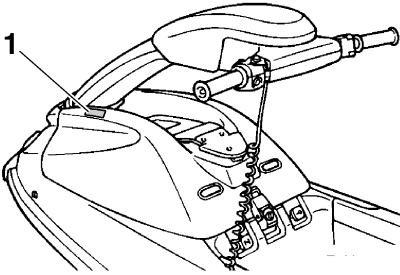
## Model information

EJU30330

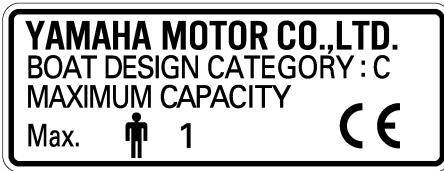
### Builder's plate

Part of the information is given on the builder's plate affixed on the craft. A full explanation of this information is given in the relevant sections of this manual.

However, some waves will be double this height.



1 Builder's plate location



**Design category of this personal watercraft: C**

**Category C:**

This watercraft is designed to operate in winds up to Beaufort force 6 and the associated wave heights (significant wave heights up to 2 m (6.56 ft); see the following NOTE). Such conditions may be encountered in exposed inland waters, in estuaries, and in coastal waters in moderate weather conditions.

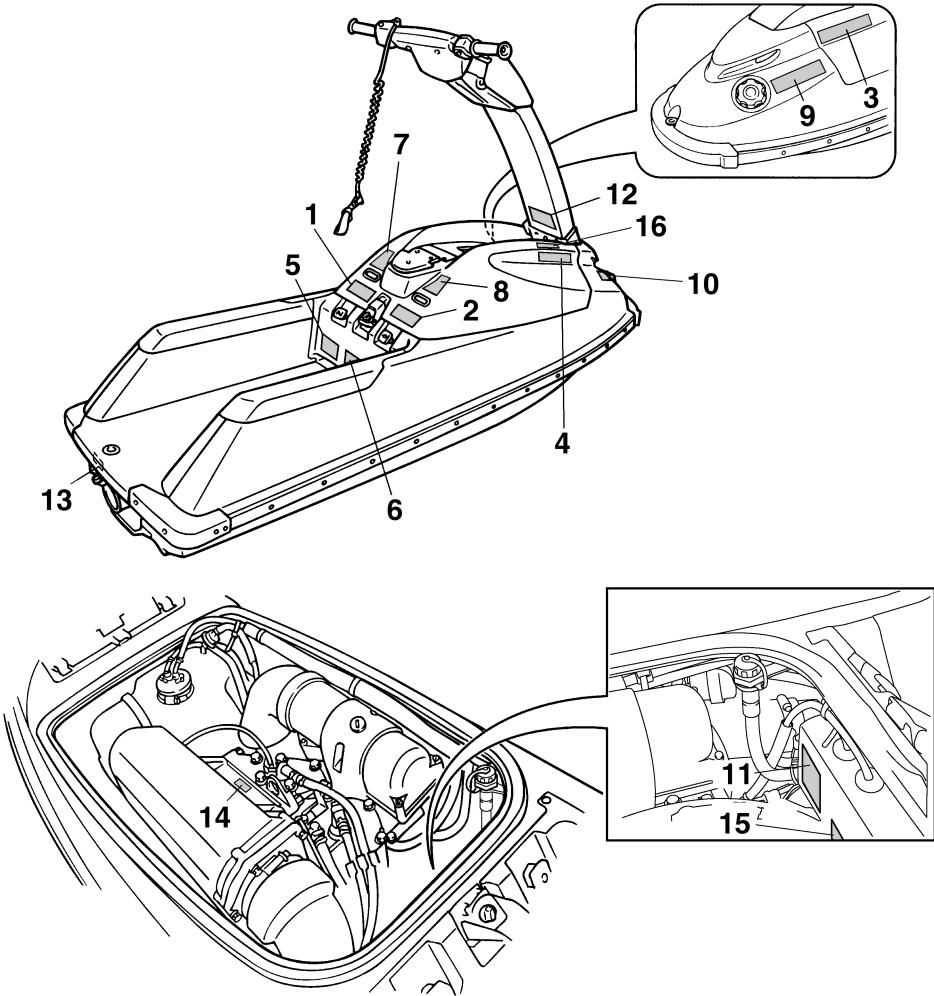
**NOTE:** \_\_\_\_\_

The significant wave height is the mean height of the highest one-third of the waves, which approximately corresponds to the wave height estimated by an experienced observer.

# General and important labels

EJU30450

## Important labels



# General and important labels

EJU35910

## Warning labels

1

**⚠ WARNING**

To reduce the risk of **SEVERE INJURY** or **DEATH**:  
**WEAR A PERSONAL FLOTATION DEVICE (PFD)**. All riders must wear an authority-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 handrails 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



GM6-641B1-21

2

**⚠ 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.

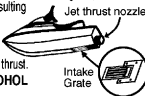
**DO NOT APPLY THROTTLE WHEN OTHERS ARE AT REAR OF PWC**-turn engine off or keep engine at idle. Water and/or debris exiting jet thrust nozzle can cause severe injury.

**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**



GM6-641B1-10

3

**⚠ AVERTISSEMENT**

*Afin de limiter les risques de BLESSURES GRAVES, voire MORTELLES: PORTER UN GILET DE SAUVETAGE. Tout utilisateur doit porter un gilet de sauvetage homologué pour les scooters des mers.*

**PORTER DES VÊTEMENTS PROTÉCTEURS**. Le choc infligé par la pénétration forcée d'eau dans les orifices corporels lors d'une chute ou lors du contact avec le jet d'eau de la pompe risque de provoquer des lésions graves. Le port d'un simple maillot de bain ne constitue pas une protection adéquate contre la puissance de pénétration de l'eau dans le rectum et/ou le vagin. Tout utilisateur doit porter le pantalon d'une tenue de plongée ou tout autre vêtement offrant une protection semblable. (Voir le manuel d'utilisation.)

Gilet de sauvetage

Pantalon d'une tenue de plongée

*Le port de chaussons, de gants et de lunettes de plongée est recommandé.*

**CONNAÎTRE LES LOIS DE NAVIGATION**. La Yamaha Motor Co., Ltd. recommande la limite d'âge de pilotage de 16 ans. Vérifier l'âge du pilote ainsi que les exigences quant à l'âge prévues par la législation locale. Il est préférable, et parfois requis par certaines législations, de suivre un cours de sécurité maritime.

**ATTACHER LA LANIÈRE DE L'INTERRUPTEUR D'ARRÊT DU MOTEUR** au poignet et l'éloigner du guidon afin que le moteur se coupe bien en cas de chute. Après utilisation, retirer la lanière du scooter afin de prévenir toute utilisation par des enfants ou des personnes non-autorisées. *Suite sur l'étiquette de droite*

GM6-641B1-41

4

**⚠ AVERTISSEMENT**

*Suite*  
**RESPECTER SES LIMITES ET ÉVITER LES MANOEUVRES BRUTALES** afin de limiter tout risque de perte de contrôle, d'éjection et de collision. Il s'agit d'un véhicule à hautes performances et pas d'un jouet. Des virées brusques ou le saut de sillages ou de vagues accroît le risque de blessures au dos, voire de paralysie, de blessures au visage et de fractures diverses. **Ne jamais sauter des sillages ni des vagues.**

**NE PAS DONNER DES GAZ LORSQUE DES PERSONNES SE TROUVENT DERRIÈRE LE VÉHICULE**; couper le moteur ou laisser tourner au ralenti. Eau et/ou débris projetés par la pompe pourraient causer des blessures graves.

**NE PAS S'APPROCHER DE LA GRILLE D'ADMISSION** lorsque le moteur tourne.

Pompe

Grille d'admission

*Cheveux longs, vêtements amples ou lanières de gilet de sauvetage risquent d'être happés, ce qui pourrait provoquer des blessures, ou même une noyade.*

**ÉVITER LES POUSSÉES PUISSANTES ET LA MAUVAISE VISIBILITÉ LORS DU REEMBARQUEMENT**. Se mettre rapidement debout ou à genoux, tout en veillant à ne pas s'exposer à un jet puissant.

**NE JAMAIS PILOTER APRÈS AVOIR ABSORBÉ DE L'ALCOOL, DES DROGUES OU CERTAINS MÉDICAMENTS.**

**LIRE ET RESPECTER LES INSTRUCTIONS DONNÉES DANS LE MANUEL D'UTILISATION.**

GM6-641B1-50

# General and important labels


5

**⚠ 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

6

**⚠ 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

7

**⚠ AVERTISSEMENT**

*Les collisions sont la cause principale des BLESSURES ET DÉCÈS d'utilisateurs de scooter des mers.*

**POUR ÉVITER LES COLLISIONS: ÉTRE CONSTAMMENT à l'affût de personnes, d'objets et d'autres bateaux. Être conscient des conditions limitant sa visibilité ou celle des autres embarcations. PILOTER AVEC PRUDENCE à des vitesses raisonnables et garder une distance de sécurité entre le scooter et toute personne, objet et embarcation.**



Suite sur l'étiquette de droite

YAMAHA GM6-641B2-40

8

**⚠ AVERTISSEMENT**

Suite

- Ne pas suivre une autre embarcation de trop près.
- Ne pas se rapprocher d'autrui en vue de l'éclabousser.
- Éviter les virages brusques ou toute manoeuvre qui risque de mettre un autre pilote en danger ou qui l'empêche de pouvoir déterminer clairement la direction que l'on prend.
- Éviter les endroits où flottent des objets et les eaux peu profondes.

**RÉAGIR RAPIDEMENT** en vue d'éviter les collisions. Garder à l'esprit que les bateaux n'ont pas de freins.

**NE PAS LÂCHER LES GAZ LORSQUE L'ON ESSAYE DE S'ÉLOIGNER** d'objets - une poussée est nécessaire à la direction du scooter des mers. Toujours s'assurer avant le départ que l'accélérateur et la direction fonctionnent correctement. Suivre les lois de navigation ainsi que les législations nationales, provinciales et locales concernant les scooters des mers.

Voir le manuel d'utilisation pour plus d'informations.

YAMAHA GM6-641B2-50

# General and important labels

9

<b>⚠ WARNING</b>	<b>⚠ AVERTISSEMENT</b>
<p>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.</p>	<p><i>L'essence est très inflammable et explosible. Un incendie ou une explosion risquent de provoquer des blessures graves, voire mortelles. Couper le moteur. Faire le plein dans un endroit bien aéré et éloigné de toute flamme ou étincelle. Ne pas fumer. Éviter de renverser de l'essence. Essuyer immédiatement toute coulure d'essence. Ouvrir le capot pour évacuer les vapeurs d'essence du compartiment du moteur avant de mettre le moteur en marche. Ne jamais mettre le moteur en marche en cas de fuite d'essence ou si un branchement électrique est desserré.</i></p>
<b>GASOLINE AND OIL MIXING RATIO : 50:1</b>	<b>RAPPORT DE MELANGE D'ESSENCE ET D'HUILE : 50:1</b>
<small>YAMAHA</small>	<small>F1N-6415B-10</small>



10

<b>⚠ AVERTISSEMENT</b>	
<b>APPLICABLE POUR LA FRANCE SEULEMENT</b>	
<ul style="list-style-type: none"> <li>• <i>En France : permis de conduire et immatriculation obligatoire.</i></li> <li>• <i>Navigation en mer autorisée entre 300 mètres et 1 mille nautique.</i></li> <li>• <i>Entre 0 et 300 mètres, se référer aux instructions nautiques locales affichées. Sinon, règle générale : vitesse maxi 5 noeuds (9Km/h) dans cette zone.</i></li> <li>• <i>Utiliser les chenaux obligatoires de sortie lorsqu'ils existent.</i></li> <li>• <i>Respecter les règles de priorité.</i></li> <li>• <i>Gilet de sauvetage obligatoire-Fusée et bout de remorquage à bord.</i></li> <li>• <i>Ne jamais conduire sous l'influence de l'alcool ou de drogues.</i></li> <li>• <i>Consulter la météo avant de sortir en mer.</i></li> <li>• <i>Une conduite responsable et un contrôle quotidien de votre machine suivant le manuel d'entretien YAMAHA seront garants de votre sécurité.</i></li> </ul>	
<small>YAMAHA</small>	<small>GA7-6416H-20</small>

11

<b>⚠ WARNING / AVERTISSEMENT / 警告</b>	
<p><b>Do not touch or remove electrical parts when starting or running the engine.</b></p>	
<p><b>Ne pas toucher ou retirer les pièces électriques lors du démarrage ou de la marche du moteur.</b></p>	
<p>運転中は電装品には触らないください。</p>	
<small>YAMAHA</small>	<small>6S6-63823-00</small>

12

<b>⚠ WARNING</b>	
<p>Be sure to connect breather hose to battery. Fire or explosion could result if not connected properly.</p>	
 <p>Breather hose</p>	
<b>⚠ AVERTISSEMENT</b>	
<p>Bien veiller à brancher la durit de mise à l'air à la batterie. Un mauvais branchement risque d'être à l'origine d'un incendie ou d'une explosion.</p>	
 <p>Mise à l'air</p>	
<small>YAMAHA</small>	<small>F1N-641DB-10</small>

# General and important labels

---

EJU35920

## Other labels

13



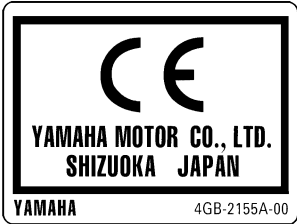
EU0-64188-00

14



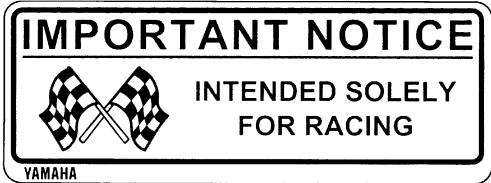
664-42791-10

15



4GB-2155A-00

16



F1N-6413S-00

EJU30680

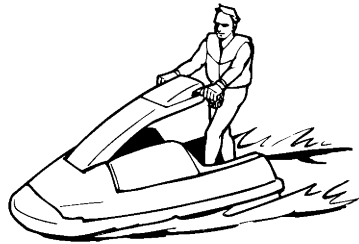
The safe use and operation of this watercraft is dependent upon the use of proper riding techniques, as well as upon the common sense, good judgment, and expertise of the operator. Before using this watercraft, make sure that its use is permitted under local laws, bylaws, and regulations, and always operate the watercraft in full conformity with any requirements and limitations imposed. 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, and all warning and caution labels on the 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, and all warning and caution labels.

EJU30700

### **Limitations on who may operate the watercraft**

- Yamaha recommends a minimum operator age of 16 years old. Adults must supervise use by minors. Know your local operator age and training requirements.
- This watercraft is designed to carry the operator only. Never have more than one person on the watercraft at any time.

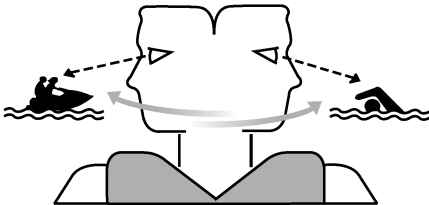


# Safety information

EJU30750

## Cruising limitations

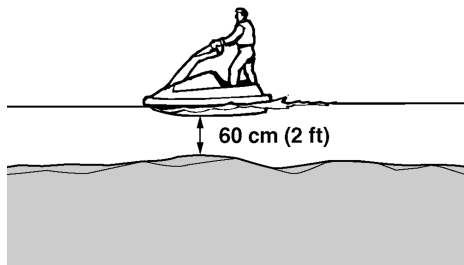
- Scan constantly for people, objects, and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.



- 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.
- 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, an-

cles, 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.

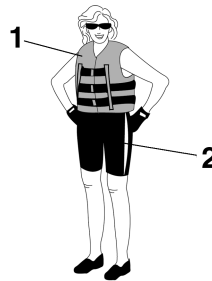


- Follow navigation rules, and state/provincial and local laws that apply to watercraft.

EJU30780

## Operation requirements

- All riders must wear a personal flotation device (PFD) that is approved by the appropriate authorities and 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 Authority-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.
- You must decide whether to wear a helmet while you ride for recreation. You should know that a helmet could help protect you in

## Safety information

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. 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.

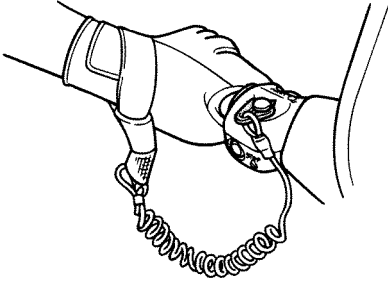


- For reasons of safety and proper care of the watercraft, always perform the pre-operation checks listed on page 27 before operating the watercraft.
- The operator should always keep both feet or knees on the riding tray when the watercraft is in motion. Lifting your feet increases the chances of losing 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

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 “Safe boating rules” and be sure to check behind you before making a turn. (See “Safe boating rules” on page 14.)

EJU30840

## 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.
- Visual distress signals  
It is recommended that a pyrotechnic device, which is approved by the appropriate authorities, be stored in a waterproof container on your watercraft. A mirror can also be used as an emergency signal. Contact a Yamaha dealer 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.

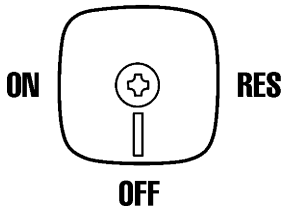
# Safety information

---

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.

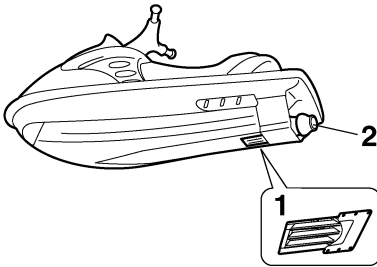
- This watercraft is water-jet propelled. The jet pump is directly connected to the engine. This means that jet thrust will produce some movement whenever the engine is running. There is no “neutral” position.
- Keep away from the intake grate while the engine is on. Items such as long hair, loose clothing, 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.

EJU30970

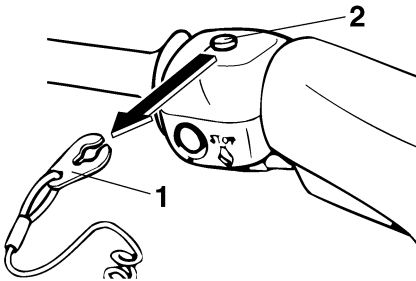
### Safe boating rules

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.



- 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

---

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.

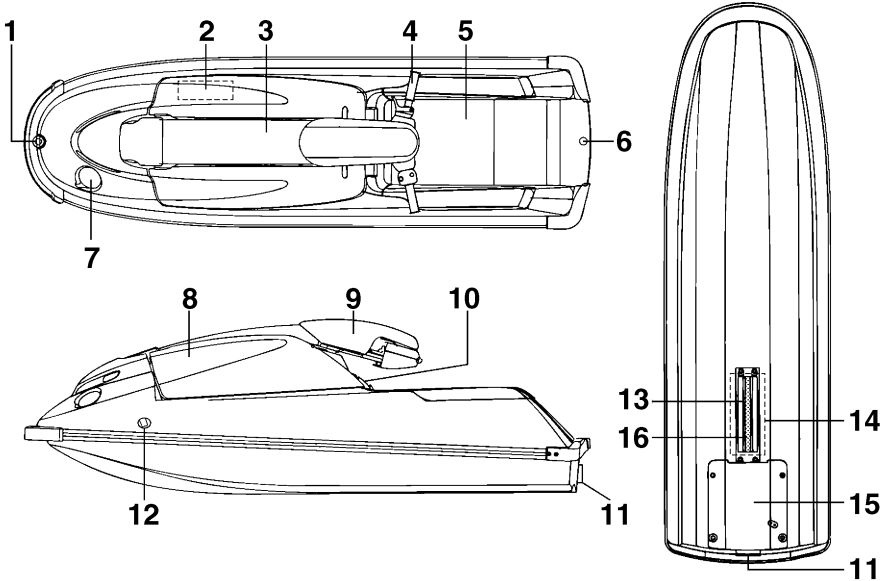
Remember, pollution can be harmful to the environment. Do not refuel or add oil where a spill could cause damage to nature. Remove your watercraft from the water and move it away from the shoreline before refueling. And keep your surroundings pleasant for the people and wildlife that share the waterways: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

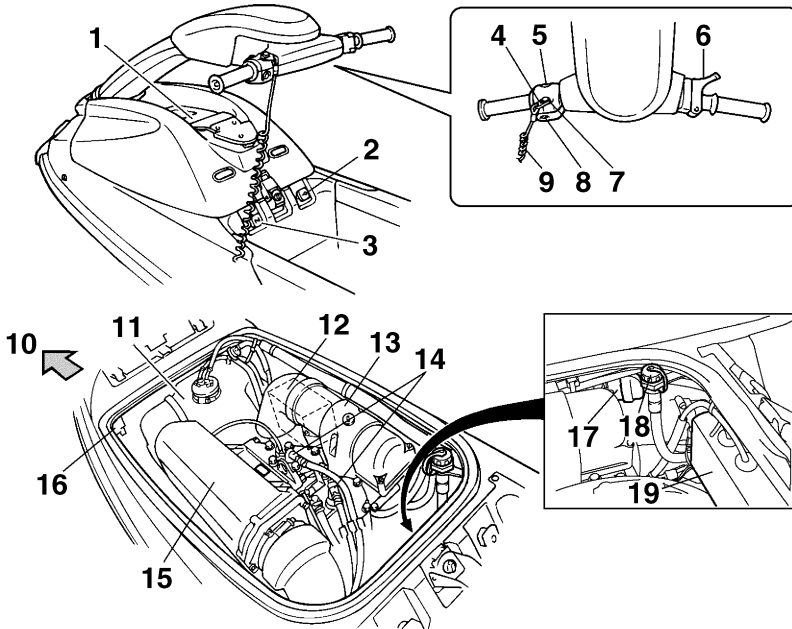
EJU31010

## Location of main components



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



# Features and functions

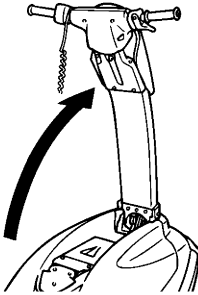
EJU31020

## Operation of controls and other functions

EJU31050

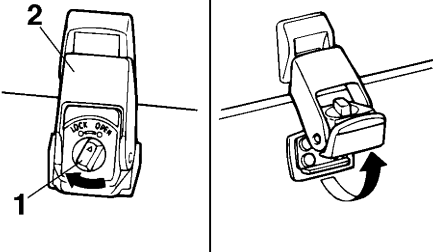
### Hood

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.



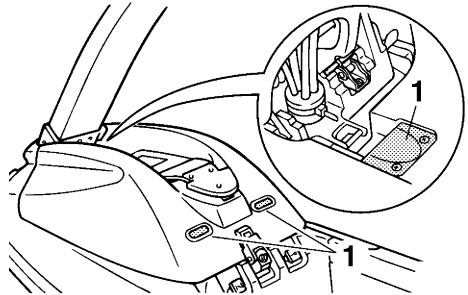
To remove the hood:

- (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

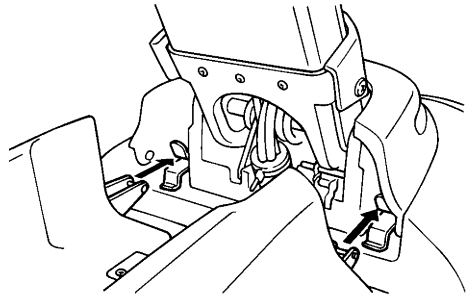
- (2) Grasp the hood using the handgrips provided at the front and rear of the hood. Lift the hood up and to the rear to remove it.



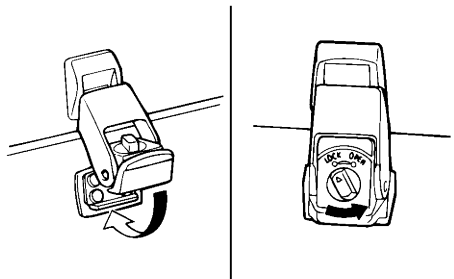
- 1 Handgrip

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.



# Features and functions

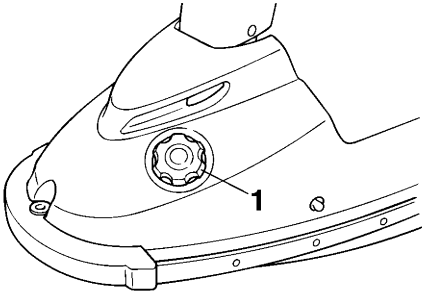
## NOTE:

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:

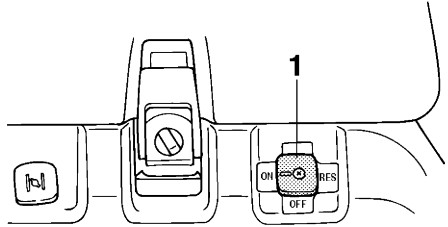
Make sure that the fuel tank filler cap is securely closed before operating the watercraft.

EJU31120

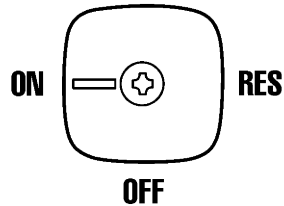
### Fuel cock knob

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

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:

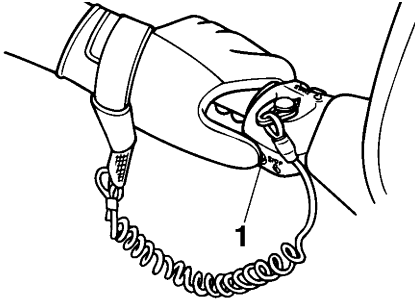
This indicates reserve. With the fuel cock knob in this position, the fuel reserve is made available. Turn the fuel cock knob to this position if you run out of fuel while operating the watercraft. When this occurs, refuel as soon as possible and be sure to turn the fuel cock knob back to "ON"!

# Features and functions

EJU31150

## Engine stop switch

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

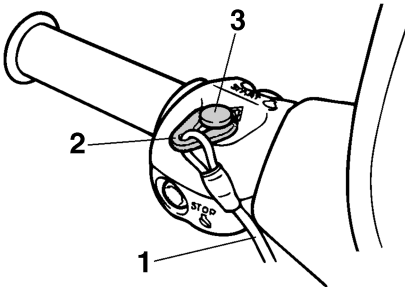


1 Engine stop switch

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.



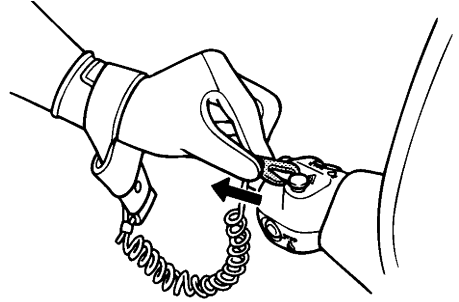
- 1 Engine shut-off cord
- 2 Clip
- 3 Engine shut-off switch

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.

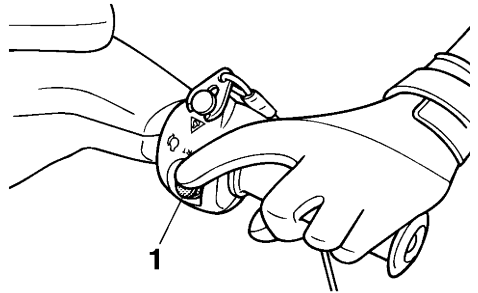
- To prevent accidental starting of the engine or unauthorized use by children or others, always remove the clip from the engine shut-off switch when the engine is not running.



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

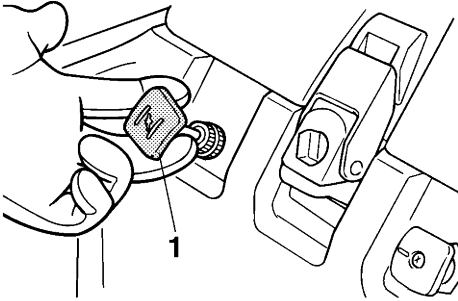
## Choke knob

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

# Features and functions

---

Pull the choke knob out to turn the choke on.



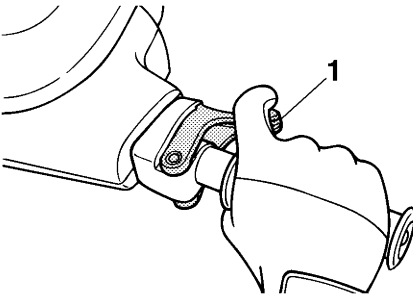
1 Choke knob

Push the choke knob in to turn the choke off.

EJU31210

## Throttle lever

Squeeze the throttle lever to increase engine speed.



1 Throttle lever

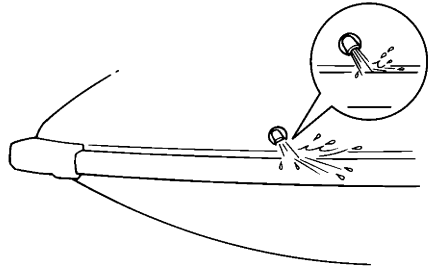
Release the throttle lever to decrease engine speed or to return it to the idle position.

EJU31220

## Cooling water pilot outlet

This watercraft is equipped with a cooling water pilot outlet.

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 23 and 64 for more information.)

## NOTE:

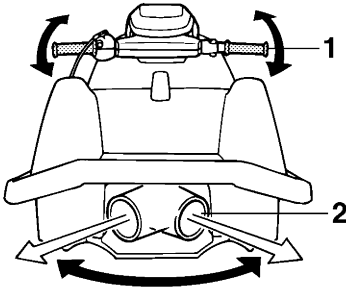
- If the cooling water passages are dry, it will take about 20 seconds for the water to reach the outlet after the engine is started.
  - Water discharge may not be constant at idle, therefore, open the throttle a little to check that water discharges properly.
-

# Features and functions

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

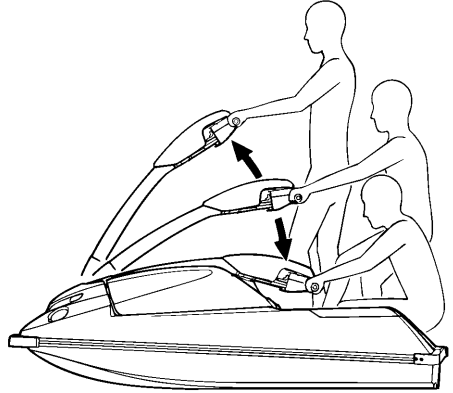
When the handlebars are turned, the angle of the jet thrust nozzle is changed, and the direction of the watercraft is changed accordingly. Since the strength of the jet thrust determines the speed and degree of a turn, throttle must always be applied when attempting a turn, except at trolling speed.

The angle of the jet thrust nozzle can be adjusted to suit operator preference. (See page 53 for adjustment procedures.)

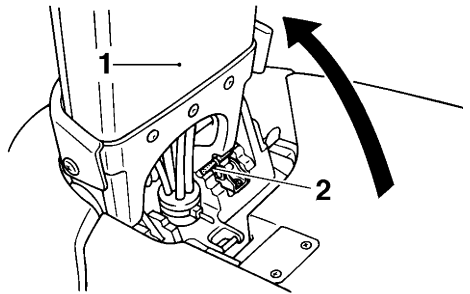
EJU31270

## 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

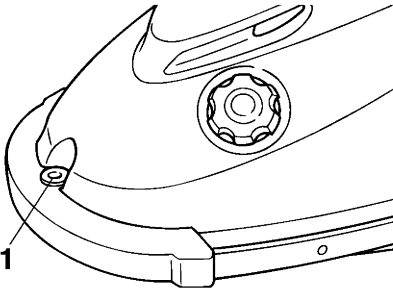
EJU36000

## Bow rope hole

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

# Features and functions

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



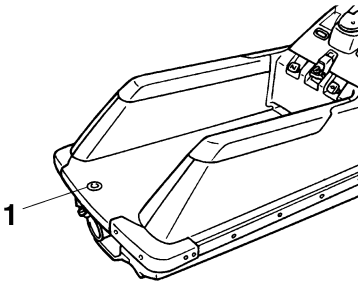
1 Bow rope hole

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

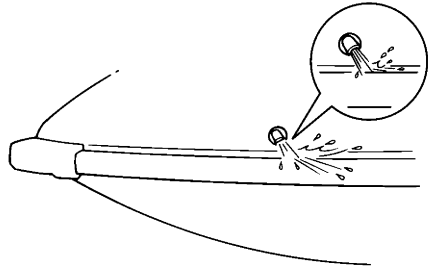
## Engine overheat warning system

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

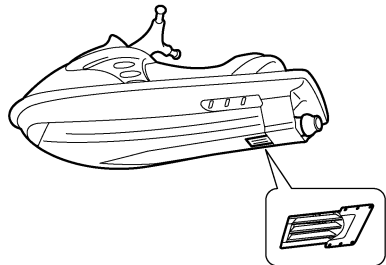
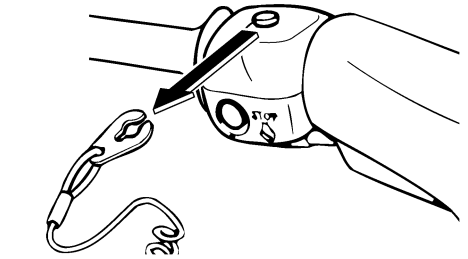
check the intake grate and impeller for clogging.



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.



# Features and functions

ECJ00040

## 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.**

EJU31670

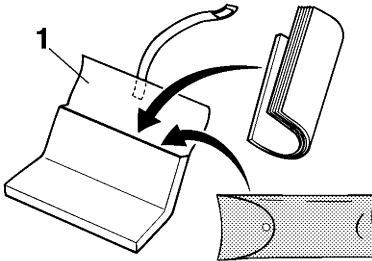
## Storage pouch

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

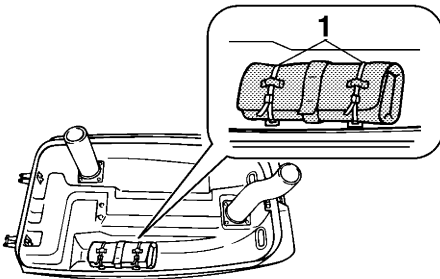
Bend the owner's/operator's manual slightly to insert it into the storage pouch, and then add the tool kit and any other small items. Fold the pouch, and then wrap the strap around it. Install the storage pouch on the hood and secure it with the bands.

## 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.



1 Storage pouch



1 Band

# Operation

EJU31790

## Fuel and oil

EJU31830

### Gasoline

EWJ00440



#### **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.

EJU31870

### **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

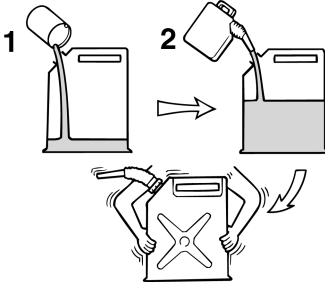
### **CAUTION:**

- 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

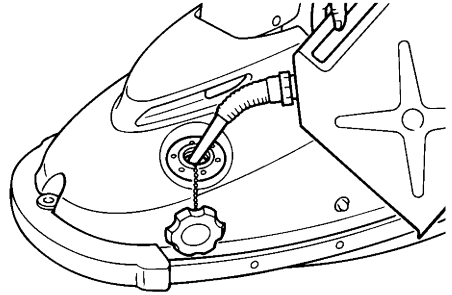
ECJ00290

### 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 18 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:

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

Reserve:

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

# Operation

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
<b>BEFORE LAUNCH OR OPERATION</b>		
<b>Engine compartment</b>	Remove the hood to ventilate the engine compartment. Check for fuel vapors and loose electrical connections.	28
<b>Bilge</b>	Check for water and fuel and drain if necessary.	29
<b>Throttle lever</b>	Check that the throttle lever springs back smoothly.	30
<b>Steering system</b>	Check for proper operation.	30
<b>Fuel</b>	Check the fuel level and replenish if necessary. Check the hoses and tank for leakage.	28
<b>Water separator</b>	Check for water and drain if necessary.	28
<b>Battery</b>	Check the electrolyte level and battery condition.	29
<b>Hood</b>	Check that the hood is securely closed.	18
<b>Hull and deck</b>	Check the hull and deck for cracks and other damage.	28
<b>Jet intake</b>	Check for debris and remove if necessary.	31
<b>Fire extinguisher</b>	Check the condition and replace if necessary.	29
<b>Engine shut-off cord</b>	Check the condition and replace if frayed or broken.	31
<b>Switches</b>	Check the start switch, engine stop switch, and engine shut-off switch for proper operation.	32
<b>AFTER LAUNCH</b>		
<b>Cooling water pilot outlet</b>	Check that water is discharged while the engine is running and the watercraft is in the water.	32

### 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

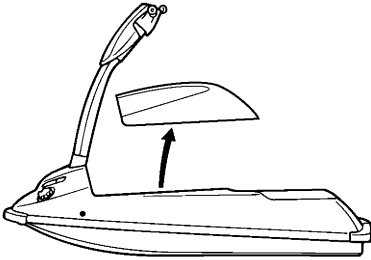
## Pre-operation check points

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 18 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

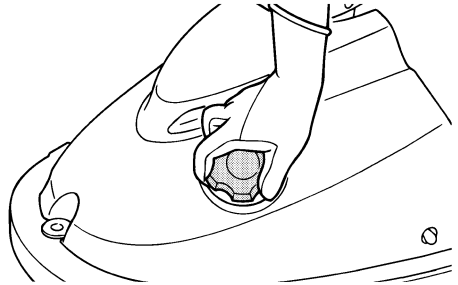
Check the hull and deck for cracks and other damage. If any damage is found, have a Yamaha dealer repair the watercraft.

EJU32360

### Fuel system

Check the fuel system for leakage, cracks, and malfunctions before each use. (See page 52 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.

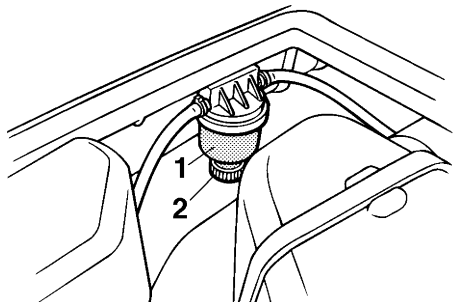


- (2) Remove the hood. (See page 18 for hood removal and installation procedures.)
- (3) Check the fuel level in the fuel tank and replenish if necessary. (See page 26 for filling procedures.)
- (4) Install the fuel tank filler cap and the hood.

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:

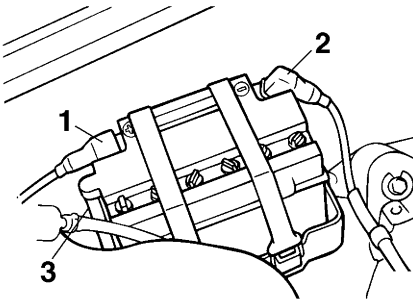
**Excessive water in the bilge can splash into the carburetor and engine, which can result in severe damage.**

EJU32480

## Battery

Check the battery condition and the electrolyte level.

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



- 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.

EJU32500

## Fire extinguisher

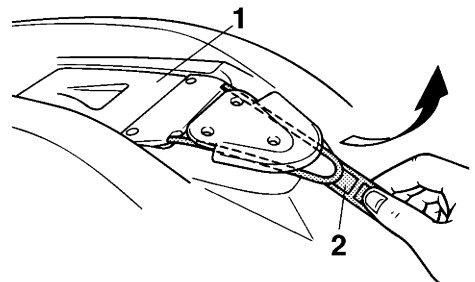
Check that there is a full fire extinguisher on board.



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

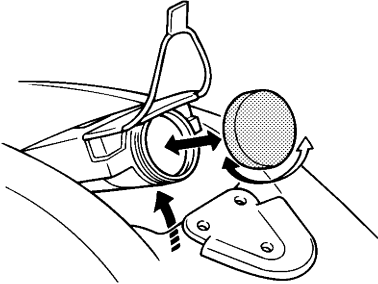
- (2) Lift the container about 30 degrees from the storage position.

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:

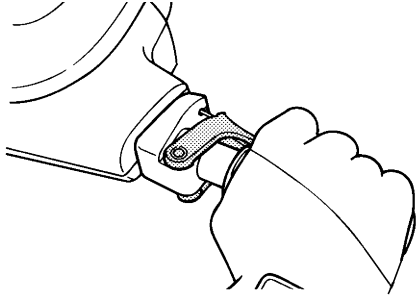
- To check the fire extinguisher, see the instructions supplied by the fire extinguisher manufacturer. Always keep the fire extinguisher in the fire extinguisher container.
- Always carry a fire extinguisher on board. A fire extinguisher is not standard equipment with this watercraft. If you do not have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

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.



EWJ00490

## WARNING

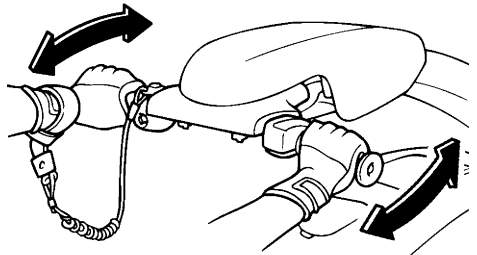
**Before starting the engine, always check the operation of the throttle lever.**

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.



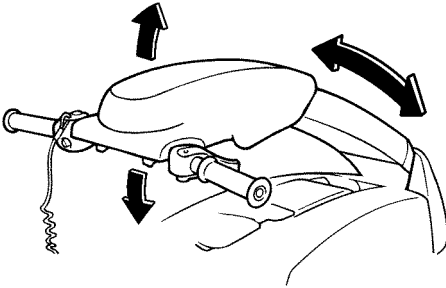
EJU32620

## Steering pole

Check the steering pole for looseness.

# Operation

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.

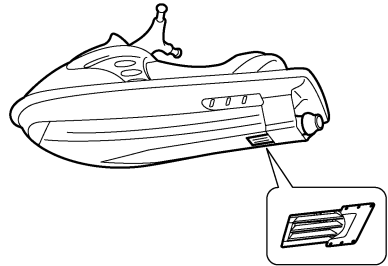
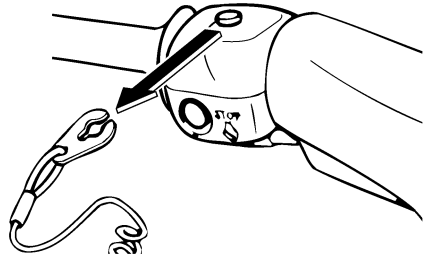
In some cases, the engine may overheat because of lack of cooling water, and damage to the engine could result. Cooling water is fed to the engine by the jet pump. (See page 64 for jet intake cleaning procedures.)

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

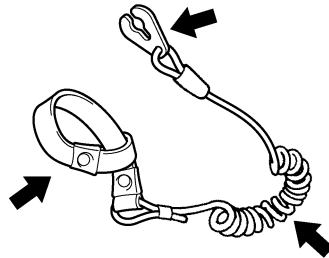
may have collected around the jet intake.



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

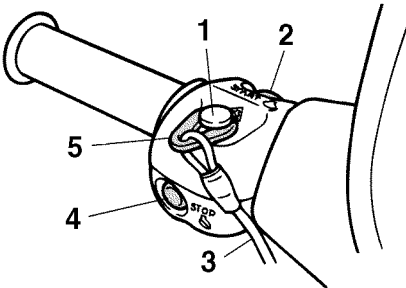
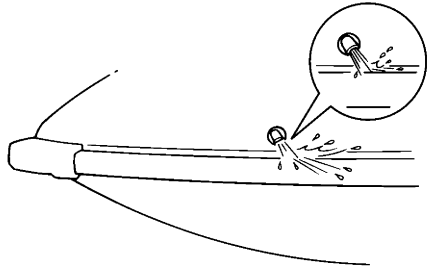
### CAUTION:

**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 20 to 20 for information on proper operation of the start switch, the engine stop switch, and the engine shut-off switch.)

and the watercraft is in the water. (See page 21 for more information.)



- 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

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.

EJU32750

### 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.

ECJ00420

### CAUTION:

- For the first 5 hours of operation or 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 33 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.

EJU32830

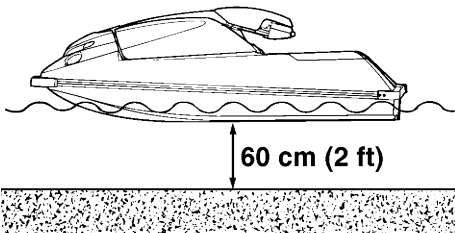
### Starting the engine

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.

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





EWJ00570

## WARNING

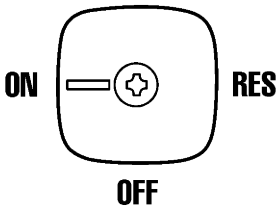
Never operate in water that is less than 60 cm (2 ft) deep, otherwise you increase your chance of hitting a submerged object, which could result in injury.

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.

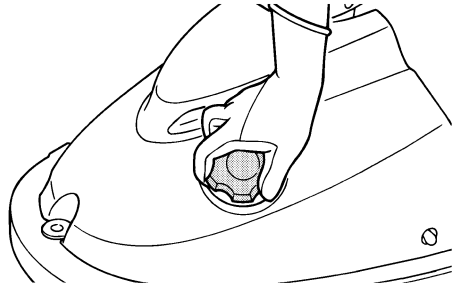
(2) Turn the fuel cock knob to "ON".



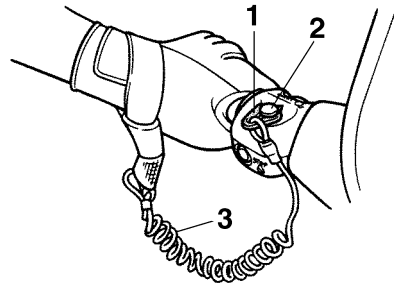
## NOTE:

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.



(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

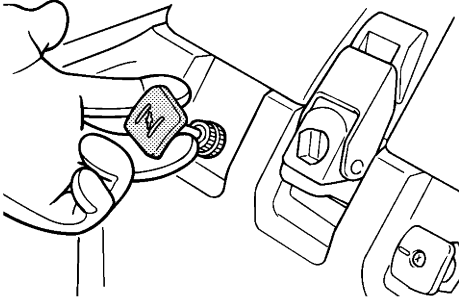
Check that the engine shut-off cord is not frayed or broken, and keep it free from the handlebars so that the engine stops if the operator falls off. The engine shut-off cord may not pull free if wrapped around the handlebars when the operator falls off, allowing the watercraft to continue to run and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

# Operation

**NOTE:** \_\_\_\_\_

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

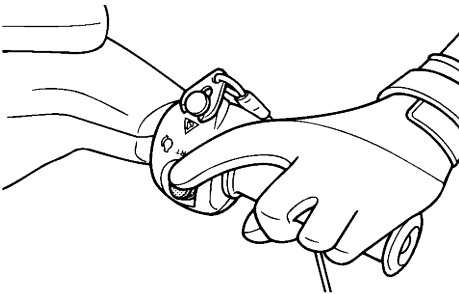
- (4) Pull the choke knob all the way out to start a cold engine.



**NOTE:** \_\_\_\_\_

The choke knob 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.

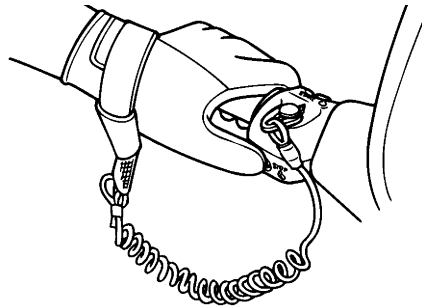
**NOTE:** \_\_\_\_\_

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**

EJU32920

### **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, and all warning and caution labels on the watercraft. Pay particular attention to the safety information on page 8. 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.

EJU32980

### **Learning to operate your watercraft**

Before operating the watercraft, always perform the pre-operation checks listed on page 27. The short time spent checking the watercraft will reward you with added safety and reliability.

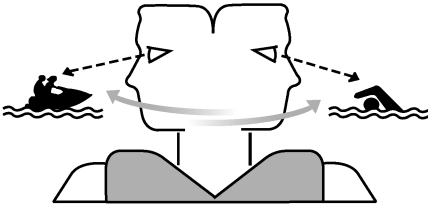
Check local laws before operating your watercraft.

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 PFD that is approved by the appropriate authorities and 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**

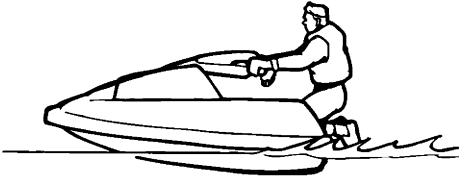
After you are underway, you may choose to kneel or stand, depending upon watercraft speed, your skill level, and your preference. Here are some guidelines.

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.



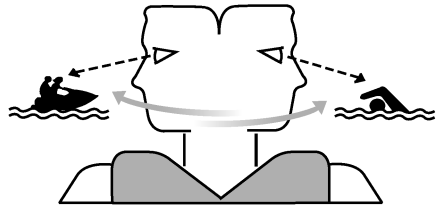
EJU33070

## 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.

EJU33100

## 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 39 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.

EWJ00640

## WARNING

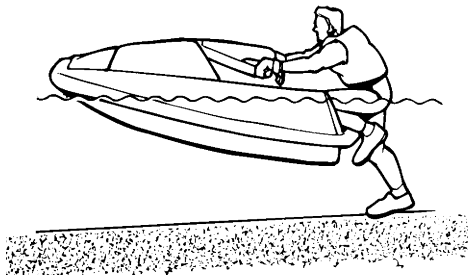
**Never operate in water that is less than 60 cm (2 ft) deep, otherwise you increase your chance of hitting a submerged object, which could result in injury.**

ECJ00500

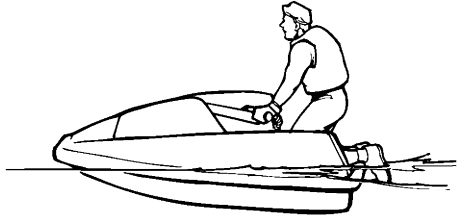
## CAUTION:

**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.

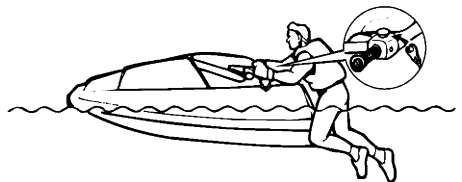
## NOTE:

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.

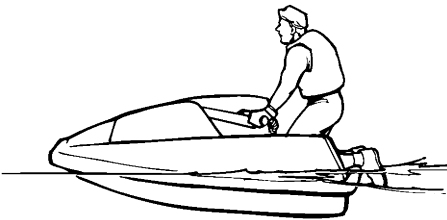


- (2) Grip the handlebars with both hands. Pull your body up onto the riding tray and bal-

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

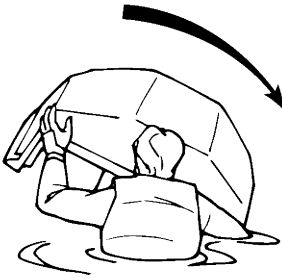
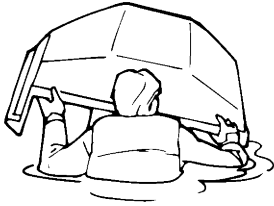
## **CAUTION:**

**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 66 or “Submerged watercraft” on page 67.)

**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

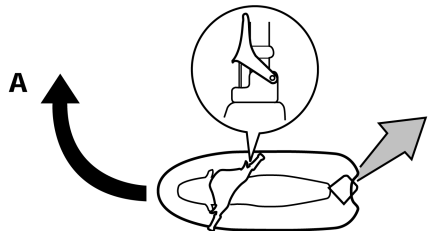
## Turning the watercraft

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.

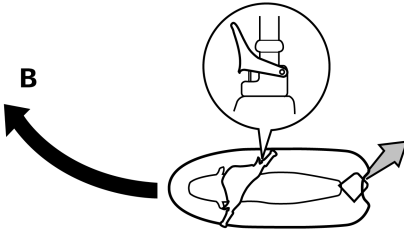
The amount of jet thrust, in addition to the position of the handlebars, determines how sharply you turn.

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

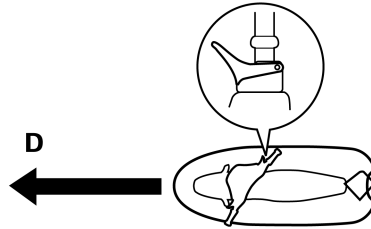




- B. Less throttle produces lower thrust, so the watercraft will turn more gradually.

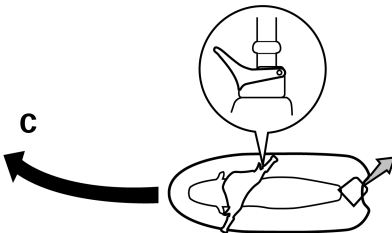


- D. If the engine is stopped while riding, there is no thrust. The watercraft will go straight even though the handlebars are turned.



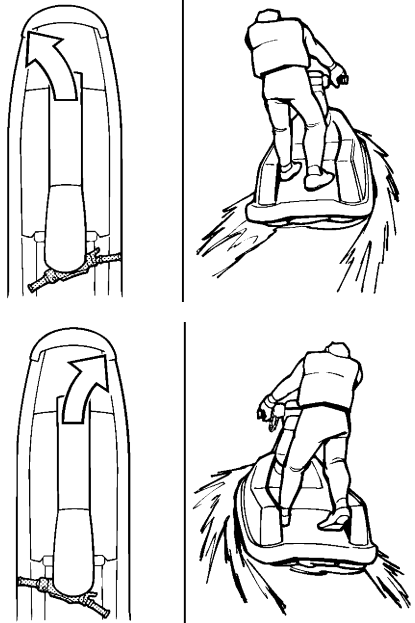
- C. Releasing the throttle lever completely produces only minimum thrust. If you are traveling at speeds above trolling, you will have rapidly decreasing ability to steer without throttle. You may still have some turning ability immediately after releasing the throttle lever, but once the engine slows 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.



### 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.

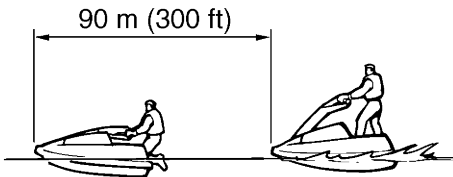
---

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.

EJU33360

## 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 46 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.

ECJ00560

### **CAUTION:**

**Do not run the engine for more than 15 seconds, 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 47 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

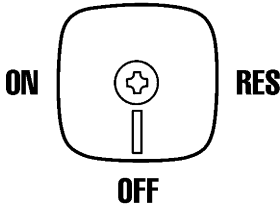
EJU33420

## Transporting

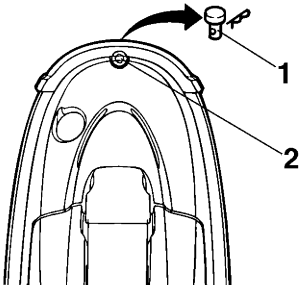
EWJ00750

### **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.



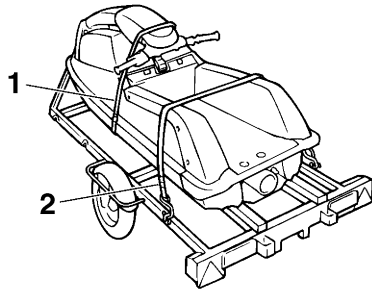
Transport this watercraft using a special trailer that incorporates a hole into which the pin can be inserted and locked after passing it through the bow rope hole.



- 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.

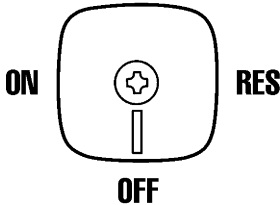
EJU33480

## 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.

EJU33510

### Flushing the cooling system

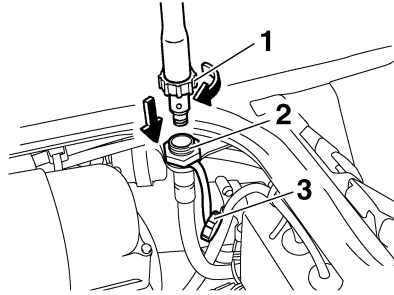
Flushing the cooling system is essential to prevent it from clogging with salt, sand, or dirt.

ECJ00120

### **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 water, otherwise the engine could over-heat.

- (1) Remove the watercraft from the water and place it in a horizontal position.
- (2) Remove the flushing hose connector cap, and then insert the garden hose adapter into the flushing hose connector and turn it until it is securely connected.



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

- (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.

# Maintenance and care

- (8) Remove the garden hose adapter and install the flushing hose connector cap.

EJU33560

## Lubrication

EWJ00300



**To reduce the risk of fire or explosion:**

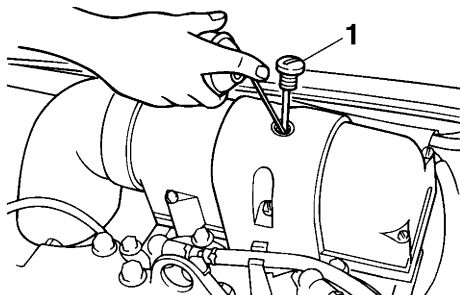
**Never pour or spray gasoline, or any substance other than a rust inhibitor through the hole in the carburetor silencer cover.**

ECJ00150

## 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 on land, 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. 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 suitable marine grease applicator 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 57.

EJU33640

## Fuel system

EWJ00290



**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.**

Draining the fuel system prevents buildup of varnishes and other harmful deposits that result when gasoline sits for a long period of time.

To drain the fuel system:

- (1) Turn the fuel cock knob to "OFF".
- (2) Drain the fuel tank using a siphon.

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.

EJU33700

## **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.
- (4) Wax the hull with a non-abrasive wax.
- (5) Wipe all vinyl and rubber components, such as the engine compartment seals, with a vinyl protectant.

### **NOTE:**

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

# Maintenance and care

EJU33760

## 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**

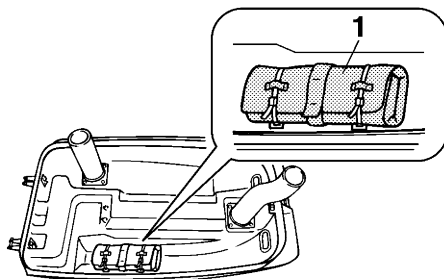
- **Be sure to shut the engine off when you perform maintenance unless otherwise specified, otherwise an accident or injury could result from unexpected operation, moving parts, or electric shock. If the owner is not familiar with watercraft servicing, this work should be done by a Yamaha dealer. Improperly 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**

**use. Consult a Yamaha dealer before attempting any modifications.**

EJU33780

## 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.

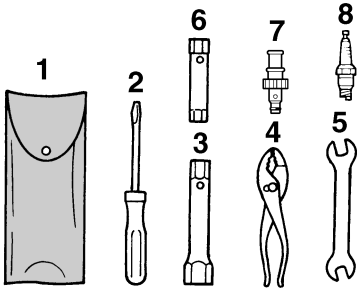
The service information included in this manual is intended to provide you, the owner, with the necessary information for completing your own preventive maintenance and minor repairs. The tools provided in the tool kit are sufficient for this purpose, except that a torque



# Maintenance and care

---

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 Garden hose adapter
- 8 Spark plug (one included for each cylinder)

# Maintenance and care

EJU33820

## 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	
<b>Spark plugs</b>	Check, clean, adjust	●	●	●	●		56
<b>Lubrication points</b>	Lubricate			●/○	●/○		57
<b>Intermediate housing</b>	Lubricate	○		●	●		57
<b>Fuel system</b>	Check			○	○		52
<b>Fuel filter</b>	Check, clean, replace	●/○				●/○	52
<b>Fuel tank</b>	Check, clean					●/○	52
<b>Carburetor</b>	Check, adjust	○		○	○		60
<b>Trolling speed</b>	Check, adjust			●	●		60
<b>Carburetor throttle shaft</b>	Check			○	○		—
<b>Cooling water passages</b>	Flush	●*					46
<b>Bilge strainer</b>	Clean			○	○		—
<b>Impeller</b>	Check			○	○		—
<b>Jet thrust nozzle angle</b>	Check, adjust			●/○	●/○		52
<b>Handlebar pivot shaft</b>	Check	○		○	○		—
<b>Steering friction</b>	Check, adjust	●		●	●		53
<b>Throttle cable</b>	Check, adjust	○		●	●		55
<b>Choke cable</b>	Check, adjust			●	●		58
<b>Battery</b>	Check, charge			●/○	●/○		59
<b>Rubber coupling</b>	Check					○	—
<b>Engine mount</b>	Check					○	—
<b>Nuts and bolts</b>	Check	○		○	○		—

\* This operation should be performed after every use.

# Maintenance and care

EJU34200

## 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:**

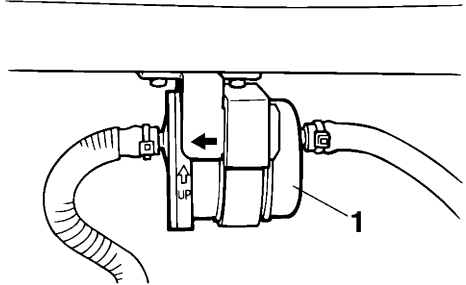
- Carburetor for leakage.
- Fuel pump for malfunction and leakage.
- Fuel tank filler cap and seal for damage.
- Fuel in fuel tank for water and dirt.
- Fuel tank for damage, cracks, and leakage.
- Fuel hoses and joints for damage, cracks, and leakage.
- Fuel filter for leakage.
- Fuel cock for leakage.
- 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

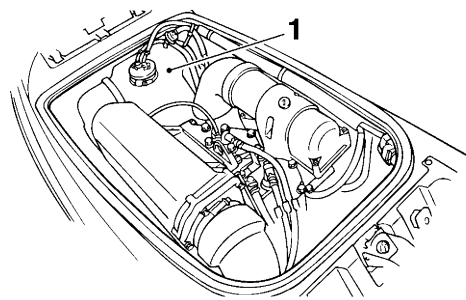
### **WARNING**

**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

EJU34320

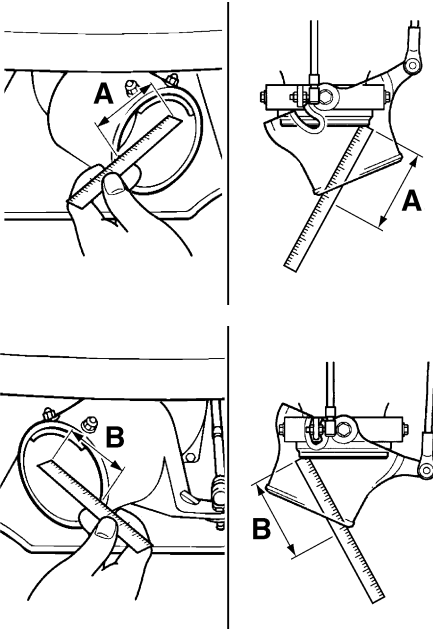
#### **Checking the jet thrust nozzle angle**

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.

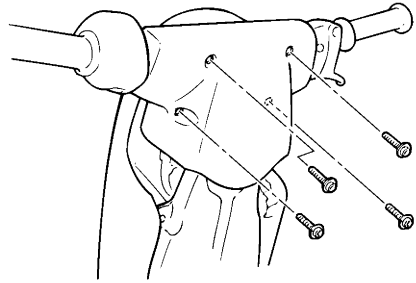
EJU34330

## Adjusting the steering friction

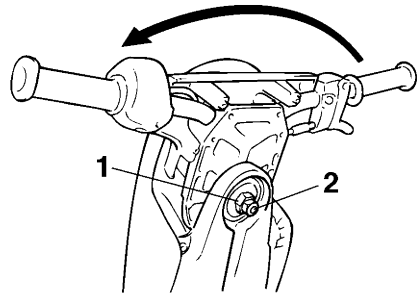
The amount of friction in the steering can be adjusted to suit operator preference.

To adjust the steering friction:

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



- (2) Turn the handlebars as far as possible to the right.
- (3) Loosen the locknut.
- (4) Tighten or loosen the adjusting nut until the desired amount of friction is obtained.



- 1 Adjusting nut
- 2 Locknut

- (5) 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)

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

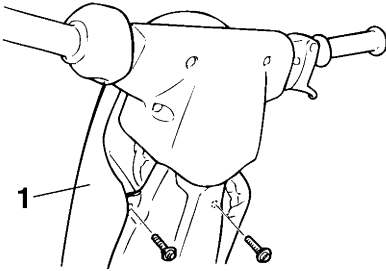
EJU31280

## Adjusting the jet thrust nozzle angle

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

# Maintenance and care

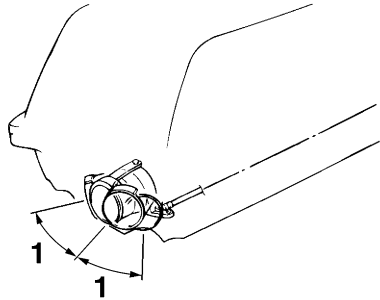
- (1) Loosen the two screws, and then remove the steering pole cover.



1 Steering pole cover

- (2) Select the desired nozzle angle. Changing the positions of the handlebar stopper and/or steering cable pivot bolt changes

the nozzle angle as shown in the following chart.



1 Nozzle angles

1	2
18.5°	S1  P1
20.5°	S2  P1
22.5°	S1  P2
24.5°	S2  P2

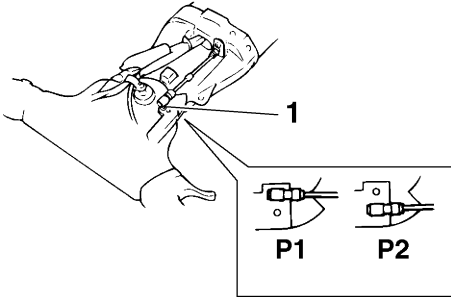
1 Nozzle angles

2 Handlebar stopper and steering cable pivot bolt positions

# Maintenance and care

To change the steering cable pivot bolt position:

- (1) Pull back the outer sleeve, and then disconnect the steering cable.



1 Steering cable pivot bolt

- (2) Remove the steering cable joint from the steering cable pivot bolt.
- (3) Loosen the pivot bolt, install it with the lock washer in the desired position (P1 or P2), and then tighten it to the specified torque.

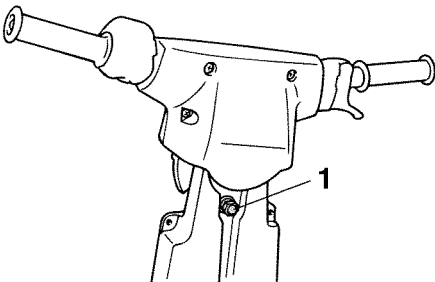
Tightening torque:

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

- (4) Install the steering cable joint on the steering cable pivot bolt.

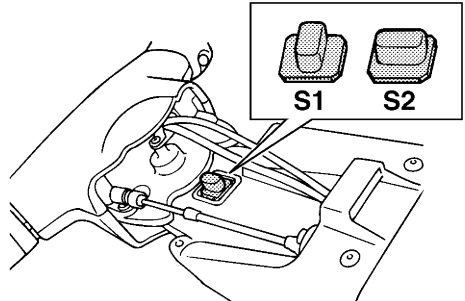
To change the handlebar stopper position:

- (1) Loosen the handlebar stopper nut on the operator's side of the steering pole.



1 Handlebar stopper nut

- (2) Lift and turn the handlebar stopper to the desired position (S1 or S2), and then tighten the handlebar stopper nut to the specified torque.



Tightening torque:

Handlebar stopper nut:  
31.0 Nm (22.9 ft-lb) (3.16 kgf-m)

- (3) Install the steering pole cover securely.

EJU34360

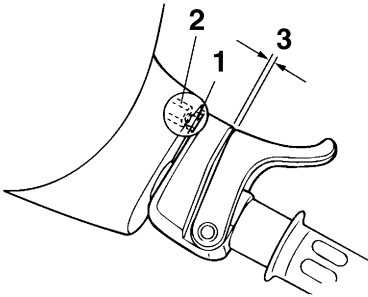
## Checking and adjusting the throttle cable

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

- (1) Squeeze and release the throttle lever. If the throttle lever does not return smoothly, have a Yamaha dealer service it.

# Maintenance and care

- (2) Adjust the free play by loosening the locknut and turning the adjuster.



- 1 Locknut
- 2 Adjuster
- 3 Throttle lever free play

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

EJU34370

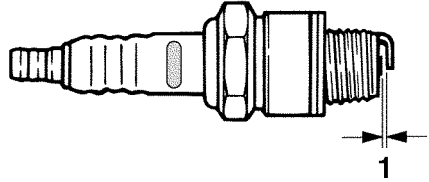
## Cleaning and adjusting the spark plugs

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

Remove and inspect the spark 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:  
BR7HS

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

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.

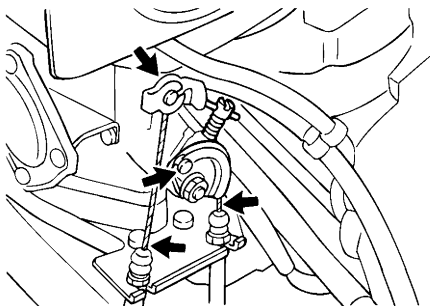
EJU34400

## Lubrication points

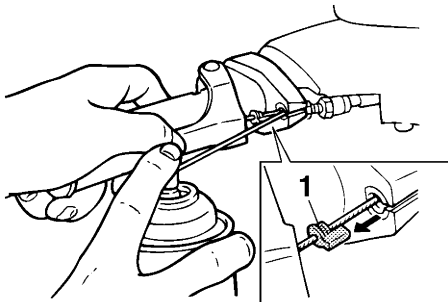
To keep moving parts sliding or rotating smoothly, coat them with water-resistant grease.

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

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

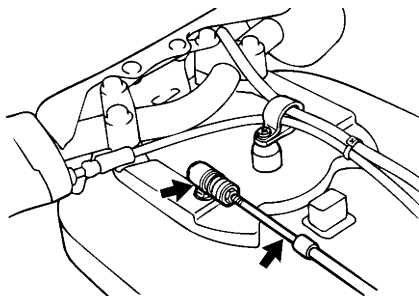


- Throttle cable (handlebar end)  
Squeeze the throttle lever and remove the seal. Spray a rust inhibitor into the outer cable. Refit the seal securely.



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.

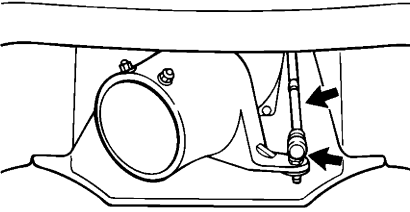


- Steering cable ball joint (jet thrust nozzle end)



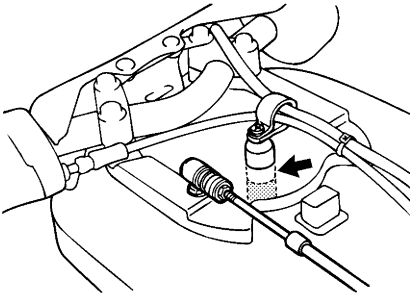
# Maintenance and care

- Steering cable inner wire (jet thrust nozzle end)

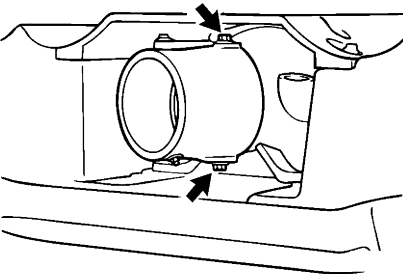


- Handlebar pivot shaft

Lubrication of the handlebar pivot shaft requires disassembly of steering components. 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:

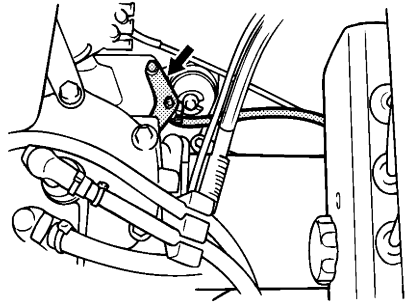
20.0–22.0 cm<sup>3</sup> (0.68–0.74 US oz)

(0.71–0.78 Imp.oz)

Every 100 hours or 12 months:

3.0–5.0 cm<sup>3</sup> (0.10–0.17 US oz)

(0.11–0.18 Imp.oz)



EJU34440

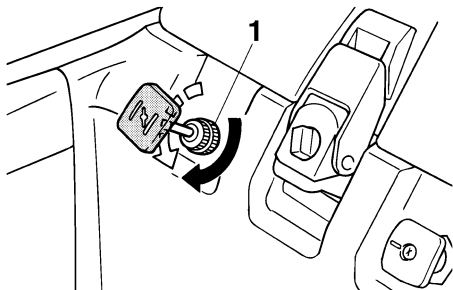
## Adjusting the choke cable

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

# Maintenance and care

slightly. If the knob is difficult to move, loosen the adjusting nut slightly.



1 Choke knob adjusting nut

EJU34450

## 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.**

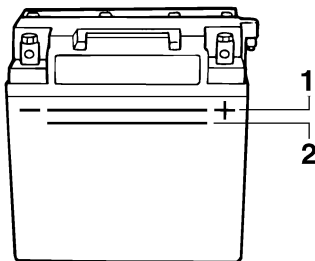
ECJ00230

### **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 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) Refill the battery with distilled water if necessary.

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.**

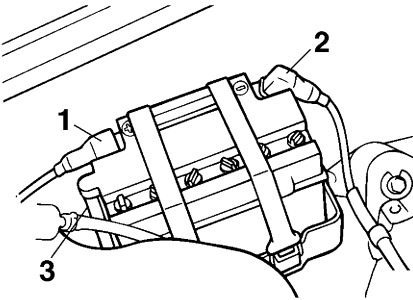
It is recommended to have a Yamaha dealer charge the battery. If you charge the battery yourself, carefully read the battery charger instructions before charging and follow the points below.

# Maintenance and care

- (1) Remove all of the battery caps.
- (2) If the electrolyte level is low, add distilled water to raise it to the specified level.
- (3) Set the charging rate to 1.9 ampere and charge the battery slowly until the explosive gases are discharged vigorously from the battery cells.

## 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.
- (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

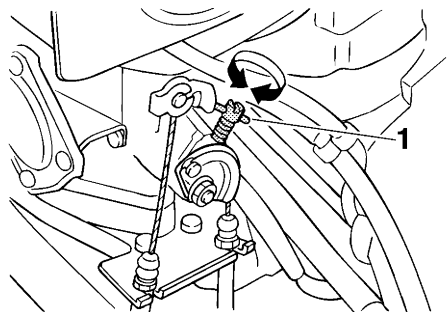
## **CAUTION:**

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 ±50 r/min

# Specifications

---

EJU34540

## 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:

132.0 kg (291 lb)

### Performance:

Maximum output (according to ISO 8665/SAE

J1228):

48.5 kW @ 6250 r/min

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:

701.0 cm<sup>3</sup> (42.78 cu.in)

Bore & stroke:

81.0 × 68.0 mm (3.19 × 2.68 in)

Compression ratio:

7.20 :1

Lubrication system:

Pre-mixed fuel and oil

Cooling system:

Water

Starting system:

Electric

Ignition system:

C.D.I.

Spark plug:

BR7HS

Spark plug gap:

0.6–0.7 mm (0.024–0.028 in)

Battery capacity:

12 V19.0 Ah

Charging system:

Flywheel magneto

### Drive unit:

Propulsion system:

Jet pump

Jet pump type:

Axial flow, single stage

Impeller rotation:

Counter clockwise

Jet thrust nozzle angle:

18.5, 20.5, 22.5, 24.5

### 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:

18.0 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
<b>Engine does not start (Starter motor does not turn over)</b>	Engine shut-off switch	Clip not in place	Install clip	20
	Fuse	Burned out	Replace fuse and check wiring	66
	Battery	Run down	Recharge	59
		Poor terminal connections	Tighten as required	59
		Terminal corroded	Clean	48
Starter motor	Faulty	Have serviced by Yamaha dealer	—	
<b>Engine does not start (Starter motor turns over)</b>	Fuel cock	Turned to "OFF"	Turn fuel cock knob to "ON"	19
	Fuel	Empty	Refill as soon as possible	26
		Stale or contaminated	Have serviced by Yamaha dealer	52
	Fuel tank	Water or dirt present	Have serviced by Yamaha dealer	52
	Spark plug	Fouled or defective	Clean or replace	56
	Spark plug cap	Not connected or loose	Connect properly	56
	Crankcase	Filled with water	Crank engine with plug out until clean	67
	Fuel filter	Clogged or water pooled	Have serviced by Yamaha dealer	52
	Choke	Knob moves back on its own	Tighten choke knob adjusting nut	58

# Trouble recovery

TROUBLE	POSSIBLE CAUSE		REMEDY	PAGE
<b>Engine runs irregularly or stalls</b>	Fuel	Empty	Refill as soon as possible	26
		Stale or contaminated	Have serviced by Yamaha dealer	52
		Too much oil in fuel mixing ratio	Correct fuel-to-oil ratio to 50:1	25
	Choke	Knob is left pulled	Push fully in	20
	Fuel filter	Clogged or water pooled	Have serviced by Yamaha dealer	52
	Fuel tank	Water or dirt present	Have serviced by Yamaha dealer	52
	Spark plug	Fouled or defective	Replace	56
		Incorrect heat range	Replace	56
		Gap incorrect	Adjust	56
	Spark plug cap	Loose	Connect properly	56
		Cracked, torn or damaged	Replace	—
	Electrical wiring	Loose electrical connections	Tighten or connect properly	—
	Carburetor	Incorrect idle adjustment	Adjust idle	60
		Clogged	Have serviced by Yamaha dealer	60
<b>Watercraft slow or loses power</b>	Cavitation	Jet intake clogged	Clean	64
		Impeller damaged or worn	Have serviced by Yamaha dealer	64
	Engine overheated	Jet intake clogged	Clean	64
	Fuel filter	Clogged	Have serviced by Yamaha dealer	52
	Spark plug	Fouled or defective	Replace	56
		Incorrect heat range	Replace	56
		Gap incorrect	Adjust	56
	Spark plug caps	Loose	Connect properly	56
	Fuel	Stale or contaminated	Have serviced by Yamaha dealer	52

EJU34620

## Emergency procedures

EJU34630

### Cleaning the jet intake and impeller

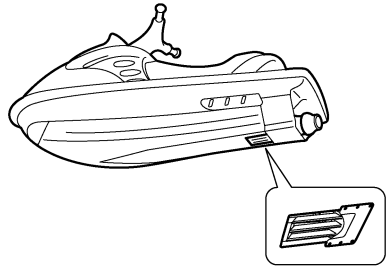
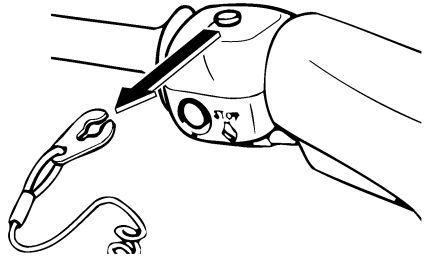
If weeds or debris get caught in the jet intake or impeller, cavitation can occur, causing jet thrust to decrease even though engine speed rises. If this condition is allowed to continue, the engine will overheat and may seize. If there is any sign that the jet intake or impeller is clogged with weeds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

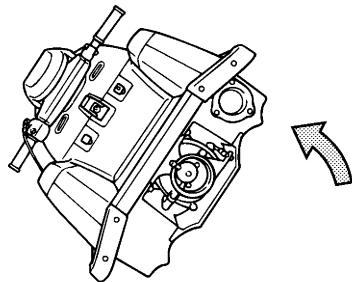


ECJ00650

### **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.

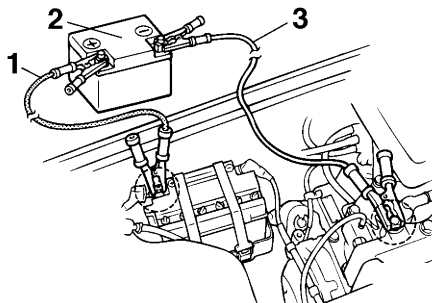
**Batteries produce explosive gases. Keep sparks, flames, cigarettes, etc., well away. If using or charging the battery in an enclosed space, make sure that it is well ventilated. Always shield your eyes when working near batteries.**

**KEEP OUT OF THE REACH OF CHILDREN.**

EJU34650

## 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-**



gine. Any wrong connection could damage the electrical system.

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

ECJ00690

## 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.

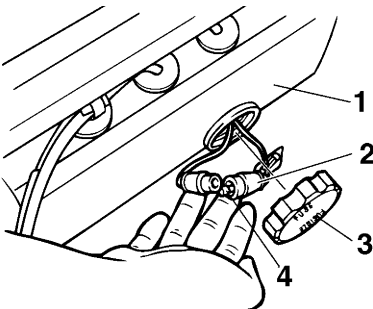
EJU34670

## 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.**

EJU34700

## 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.

ECJ00710

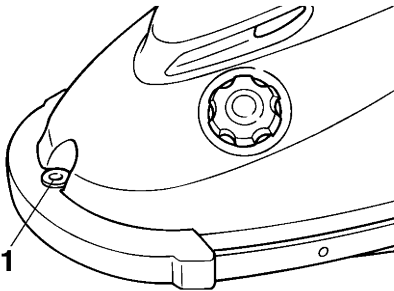
## CAUTION:

- 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.

# Trouble recovery

---

- The bow must be kept up out of the water during towing to prevent water from entering the engine compartment.
- 



1 Bow rope hole

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.
- 

EJU34730

## 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 into the carburetor while cranking the engine.
- (11) Have the watercraft inspected by a Yamaha dealer as soon as possible.

2-stroke engine oil.....	25	Getting to know your watercraft .....	36
<b>B</b>		<b>H</b>	
Battery.....	29, 48	Hazard information .....	13
Battery, checking.....	59	Hood.....	18
Battery, jumping .....	65	Hull and deck .....	28
Beaching the watercraft .....	43	Hull Identification Number (HIN).....	1
Bilge .....	29	<b>I</b>	
Boarding and starting in deep water .....	39	Identification numbers .....	1
Boarding and starting in shallow water ....	39	Important labels.....	3
Bow rope hole .....	22	<b>J</b>	
Builder's plate.....	2	Jet intake .....	31
<b>C</b>		Jet intake and impeller, cleaning.....	64
Capsized watercraft .....	40	Jet thrust nozzle angle, adjusting.....	53
Carburetor, adjusting.....	60	Jet thrust nozzle angle, checking .....	52
Choke cable, adjusting.....	58	Jumper cables, connecting .....	65
Choke knob .....	20	<b>K</b>	
Cleaning the watercraft .....	48	Kneeling .....	37
Cooling water pilot outlet.....	21, 32	<b>L</b>	
Cruising limitations .....	9	Labels, other .....	7
<b>E</b>		Labels, warning .....	4
Emergency procedures .....	64	Launching the watercraft.....	33
Engine break-in .....	33	Learning to operate your watercraft .....	36
Engine compartment .....	28	Leaving the watercraft.....	36
Engine overheat warning system .....	23	Limitations on who may operate the watercraft .....	8
Engine serial number .....	1	Lubrication.....	47
Engine shut-off cord .....	31	Lubrication points .....	57
Engine shut-off switch .....	20	<b>M</b>	
Engine stop switch .....	20	Main components, location of .....	16
Enjoy your watercraft responsibly .....	15	Maintenance and adjustments .....	49
<b>F</b>		Mixing fuel and oil .....	25
Filling the fuel tank .....	26	Model information.....	2
Fire extinguisher.....	29	<b>O</b>	
Flushing the cooling system.....	46	Operating positions .....	37
Fuel and oil.....	25	Operating your watercraft.....	36
Fuel cock knob .....	19	Operation .....	33
Fuel filter .....	52	Operation of controls and other functions .....	18
Fuel system.....	28, 47	Operation requirements .....	10
Fuel system, checking.....	52	Owner's/operator's manual and tool kit....	49
Fuel tank .....	52	<b>P</b>	
Fuel tank filler cap .....	19	Periodic maintenance chart.....	51
Fuse, replacing.....	66	Post-operation care .....	44
<b>G</b>		Pre-operation check list.....	27
Gasohol.....	25	Pre-operation check points .....	28
Gasoline .....	25		

# Index

---

Pre-operation checks .....	27
Primary Identification (PRI-ID) number .....	1
<b>R</b>	
Recommended equipment .....	12
Rough water operation.....	43
<b>S</b>	
Safe boating rules .....	14
Spark plugs, cleaning and adjusting .....	56
Standing .....	38
Start switch.....	20
Starting the engine .....	33
Starting the watercraft .....	38
Steering friction, adjusting .....	53
Steering pole .....	22, 30
Steering system .....	22, 30
Stern rope hole.....	23
Stopping the engine .....	35
Stopping the watercraft .....	43
Storage.....	46
Storage pouch.....	24
Submerged watercraft.....	67
Switches.....	32
<b>T</b>	
Throttle cable, checking and adjusting.....	55
Throttle lever .....	21, 30
Towing the watercraft.....	66
Transporting .....	45
Trolling speed, adjusting .....	60
Troubleshooting .....	62
Troubleshooting chart .....	62
Turning the watercraft .....	41
<b>W</b>	
Water separator .....	28
Watercraft characteristics.....	13





Printed in Japan  
May 2006-0.5 × 1 CR

Printed on recycled paper