



2005 SuperJet **700** 

## OWNER'S/OPERATOR'S MANUAL

#### **EC** declaration of conformity



THE MANUFACTURER: Yamaha Motor Europe N.V. P.O.Box 75033; 1117 ZN Schiphol; The Netherlands

HEREBY DECLARES THAT THE

Yamaha Personal Watercraft, type and serial number : SJ700 (F1N504514-)

COMPLIES WITH THE PROVISIONS OF THE

Directive 89/336/EEC relating to electromagnetic compatibility (EMC),

COMPLIES WITH THE PROVISIONS OF THE FOLLOWING HARMONIZED STANDARD:

- EN 50082-2

ALSO COMPLIES WITH THE FOLLOWING EUROPEAN STANDARDS, NATIONAL STANDARDS AND TECHNICAL PROVISIONS:
- CISPR 12.

Done at Schiphol, (The Netherlands), On, 2004-04-14

M. Inumaru, President

Yamaha Motor Europe N.V.

## To the owner/operator

Thank you for choosing a Yamaha watercraft. This Owner's/Operator's Manual contains information you will need for proper operation, maintenance, and care.

A thorough understanding of these simple instructions will help you to obtain maximum enjoyment from your new Yamaha. If you have any questions about the operation or maintenance of your watercraft, please consult a Yamaha dealer.

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

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

EJU01265

#### Important manual information:

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



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

#### **AWARNING**

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.

#### **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.

EJU01266

SuperJet 700
OWNER'S/OPERATOR'S MANUAL
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## GENERAL AND SAFETY INFORMATION



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6

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



# GENERAL AND SAFETY INFORMATION

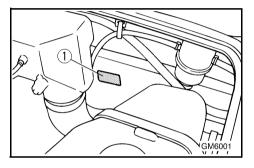
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### **Identification numbers**

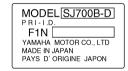
Record the Primary Identification (PRI-ID) number, Hull Identification Number (HIN) and engine serial number in the spaces provided for assistance when ordering spare parts from a Yamaha dealer. Also record and keep these ID numbers in a separate place in case your watercraft is stolen.

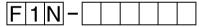


#### EJU01831

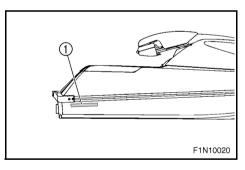
EJU01830

## Primary Identification (PRI-ID) number





The PRI-ID number is stamped on a label ① attached inside the engine compartment.

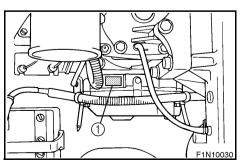


#### EJU18841

## Hull Identification Number (HIN)



The HIN is stamped on a plate ① attached to the hull on the aft, starboard (right) side.



#### EJU099/1

## Engine serial number



The engine serial number is stamped on a label ① attached to the engine unit.

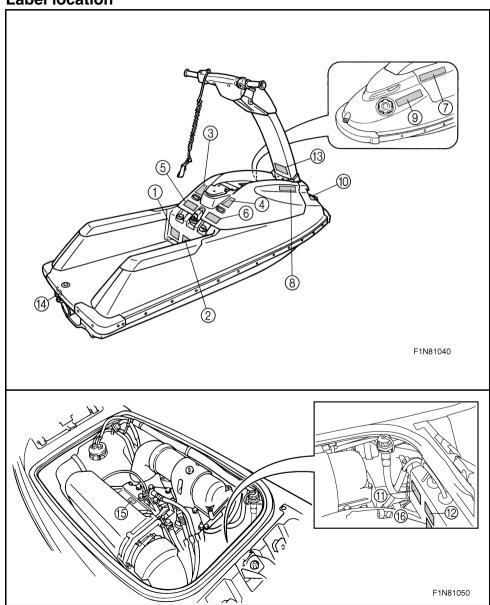




## Important labels

EJU01351

## **Label location**





E

E II I01352

## Warning labels

(1)

#### **AWARNING**

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

#### TO AVOID COLLISIONS:

block your vision of others.

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



**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

YAMA

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#### **AWARNING**

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.

**УАШАНА** 

GM6-641B2-10

③

## **AVERTISSEMENT**

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

POUR ÉVITER LES COLLISIONS: ÊTRE CONSTAMMENT

personne, objet

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

Suite sur l'étiquette de droite

et embarcation.

GM6-641B2-40

**(**4**)** 

## **A** 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'ELOIGNER d'objets - une poussée est nécessaire à la direction d'ou scouel 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

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(5)

#### **▲** 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 caylites as a result of failing into water or being near influence in the severe in the seve

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

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

Wet

DED

(6)

#### A 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 wayes can increase the risk of back/spinal injury (paralysis), facial injuries, and broken legs, ankles, and other bones. Do not jump wakes or wa

DO NOT APPLY THROTTLE WHEN OTHERS ARE AT REAR OF PWC-turn engine eep 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 Jet thrust nozzl

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

Intal

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#### A 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 PROTECTEURS. 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.)



Le port de chaussures, 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

(8)

### **A** AVERTISSEMENT

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 lou débris projetés par la pompe pourraient causer des blessures graves. NE PAS S'APPROCHER DE LA GRILLE D'ADMISSION lorsque le moteur tourne.

Grille

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 RÉEMBARQUEMENT. 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.

CAME GAIDS ED

(9)

## **WARNING**

### A AVERTISSEMENT

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

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.

GASOLINE AND OIL MIXING RATIO: 50:1

RAPPORT DE MELANGE D'ESSENCE ET D'HUILE: 50:1

VAMAHA

F1N-6415B-10



(10)

#### AVERTISSEMENT

APPLICABLE POUR LA FRANCE SEULEMENT
• En France : pèrmis de conduire et immatriculation obligatoire.
• Navigation en mer autorisée entre 300 mètres et 1 mille nautique.

- Entre O et 300 mètres, se référer aux instructions nautiques locales affichées. Sinon, règle générale : vitesse maxi 5 noeuds (9Km/h) dans cette zone.

  Utiliser les chenaux obligatoires de sortie lorsqu'ils existent.

- Respecter les régles de priorité.
  Gilet de sauvetage obligatoire-Fusée et bout de remorquage à bord.
  Ne jamais conduire sous l'influence de l'alcool ou de drogues.
- Consulter la météo avant de sortir en mer.
- Une conduite responsable et un contrôle quotidien de votre machine suivant le manuel d'entretien YAMAHA seront garants de votre sécurité.

(11)

## **▲**WARNING

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

YAMAHA

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#### **AVERTISSEMENT**

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

6H7-83623-50

(13)

## **AWARNING**

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



### **AVERTISSEMEN**

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.



VAMAHA

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### Other labels

(14)



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F II Innaga

## Safety information

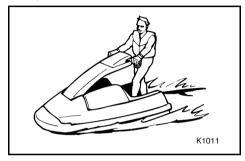
The safe use and operation of this watercraft is dependent upon the use of proper riding techniques, as well as upon the common sense, good judgment, and expertise of the operator. Before using this watercraft, make sure that its use is permitted under local laws, bylaws and regulations and always operate 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.

F II I01268

## 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.



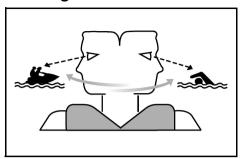
 This watercraft is designed to carry the operator only. Never have more than one person on the watercraft at any time.



E

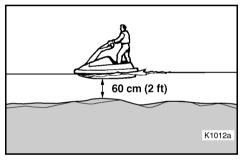
F II I01269

## **Cruising limitations**



- Scan constantly for people, objects, and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.
- Operate defensively at safe speeds and keep a safe distance away from people, objects, and other watercraft.
- Do not follow directly behind watercraft or other boats.
- Do not go near others to spray or splash them with water.
- Avoid sharp turns or other maneuvers that make it hard for others to avoid you or understand where you are going.
- Avoid areas with submerged objects or shallow water.
- Ride within your limits and avoid aggressive maneuvers to reduce the risk of loss of control, ejection, and collision.
- This is a high performance boat—not a toy. Sharp turns or jumping wakes or waves can increase the risk of back/spinal injury (paralysis), facial injuries, and broken legs, ankles and other bones. Do not jump wakes or waves.

- Do not operate the watercraft in rough water, bad weather or when visibility is poor; this may lead to an accident causing injury or death. Be alert to the possibility of adverse weather. Take note of weather forecasts and the prevailing weather conditions before setting out on your watercraft.
- As with any water sport, you should not operate your watercraft without someone else near by. 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.





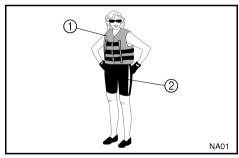


 This watercraft is not equipped with lighting required for night operation. Do not operate the watercraft after sunset or before dawn, otherwise you increase the risk of colliding with another boat, which could result in severe injury or death. EJU01270

#### Operation requirements

- All riders must wear a personal flotation device (PFD) that is approved by the appropriate authorities and suitable for personal watercraft use.
- Wear protective clothing. Severe internal injuries can occur if water is forced into body cavities as a result of falling into water or being near the jet thrust nozzle. Normal swimwear does not adequately protect against forceful water entry into rectum or vagina. All riders must wear a wetsuit bottom or clothing that provides equivalent protection.

Such clothing includes thick, tightly woven, sturdy and snug-fitting apparel such as denim, but does not include spandex or similar fabrics, like those used in bicycle shorts.



- 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 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 preoperation checks listed on page 3-5 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 your chances of losing your balance, and your feet being hit by objects outside the watercraft.

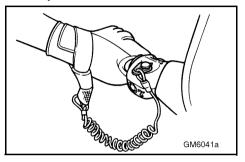


- Always consult your doctor on whether it is safe for you to operate this watercraft if you are pregnant or in poor health.
- Do not attempt to modify this watercraft!
   Modifications to your watercraft may reduce safety and reliability, and render the watercraft unsafe or illegal for use.





 Attach the engine shut-off cord (lanyard) to wrist and keep it free from the handlebars so that the engine stops if the operator falls off. After riding, remove the engine shut-off cord from the watercraft to avoid accidental starting or unauthorized use by children or others.



- Scan carefully for swimmers, and stay away from swimming areas. Swimmers are hard to see and you could accidentally hit someone in the water.
- Avoid being hit by another boat! You should always take the responsibility to watch for traffic; other boaters may not be watching for you. If they do not see you, or you maneuver more quickly than other boaters expect, you risk a collision.
- Maintain a safe distance from other boats or watercraft, and also watch for boats' ski ropes or fishing lines. Obey the "Safe boating rules" and be sure to check behind you before making a turn. (See Safe boating rules on page 1-12.)

FJU01382

Towline

### Recommended equipment

The following items should be carried on board your watercraft:

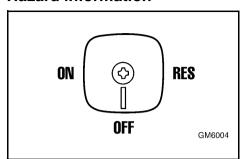
- Sound-signaling device
   You should carry a whistle or other sound-signaling device that can be used to signal other boats.
- Visual distress signals
   It is recommended that an authority-approved pyrotechnic device be stored in a waterproof container on your watercraft.
   A mirror can also be used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



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E II I01003

#### Hazard information



- When transporting or storing your watercraft, always place the fuel cock knob in the "OFF" position, otherwise gasoline may overflow from the carburetor.
- Never start the engine or let it run for any length of time in an enclosed area.
   Exhaust fumes contain carbon monoxide, a colorless, odorless gas that may cause loss of consciousness and death within a short time. Always operate the watercraft in an open area.

FJU01271

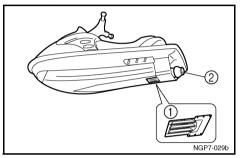
#### Watercraft characteristics

- 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, but once the engine slows down, the watercraft will no longer respond to handlebar input until you apply throttle again or you reach a trolling speed. Practice turning in an open area without obstructions until you have a good feel for this maneuver.
- This watercraft are water-jet propelled.
   The jet pump is directly connected to the engine. This means that jet thrust will produce some movement whenever the engine is running. There is no "neutral" position.

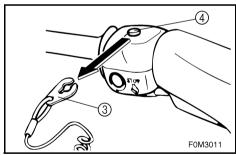




- Keep away from intake grate ① while the engine is on. Items such as long hair, loose clothing, or PFD straps can become entangled in moving parts resulting in severe injury or drowning.
- Never insert any object in the jet thrust nozzle ②. Severe injury or death could result from coming in contact with the rotating parts of the jet pump.



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



 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. EJU01005

## 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.





FJU01006

## Enjoy your watercraft responsibly

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

Whenever and wherever you ride, think of yourself as the guest of those around you. Remember, for example, that the sound of your watercraft may be music to you, but it could be just noise to others. And the exciting splash of your wake can make waves others won't enjoy. Avoid riding close to shoreline homes and waterfowl nesting areas or other wildlife areas, and keep a respectful distance from fishermen, other boats, swimmers, and populated beaches. When travel in areas like these is unavoidable, ride slowly and obey all laws.

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

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







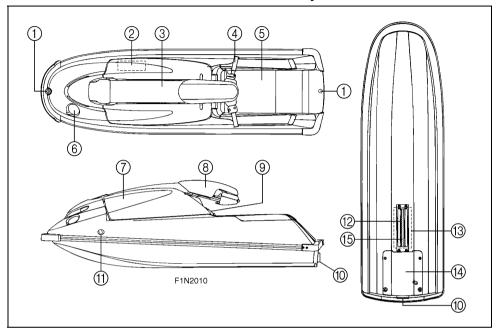
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Storage nouch	2-10





## Location of main components



#### ① Rope hole

Use to attach rope for transporting, mooring or towing the watercraft in an emergency.

- ② Storage pouch
- ③ Steering pole

Adjusts to suit operator's riding posture.

- 4 Handlebars
- Use to control direction.

  ⑤ Riding tray
- Stand or kneel here for balance.
- 6 Fuel tank filler cap
- 7) Hood
- Steering cover

#### Hood latch

Locks the hood.

#### Jet thrust nozzle

Changes the direction of jet thrust according to handlebar position.

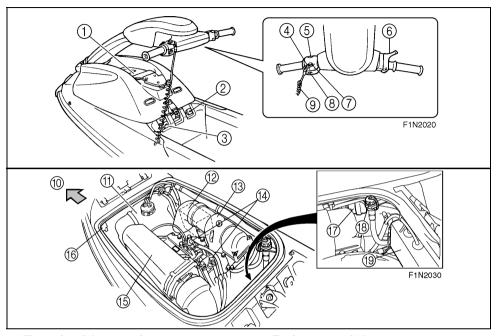
Prevents debris from getting into the jet pump.

- ① Cooling water pilot outlet
  Use to verify cooling water flow.
- ① Intake grate
- (3) Jet intake
- (4) Ride plate
- (5) Drive shaft

Transmits power from the engine to the jet pump.







#### ① Fire extinguisher container

Use to store the fire extinguisher.

#### ② Fuel cock knob

Use to select either normal or reserve fuel flow from the fuel tank to the carburetors, or to shut off fuel flow.

#### 3 Choke knob

Use to start a cold engine.

#### 4 Clip

Insert into the engine shut-off switch to enable starting of the engine.

Remove to stop the engine or prevent accidental starting of the engine or unauthorized use of the watercraft.

#### (5) Start switch

Push to start the engine.

#### **6** Throttle lever

Use to accelerate and decelerate.

#### (7) Engine shut-off switch

Remove the clip to stop the engine and disable it from starting.

#### ® Engine stop switch

Push to stop the engine normally.

#### (9) Engine shut-off cord (lanyard)

Attach to wrist so that the engine stops if the operator falls off the watercraft.

#### (10) **Bow**

- (f) Fuel tank
- (2) Battery
- (13) Silencer

Prevents water from getting into the engine and reduces air intake noise.

#### (4) Spark plugs/Spark plug caps

#### (5) Muffler

#### (6) Water separator

Traps water from the breather hose to the fuel tank

#### (7) Fuel filter

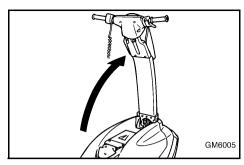
#### (8) Flush hose connector

Use to flush the engine cooling water passages.

#### (9) Electrical box

Protects electrical components from water.





FJU01009

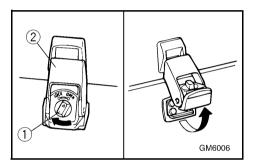
## Operation of controls and other functions

EJU01272

#### Hood

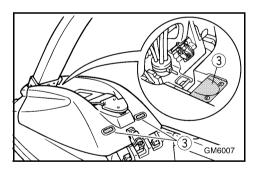
The hood is secured at the rear by a latch.

Lift the steering pole and support it with the lock pin before removing the hood.

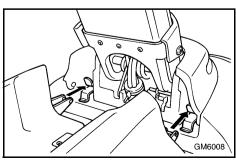


#### To remove the hood:

Turn the latch knob ① to the open position, and then pull up on the hood latch ② to unlatch the hood.



2. Grasp the hood using the handgrips ③ provided at the front and rear side of the hood. Lift the hood up and to the rear to remove it.

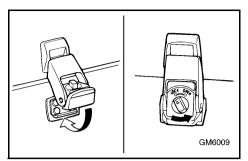


#### To install the hood:

 Position the hood on the deck so the two projections at the front of the hood fit under the two stays on the deck.



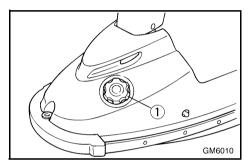




2. Push down on the hood latch, and then turn the knob to the lock position.

#### NOTE:

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



EJU01012

## Fuel tank filler cap

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

#### NOTE: \_

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

EJU01014

#### Fuel cock knob

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

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

#### OFF:

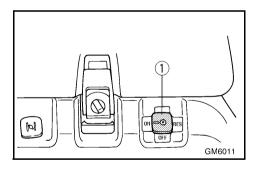
With the fuel cock knob in this position, fuel does not flow. Always turn the fuel cock knob to this position when the engine is not running.

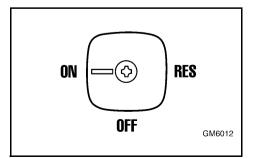
#### ON:

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

#### RES:

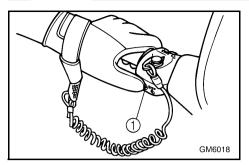
This indicates reserve. With the fuel cock knob in this position, the fuel reserve is made available. Turn the fuel cock knob to this position if you run out of fuel while operating the watercraft. When this occurs, refuel as soon as possible and be sure to turn the fuel cock knob back to "ON"!





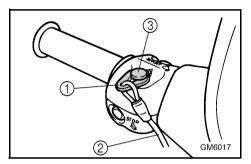






#### **Engine stop switch**

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



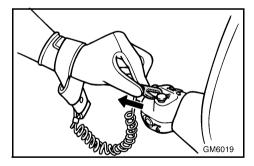
E II I01016

## **Engine shut-off switch**

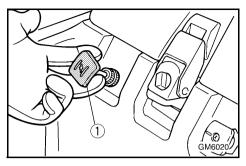
Insert the clip ①, on the end of the engine shut-off cord ②, under the engine shut-off switch ③ (black button). The engine will stop automatically when the clip is removed from the switch, such as if the operator falls off the watercraft.



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





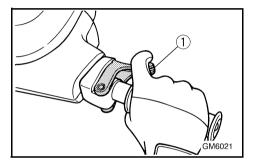


#### Choke knob

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

Pull the knob ① out to turn the choke on.

Push the knob in to turn the choke off.

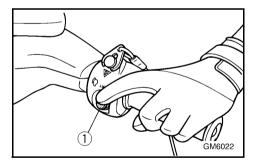


EJU01018

#### Throttle lever

Squeeze the throttle lever ① to increase engine speed.

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



EJU01019

#### Start switch

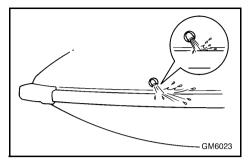
Push the start switch 1 (green button) to start the engine.

#### NOTE: \_

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







### Cooling water pilot outlet

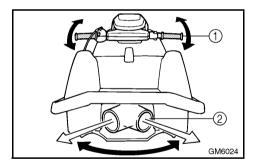
This watercraft is equipped with a cooling water pilot outlet.

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 2-9 and 5-3 for further instructions.)

#### 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.



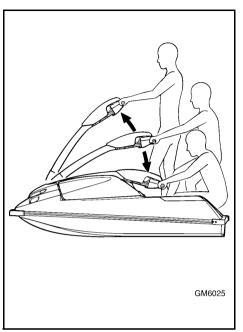
EJU0102

#### Steering system

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

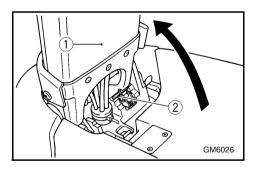
When the handlebars are turned, the angle of the jet thrust nozzle ② is changed, and the direction of the watercraft is changed accordingly. Since the strength of the jet thrust determines the speed and direction of a turn, the throttle must always be open when attempting a turn, except at trolling speed.





### Steering pole

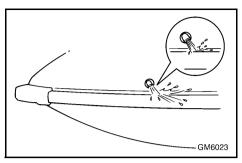
The steering pole varies in height with the operator's posture, enabling the operator to assume various riding positions.

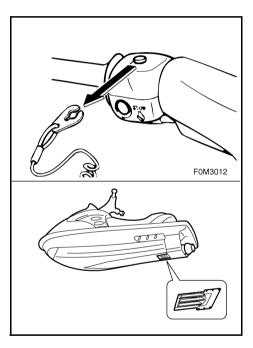


When removing the hood for pre-operation checks, maintenance, etc., lift the steering pole ① and use the lock pin ② to support it. Move the lock pin into the detent. Make sure the lock pin is returned to the stowed position after installing the hood.









## 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 3.400 r/min.

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

#### **▲**WARNING

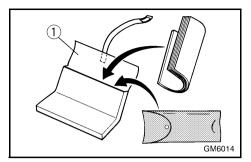
Before attempting to remove weeds or debris from the intake grate or impeller, shut the engine off and remove the clip from the engine shut-off switch. Severe injury or death could result from coming in contact with the rotating parts of the jet pump.

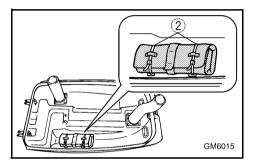
#### **CAUTION:**

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.









#### 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 ①, then add the tool kit and any other small items. Fold the pouch and tie it with the belt. Install the storage pouch on the hood and secure it with the bands ②.

#### NOTE:

The storage pouch is not waterproof. To keep the contents of the storage pouch dry, put them in a waterproof bag before putting them in the storage pouch.



## -МЕМО-





## **OPERATION**

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E II I01275

#### Fuel and oil

EJU20550

#### Gasoline

#### **AWARNING**

GASOLINE AND ITS VAPORS ARE HIGHLY FLAMMABLE AND EXPLOSIVE!

- Do not smoke when refueling, and keep away from sparks, flames, or other sources of ignition.
- Stop engine before refueling.
- Refuel in a well-ventilated area 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 filler cap securely after refueling.
- If you should swallow some gasoline, inhale a lot of gasoline vapor, or get gasoline in your eyes, get immediate medical attention.
- If any gasoline spills onto your skin, immediately wash with soap and water. Change clothing if gasoline spills on it.

#### CAUTION:

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





Recommended gasoline:

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

EJU01832

#### Gasohol

There are two types of gasohol: gasohol containing ethanol and that containing methanol.

Gasohol containing ethanol can be used if ethanol content does not exceed 10% and the fuel meets minimum octane ratings.

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

EJU10441

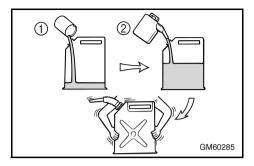
## 2-stroke engine oil

Recommended engine oil: YAMALUBE 2-W oil

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







FJU01276

### Mixing fuel and oil

#### **CAUTION:**

- Avoid using any mixture of gasoline and oil other than those designated.
- Make sure gasoline and oil are thoroughly mixed in the correct ratio, otherwise the following problems may occur. Too little oil in the fuel mixing ratio could result in major engine trouble, such as seizure. Too much oil in the fuel mixing ratio could result in fouled spark plugs, smoky exhaust, or heavy carbon deposits.

Pour 2-stroke engine oil ① into a clean container, and then add gasoline ②. To mix them thoroughly, shake the container from side to side.

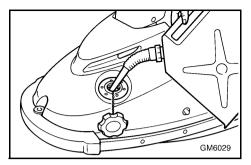
Fuel mixing ratios (gasoline to oil)

Break-in period

(first two tankfuls): 25 : 1 After break-in: 50 : 1







# Filling the fuel tank

### **CAUTION:**

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

- Lift the steering pole and support it with the lock pin.
- 2. Remove the hood.
- Open the fuel tank filler cap, and slowly add the premixed fuel to the fuel tank.
- 4. Stop filling when the fuel level just reaches the bottom of the filler tube.

### NOTE: \_

- The hood must be removed in order to watch the fuel level in the fuel tank while adding fuel.
- Be careful not to spill fuel or overfill the tank.
- Do not fill into the filler tube because fuel could overflow.

Fuel tank capacity:

Total: 18 L (4.8 US gal, 4.0 Imp gal)

Reserve: 5.5 L

(1.45 US gal, 1.21 Imp gal)



EJU01346

 $\mathbf{E}$ 

# **Pre-operation checks**

EJU01347

# **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.

### **AWARNING**

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

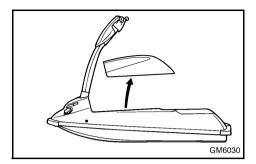
ITEM	ROUTINE	PAGE
Engine compartment	Remove the hood to ventilate the engine compartment. Check for fuel vapors and loose electrical connections.	3-6
Bilge	Check for water and fuel and remove if necessary.	3-8
Throttle lever	Check that the throttle lever springs back smoothly.	3-10
Steering system	Check for proper operation.	3-10
Fuel	Check fuel level and add if necessary. Check the hoses and tank for leakage.	3-7
Water separator	Check for water and drain if necessary.	3-7
Battery	Check electrolyte level and battery condition.	3-8
Hood	Check that the hood latches are properly secured.	2-3
Hull	Check the hull for cracks or other damage.	3-6
Jet unit	Check for debris and remove if necessary.	3-11
Fire extinguisher	Check condition and replace if necessary.	3-9
Engine shut-off cord	Check condition and replace if frayed or broken.	3-11
Switches	Check the start switch, engine stop switch, and engine shut-off switch for proper operation.	3-12
Cooling water pilot outlet	Check that water is discharged while the engine is running and the watercraft is in the water.	3-12

#### NOTE:

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







# **Pre-operation check points**

EJU01278

### **Engine compartment**

Ventilate the engine compartment, before each use. To ventilate the engine compartment, lift the steering pole and support it with the stopper pin, then remove the hood. Put the hood aside for a few minutes to allow any fuel vapors to escape. Also, check for loose electrical connections.

### **▲**WARNING

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

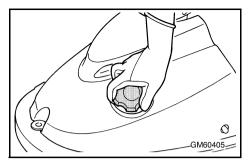
EJU20560

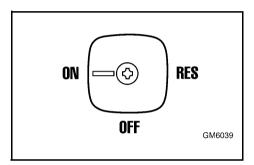
### Hull

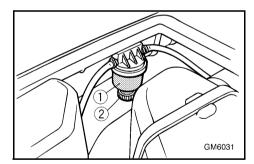
Check the hull for cracks or other damage. If any damage is found, have a Yamaha dealer repair the watercraft.











### Fuel system

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

- Remove the fuel tank filler cap to release any pressure that might have built up in the fuel tank.
- Remove the hood, and then check the fuel level in the tank. Replenish if necessary. (See page 3-4 for filling instructions.)
- 3. Close the fuel tank filler cap securely.

EJU19610

### Water separator

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

If water remains in the water separator, drain it by removing the drain screw ②. Place a drain pan under the water separator to catch the 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. Be sure to install the drain screw after draining the water separator.





EJU01280

### Bilge

Check for moisture and fuel residue in the bilge.

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

EJU19690

### **Battery**

Check the battery condition and the electrolyte level.

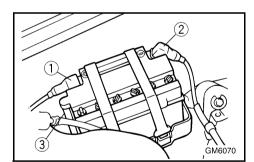
Check that the battery leads are tightened securely and there is no corrosion on the battery terminals.

### **▲**WARNING

- The battery must always be fully charged and in good condition. Loss of battery power may leave you stranded. Never operate the watercraft if the battery does not have sufficient power to start the engine or if it shows any other signs of decreased power.
- 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.

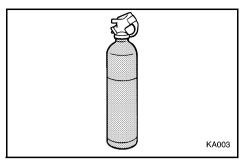
Make sure that the battery is securely held in place.

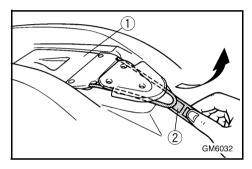
- 1) Positive (+): Red lead
- ② Negative (-): Black lead
- ③ Breather hose

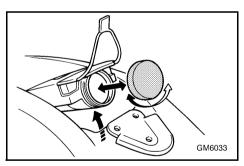












### Fire extinguisher

Check that there is a full fire extinguisher on board. The fire extinguisher container ① is on the hood under the steering pole.

### To open the fire extinguisher container:

- 1. Grasp the tab ②, pull the band to the rear, and then pull up.
- Lift the container about 30 degrees from the stored position.
- Remove the cap to reach the fire extinguisher.

### CAUTION:

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

### To close the fire extinguisher container:

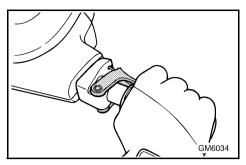
- Reinstall the cap and tighten it securely after inserting the fire extinguisher into the container.
- Reinstall the container on the hood and secure it with the band.

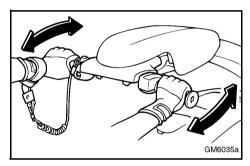
### NOTE: \_

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









F.II.I01834

### **Throttle**

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

### **▲**WARNING

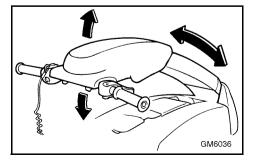
Before starting the engine, always check the operation of the throttle lever.

EJU01057

### Steering system

Check for looseness in the handlebars.

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



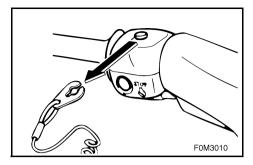
EJU01281

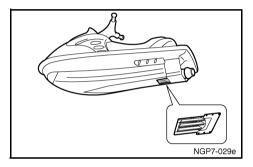
# Steering pole

Check for looseness in the steering pole. Move it up and down to make sure operation is smooth and unrestricted throughout the whole range. Make sure the steering pole does not have any side play.









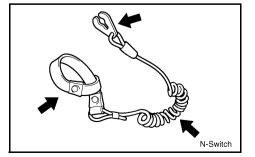
### Jet unit

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

In some cases, the engine may overheat because of lack of cooling water, and damage to the engine could result. Engine cooling water is fed to the engine by the jet pump. (See page 5-3 for jet intake cleaning procedures.)

### **AWARNING**

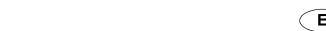
- Keep away from intake grate while engine is on. Items such as long hair, loose clothing, or PFD straps can become entangled in moving parts resulting in severe injury or drowning.
- Stop the engine and remove the clip from the engine shut-off switch before removing any debris or weeds, which may have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



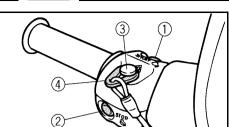
EJU01059

### Engine shut-off cord (lanyard)

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







GM6037a

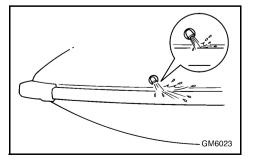
#### **Switches**

### CAUTION:

Do not run the engine of the watercraft for more than 15 seconds on land without supplying water, otherwise the engine may overheat.

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

Push the start switch ① to start the engine. As soon as the engine starts running, push the engine stop switch ② to verify that the engine stops immediately. Restart the engine, and then pull the engine shut-off cord ⑤ to remove the clip ④ from the engine shut-off switch ③ to verify that the engine stops immediately. (See pages 2-5 to 2-6 for information on proper operation of the start switch, the engine stop switch, and the engine shut-off switch.)



EJU01320

# Cooling water pilot outlet

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





F.II.I01283

# Operation

### **AWARNING**

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

EJU01284

# **Engine break-in**

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

### CAUTION:

- For the first 5 hours or 2 tankfuls of operation, premix fuel and oil in a 25:1 ratio.
- After break-in, premix fuel and oil in a 50:1 ratio for normal operation.
- 1. Launch the watercraft and start the engine, and then board the watercraft.
- 2. Run the engine at the lowest possible speed for 5 minutes.





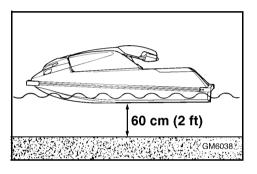
- 3. Gradually open the throttle lever to 3/4 or less.
- 4. Continue operation at 3/4 throttle or less until the first tankful of fuel has been used.
- 5. Fill the tank once more with a fuel-to-oil ratio of 25:1, and proceed with normal operation.

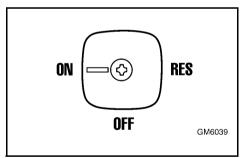
# **CAUTION:**

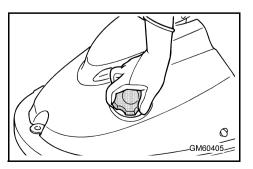
Failure to follow the engine break-in procedure properly can result in severe damage to the engine.











EJU01137

# Starting the engine

### **▲**WARNING

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

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

### **AWARNING**

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

### CAUTION:

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

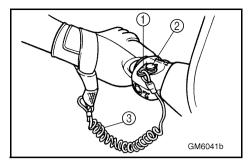
Turn the fuel cock knob to the "ON" position.

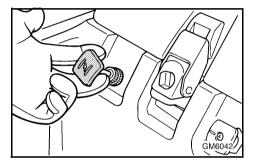
### NOTE: \_

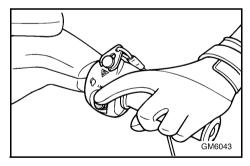
Before starting the watercraft, after it has been sitting, remove the fuel tank filler cap to release any built-up pressure in the tank due to fuel expansion.











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

### **AWARNING**

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

### NOTE: \_

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

4. Pull and hold the choke knob all the way out to start a cold engine.

### NOTE: \_

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

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

# **AWARNING**

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





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

# **CAUTION:**

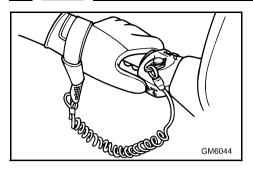
- Never push the start switch while the engine is running.
- Do not operate the start switch for more than 5 seconds, otherwise the battery will be discharged and the engine will not start. Also, the starter motor may be damaged. If the engine does not start in 5 seconds, release the start switch, wait 15 seconds, and try again.
- 7. After the engine has warmed up, push the choke knob in to its original position.

### NOTE: \_

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







EJU01066

# Stopping the engine

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

# **AWARNING**

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

EJU01067

# 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.





E II I01068

# Operating your watercraft

EJU01285

# 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 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 pages 1-6 to 1-12. 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.

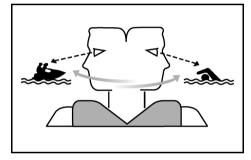
F.II.I01286

# Learning to operate your watercraft

Before operating, always perform the pre-operation checks listed on page 3-5. The short time spent checking the watercraft will reward you with added safety and reliability.

Check all local laws before operating your watercraft.

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



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

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

Wear a personal flotation device (PFD). All riders must wear a PFD that is approved by the appropriate authorities and suitable for personal watercraft use.





Wear protective clothing. Severe internal injuries can occur if water is forced into body cavities as a result of falling into water or being near the jet thrust nozzle. Normal swimwear does not adequately protect against forceful water entry into rectum or vagina. 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.

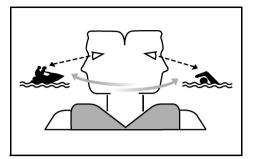
Footwear and gloves are recommended. Eye protection is recommended to keep wind, water, and glare from the sun out of your eyes while you operate your watercraft. Restraining straps for eyewear are made which are designed to float should your eyewear fall in the water.

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.

# **AWARNING**

- Do not apply throttle when others are at rear of watercraft—turn engine off or keep engine at idle. Water and/or debris exiting jet thrust nozzle can cause severe injury.
- 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.





F II I01287

# Starting the watercraft

### **AWARNING**

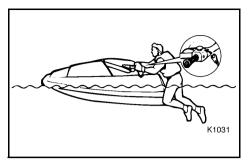
- Scan constantly for people, objects and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.
- Operate defensively at safe speeds and keep a safe distance away from people, objects and other watercraft.
- Do not follow directly behind watercraft or other 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.

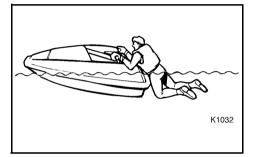
The watercraft is less stable when at a standstill or at slow speed. It takes skill to keep the watercraft upright when starting.

Even though it is easier to start in shallow water, you must learn deep-water boarding first. You will inevitably fall off, so be sure you know how to get back on the watercraft once you are away from shore.









EJU01378

# Boarding and starting in deep water

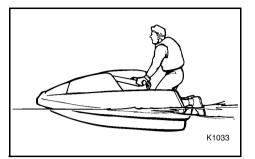
- Swim to the rear of the watercraft. Attach the engine shut-off cord to your wrist. Attach the clip to the engine shut-off switch.
- Grasp the handlebars with both hands. Pull your body up onto the riding tray and balance there, using your elbows on the gunwales for leverage.
- 3. Start the engine and begin to accelerate.
- Continue to pull your body up onto the watercraft as the watercraft speed increases.
- Bring your knees up onto the riding tray and change to a kneeling position as soon as you can do so.

### **AWARNING**

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.







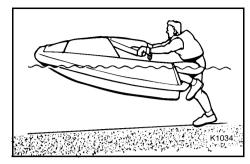
- Move as far forward as possible without interfering with the movement of the handlebars. Keep your body perpendicular to the water, with your weight forward and low.
- 7. Once the bow drops, and the watercraft has leveled out in the water and reached planing speed, back off the throttle lever and select your desired speed.

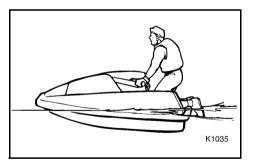
### NOTE: \_

- 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.









# 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. Do not try to start the watercraft in water less than 60 cm (2 ft) deep.

- 1. Launch the watercraft into water.
- Attach the engine shut-off cord to your wrist. Attach the clip to the engine shut-off switch.
- Grip the handlebars with both hands. Place one knee on the riding tray and balance there.
- 4. Start the engine and begin to accelerate.
- Pull your other knee up onto the riding tray as the watercraft speed increases.
- 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.





# Operating positions

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

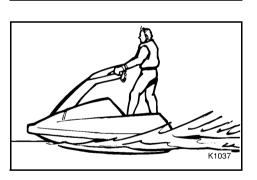


### Kneeling

It is easier to maintain your balance when kneeling than when standing. This position is suggested 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.



EJU01292

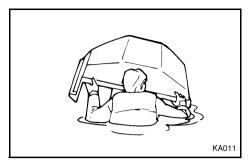
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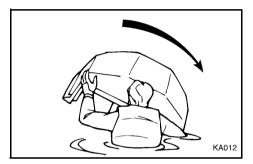
### Standing

After you are comfortable handling the watercraft from a kneeling position, try standing as the watercraft gains speed. Stability increases when you are traveling at planing speed. When you are moving slowly, or preparing to stop, you will probably need to return to the kneeling position to maintain your balance.









# **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.

### **AWARNING**

# IMPROPER UPRIGHTING CAN CAUSE INJURY:

- 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.

### 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 engine damage.

- 1. Shut the engine off by removing the clip from the engine shut-off switch.
- 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.

### **CAUTION:**

Do not turn the watercraft over counterclockwise, otherwise water can leak into the carburetor and engine, which can result in severe damage.



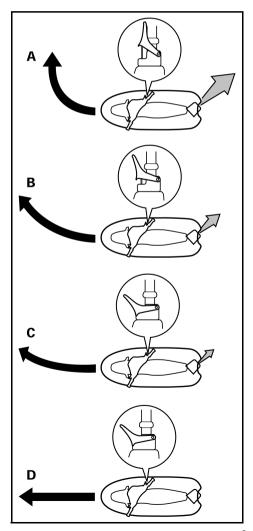


 Start the engine and operate the watercraft to discharge any water remaining in the engine compartment. (If the engine does not start, see page 5-6, "Towing the watercraft" or page 5-7, "Submerged watercraft.")

### 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.





# Turning the watercraft

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

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

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

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

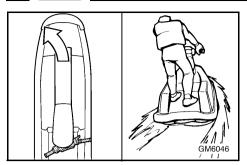
At trolling speed, the watercraft can be turned gradually by handlebar position alone using just the amount of thrust available at idle.

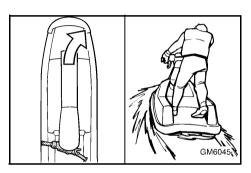
D. If the engine is stopped while riding, there is no thrust. The watercraft will go straight even though the handlebars are turned.

You need throttle to steer.









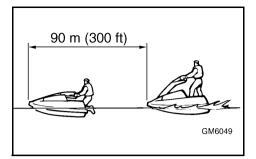
To maintain your balance, lean into a turn. How much you lean depends on the tightness of the turn and your traveling speed. In general, the higher the speed or the sharper the turn, the more you lean.

# **AWARNING**

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







E II I01080

# 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 is released and the engine is stopped, although this distance will vary depending on many factors, including gross weight, water surface conditions, and wind direction. The watercraft slows down as soon as the throttle lever is released, but will coast for a distance before fully stopping. If you are not sure you can stop in time before hitting an obstacle, apply throttle and turn in another direction.

### **AWARNING**

- 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.





# Beaching the watercraft

- Make sure no obstructions, boats or swimmers are near the beach. Release the throttle lever about 90 m (300 ft) before you reach the intended beaching area.
- Approach the beach slowly and stop the engine before reaching land.
   Remember: you need throttle to steer.
- 3. Get off the watercraft and pull it up on the beach.

### CAUTION:

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

EJU01295

# 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 body or handlebars and be injured. Do not operate the watercraft with your chin right above the handlebars or with your feet outside the watercraft. Operating in rough water or jumping waves can also crack the watercraft body or damage internal parts. Avoid operating in rough water or bad weather conditions.





F II I01894

# Post-operation checks

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

- 1. Remove the watercraft from the water.
- 2. Wash down the hull, steering pole, handlebars, and jet unit with fresh water.
- 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 water completely.

### **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.

- Put the watercraft in a horizontal position.
- Flush the cooling system to prevent it from clogging with salt, sand, or dirt. (See page 4-1 for flushing the cooling system procedures.)
- 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.





### CAUTION:

Do not run the engine at full throttle or for more than 15 seconds on land, otherwise the engine may overheat and seize.

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

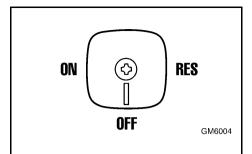
# **CAUTION:**

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

- 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 reinstalling the hood.





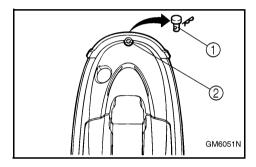




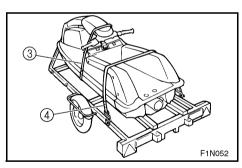
# **Transporting**

### **AWARNING**

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



Transport this watercraft using the special trailer that incorporates a hole into which the pin ① can be inserted and locked after passing it through the rope hole ②.



After securing the bow with the pin, secure the stern with ropes or tie downs ④ over the gunwale. Use a rubber shock cord ③ to hold the steering pole.

### **CAUTION:**

- Do not route ropes or tie downs over the steering pole, as they may 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 steering pole up, or the steering pole may be damaged during transportation.



# -МЕМО-





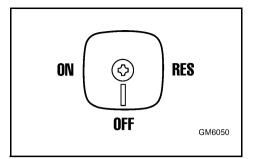


# MAINTENANCE AND CARE

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EJU01087

# **Storage**

### **AWARNING**

Always place the fuel cock knob in the "OFF" position when storing the water-craft, otherwise fuel could leak out into the engine or engine compartment, which would create a fire hazard.

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

EJU10881

# Flushing the cooling system

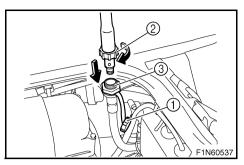
Flushing the cooling system is essential to prevent the cooling system from being clogged with salt, sand, or dirt.

### **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 of the watercraft for more than 15 seconds without supplying water, otherwise the engine may overheat.







- 1. Put the watercraft on land in a horizontal position.
- Open the flushing hose connector cap ①, and then insert the garden hose adapter ② into the flushing hose connector ③ and turn it until it is securely connected.
- 3. Connect the garden hose adapter to a water tap using a hose.
- Start the engine, and then immediately turn the water supply on until water flows out continually from the cooling water pilot outlet.
- 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.
- Turn the water supply off, and then force the remaining water out from the cooling passages by alternately squeezing, and releasing the throttle lever for 10 to 15 seconds.
- 7. Stop the engine.
- 8. Remove the garden hose adapter and secure the cap.





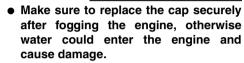
F II IN1200

### Lubrication

### **AWARNING**

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.



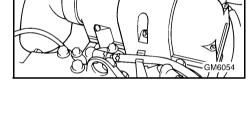


- Do not attempt to run the engine at full throttle or for more than 15 seconds while the watercraft is out of the water, otherwise the engine may overheat and/or seize.
- 1. Open the silencer cap ① on the silencer.
- 2. Start the engine with the watercraft in a well-ventilated area.
- With the engine 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 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.

Lubricate the areas of the watercraft specified under Lubrication points on page 4-14.



1)



F II 119640

#### Fuel system

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

#### **AWARNING**

## GASOLINE AND ITS VAPORS ARE HIGHLY FLAMMABLE AND EXPLOSIVE!

- Do not smoke when refueling, and keep away from sparks, flames, or other sources of ignition.
- Stop engine before refueling.
- Refuel in a well-ventilated area 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 filler cap securely after refueling.
- If you should swallow some gasoline, inhale a lot of gasoline vapor, or get gasoline in your eyes, get immediate medical attention.
- If any gasoline spills onto your skin, immediately wash with soap and water. Change clothing if gasoline spills on it.





#### To drain the fuel system:

- Place the fuel cock knob in the "OFF" position.
- 2. Drain the fuel tank using a siphon.

FJU19700

#### **Battery**

If the watercraft will not be used for more than a month, disconnect the negative (-) lead first, then the positive (+) lead and breather hose, and then remove the battery from the watercraft.

Clean the battery casing using fresh water.

If the battery terminals are dirty or corroded, clean them with a wire brush.

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

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

Check the battery at least every 2 months and fully charge it if necessary.

#### **AWARNING**

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.

#### **CAUTION:**

The battery may not be usable again if you store it for a long period without charging it. Charge the battery periodically.





#### NOTE: \_

The condition of the battery can be known by checking the specific gravity of the electrolyte. However, you can also know the condition of the battery by measuring 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 to 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.

EJU01300

#### Cleaning the watercraft

Clean the watercraft before storing it for a long period.

- 1. Wash down the hull, handlebars, and drive unit with fresh water.
- Rinse the engine and bilge area with fresh water. Drain off all water and wipe up remaining moisture with clean, dry rags.
- 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.
- Do not use protectant on the riding tray, because it will make it slippery.

E



F.II.I01094

# Maintenance and adjustments

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

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

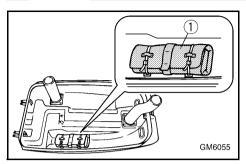
Remember that failures that are the result of the installation of parts or accessories which are not qualitatively equivalent to genuine Yamaha parts are not covered by the limited warranty.

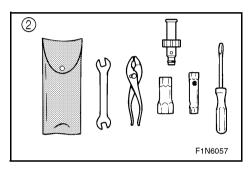
#### **▲**WARNING

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









## Owner's/Operator's Manual and tool kit

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

#### NOTE:

To protect these materials from water damage, it would be a good idea to put them in a waterproof bag.

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 ② are sufficient for this purpose, except that a torque wrench may also be necessary to tighten nuts and bolts.



#### Periodic maintenance chart

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

- ( ) This mark indicates maintenance that you may do yourself.
- (O) This mark indicates work to be done by a Yamaha dealer.

MAINTENANCE INTERVAL		INITIAL			THEREAF- TER EVERY		PAGE
		10 hours	50 hours	100 hours	100 hours	200 hours	
ITEM			6 months	12 months	12 months	24 months	
Spark plug	Inspect, clean, adjust	•	•	•	•		4-13
Lubrication points	Lubricate			•	•		4-14
Intermediate housing	Lubricate	O*1		●*2	●*2		4-16
Fuel system	Inspect			О	О		4-10
Fuel filter	Inspect, clean, replace	0				0	4-11
Fuel tank	Inspect, clean					О	4-11
Carburetor setting	Inspect, adjust	0		О	О		4-19
Trolling speed	Inspect, adjust			•	•		4-19
Carburetor throttle shaft	Inspect			О	О		_
Cooling water passages	Flush	●*3					4-1
Bilge strainer	Clean			•	•		_
Impeller	Inspect			О	О		_
Jet thrust nozzle angle	Inspect, adjust			●/○	●/○		4-12
Steering pivot	Inspect	0		0	О		_
Steering friction	Inspect, adjust	•		•	•		4-20
Throttle cable	Inspect, adjust	0		0	О		4-12
Choke cable	Inspect, adjust			0	О		4-16
Battery	Inspect			О	0		4-17
Rubber coupling	Inspect					О	_
Engine mount	Inspect					О	_
Nuts and bolts	Inspect	О		О	0		

<sup>\*1:</sup> Grease quantity: 20.0–22.0 cm<sup>3</sup> (0.68–0.74 oz)

<sup>\*2:</sup> Grease quantity: 3.0–5.0 cm<sup>3</sup> (0.10–0.17 oz)

<sup>\*3:</sup> After every use



Ε



F.II.I01383

#### Inspecting the fuel system

#### **AWARNING**

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

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

#### Check:

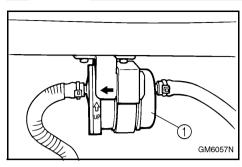
- Carburetor for leakage.
- Fuel pump for malfunction or leakage.
- Fuel tank for water or dirt.
- Fuel tank for damage, cracks or leakage.
- Fuel hose joint for leakage.
- Fuel hose for cracks or other damage.
- Fuel filter for leakage.
- Fuel cock for leakage.
- Air vent check valve for leakage.
-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

#### **AWARNING**

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







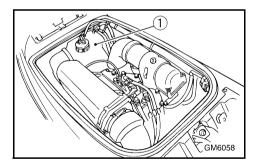
FJU01953

#### Fuel filter

This watercraft is equipped with a onepiece, disposable fuel filter ①. 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 filter. Have a Yamaha dealer replace the fuel filter if necessary.

#### **AWARNING**

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

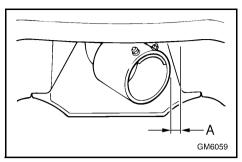


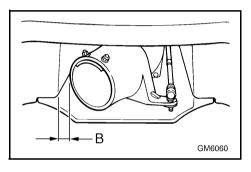
EJU01841

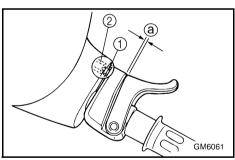
#### Fuel tank

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









FJU01891

# Inspecting the jet thrust nozzle angle

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

Turn the handlebars as far as possible to the right and left and check that the distance between the jet thrust nozzle and the hull are equal on right and left sides.

Distance A and B: A=B

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

EJU01375

## Inspecting and adjusting the throttle cable

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

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

Throttle lever free play: 7–10 mm (0.28–0.39 in)



F.II.13431

# Cleaning and adjusting the spark plugs

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

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

Standard spark plug: BR7HS

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

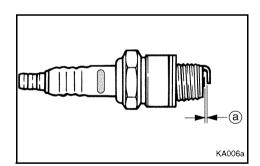
Spark plug gap: 0.6–0.7 mm (0.024–0.028 in)

#### To install the spark plug:

- Clean the gasket surface.
- 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 N·m (2.5 kgf·m, 18 ft·lb)

4. Install the spark plug cap.





#### NOTE:

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

#### **AWARNING**

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

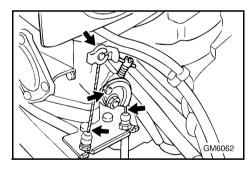


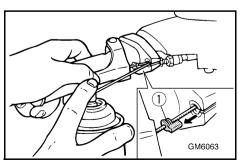
#### **Lubrication points**

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

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

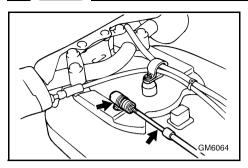
- Throttle cable (carburetor end)
- Choke cable (carburetor end)
- Throttle cable (handlebar end)
   Pull the throttle lever and remove the seal ①. Spray a rust inhibitor into the outer cable. Refit the seal securely.

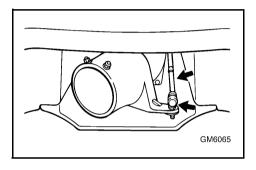


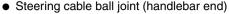








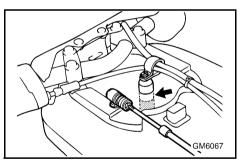




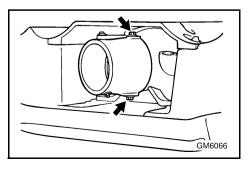
- Steering cable inner wire (handlebar end)
- To access the steering cable and joint, remove the handle cover by removing the two bolts.
- Grease the steering cable ball joints both on the handlebar end of the cable and on the jet thrust nozzle end.
- Extend the steering cable inner wire, and then apply a thin coat of grease to both the handlebar end and the jet thrust nozzle end.



• Steering cable inner wire (nozzle end)



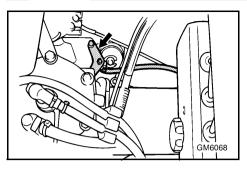
Steering handle pivot shaft
 Lubrication of the steering handle pivot shaft requires disassembly of steering components. Have a Yamaha dealer lubricate it.



Steering nozzle pivot bolts (collars)



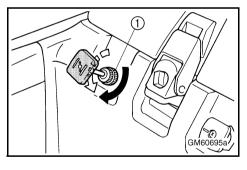




Intermediate housing
 Using a grease gun, fill the intermediate
 housing with water-resistant grease
 through the grease nipple.

Grease quantity:

Initial 10 hours or 1 month: 20.0–22.0 cm<sup>3</sup> (0.67–0.74 oz) Every 100 hours or 12 months: 3.0–5.0 cm<sup>3</sup> (0.10–0.33 oz)



EJU01261

#### Adjusting the choke cable

Check that the choke cable is properly adjusted.

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

E



FJU19710

#### Inspecting the battery

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

#### **AWARNING**

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

**Antidotes** 

External: Flush with water.

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

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

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

KEEP OUT OF THE REACH OF CHIL-DREN.

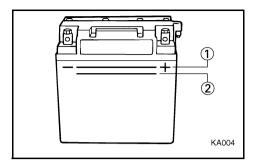
 Be sure to connect the breather hose to the battery. Fire or explosion could result if the breather hose is damaged, obstructed, or not connected properly.

#### **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:

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

#### CAUTION:

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

To recharge the battery:

#### **CAUTION:**

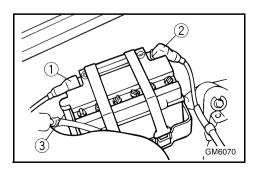
Do not attempt to charge a battery hastily. Battery life could be shortened.

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.

- 1. Remove all caps from the battery cell.
- Add distilled water to the specified level if the electrolyte level is low.
- 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 connect the battery terminals:

- Make sure that the connections are correct when you install the battery in the watercraft.
- Make sure that the breather hose is properly connected and that it is not damaged or obstructed.
- 3. Make sure that the battery is securely held in place.
- 1) Positive (+): Red lead
- ② Negative (-): Black lead
- ③ Breather hose







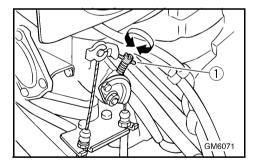
FJU01109

#### Adjusting the carburetor

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

#### **CAUTION:**

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



EJU01303

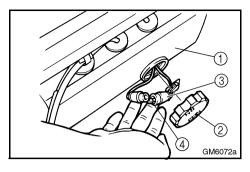
#### Adjusting the trolling speed

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

Trolling speed: 1,250-1,350 r/min







F.II.I01263

#### Replacing the fuse

The fuse is in the electrical box (1).

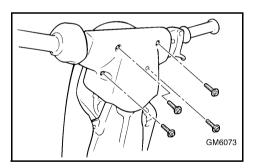
#### To replace the fuse:

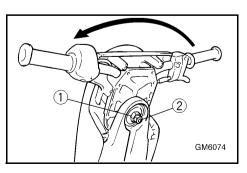
- Remove the cap ②, pull out the red lead, and bring the fuse holder ③ out of the electrical box.
- Open the fuse holder and replace the fuse 4 with one of the correct amperage.

Fuse amperage: 10 A

#### **AWARNING**

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





EJU01304

#### Adjusting the steering friction

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

#### To adjust the friction:

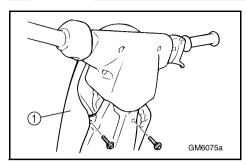
- 1. Loosen the four screws, and then remove the handlebar cover.
- 2. Turn the handlebars as far as possible to starboard (right).
- 3. Loosen the locknut (2).
- Tighten or loosen the adjusting nut ① until the desired amount of friction is reached.
- Hold the adjusting nut with one wrench while tightening the locknut with another wrench.

Tightening torque:

29 N·m (2.9 kgf·m, 21 ft·lb)



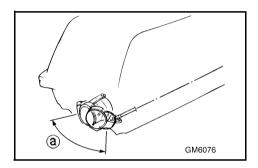




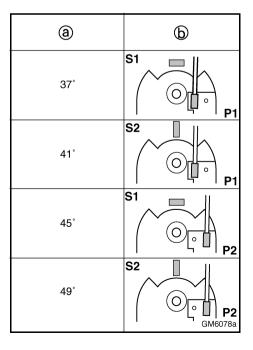
# Adjusting the jet thrust nozzle angle

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

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



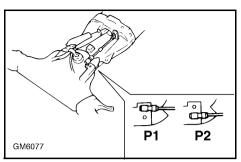
Select the desired nozzle angle (a).
 Changing the position of the handlebar stopper and/or steering cable pivot bolt changes the nozzle angle as shown in the following chart.

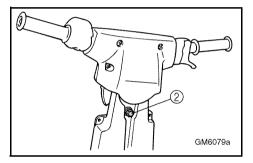


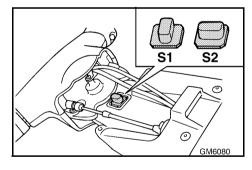
- a Nozzle angle
- Handle stopper and steering cable pivot bolt position











## To change the position for the steering cable pivot bolt:

- Pull back the outer sleeve, and then disconnect the steering cable.
- Remove the steering cable joint from the steering cable pivot bolt.
- Loosen the pivot bolt and install it with the lock washer in the desired position (P1 or P2). Make sure to tighten it to the specified torque.

#### Tightening torque:

5.4 N·m (0.5 kgf·m, 3.9 ft·lb)

4. Install the steering cable joint on the steering cable pivot bolt.

## To change the handlebar stopper position:

- Loosen the handle stopper nut ② on the operator's side of the steering pole.
- Lift and turn the handlebar stopper to the desired position (S1 or S2), and then tighten the handlebar stopper nut. Make sure to tighten it to the specified torque.

#### Tightening torque:

31 N·m (3.1 kgf·m, 22.4 ft·lb)

3. Install the steering pole cover securely.





## **Specifications**

MODEL		
ITEM	Unit	SJ700
WATERCRAFT CAPACITY		
Maximum people on board	Number of people	1
DIMENSIONS	· · · · · · · · · · · · · · · · · · ·	·
Length	mm (in)	2,240 (88.2)
Width	mm (in)	680 (26.8)
Height	mm (in)	660 (26.0)
Dry weight	kg (lb)	132 (291)
PERFORMANCE	<u> </u>	
Maximum power output	kW (PS) @ r/min	53.7 (73) @ 6,300
Maximum fuel consumption	L/h (US gal/h, Imp gal/h)	29 (7.7, 6.4)
Cruising range at full throttle	hr.	0.6
Trolling speed	r/min	1,250–1,350
ENGINE		
Engine type		2-stroke
Number of cylinders		2
Engine displacement	cm³ (cu in)	701 (42.78)
Bore & stroke	mm (in)	81 × 68 (3.19 × 2.68)
Compression ratio		7.2
Lubrication system		Pre-mixed fuel
Cooling system		Water cooled
Starting system		Electric starter
Ignition system		CDI
Spark plug		BR7HS (NGK)
Spark plug gap	mm (in)	0.6–0.7 (0.024–0.028)
Battery capacity	V-AH	12-19
Charging system		Flywheel magneto
DRIVE UNIT		
Propulsion system		Jet pump
Jet pump type		Axial flow, single stage
Impeller rotation		Counterclockwise (viewed from rear)
Transmission		Direct drive from engine
Jet thrust nozzle angle	Degree	37, 41, 45, 49
FUEL AND OIL		
Recommended fuel		Regular unleaded gasoline
Minimum octane rating	PON (*1)	86
	RON (*2)	90
Recommended engine oil		YAMALUBE 2-W, or an equivalent NMMA-
First minimum matic (first to 12)		certified TC-W3 marine oil
Fuel mixing ratio (fuel to oil)		50:1
Fuel tank capacity	L (LIC gol Imp col)	10 (4.0. 4.0)
Total	L (US gal, Imp gal)	18 (4.8, 4.0)
Reserve	L (US gal, Imp gal)	5.5 (1.45, 1.21)

<sup>\*1:</sup> Pump Octane Number

<sup>\*2:</sup> Research Octane Number





# TROUBLESHOOTING AND EMERGENCY PROCEDURES

Troubleshooting	5-1
Troubleshooting chart	5-1
Emergency procedures	5-3
Cleaning the jet intake and impeller	5-3
Jumping the battery	5-4
Towing the watercraft	5-6
Submerged watercraft	5-7





#### **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.

EJU01367

#### **Troubleshooting chart**

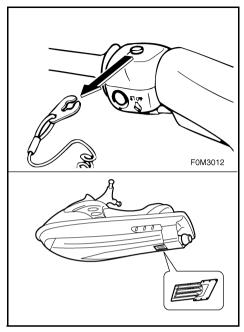
TROUBLE	POSS	SIBLE CAUSE	REMEDY	PAGE		
Engine does not	Starter motor does not turn over					
start	Engine shut- off switch	Clip not in place	Install clip	2-5		
	Fuse	Burned out	Replace fuse and check wiring	4-20		
	Battery	Run down	Recharge	4-17		
		Poor terminal connections	Tighten as required	4-17		
	Starter motor	Faulty	Have serviced by Yamaha dealer	_		
	Starter motor	Starter motor turns over				
	Fuel cock	Turned to "OFF"	Turn fuel cock knob to "ON"	2-4		
	Fuel	Empty	Refill as soon as possible	3-4		
		Stale or contaminated	Have serviced by Yamaha dealer	4-10		
	Fuel tank	Water or dirt present	Have serviced by Yamaha dealer	4-11		
	Spark plug	Fouled or defective	Clean or replace	4-13		
	Spark plug cap	Not connected or loose	Connect properly	4-13		
	Crankcase	Filled with water	Crank engine with plug out until clean	5-7		
	Fuel filter	Clogged or water pooled	Have serviced by Yamaha dealer	4-11		
	Choke	Knob moves back on its own	Tighten choke knob adjusting nut	4-16		

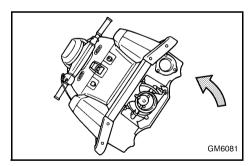




TROUBLE	POSS	SIBLE CAUSE	REMEDY	PAGE
Engine runs irregularly or stalls	Fuel	Empty	Refill as soon as possible	3-4
		Stale or contaminated	Have serviced by Yamaha dealer	4-10
		Too much oil in fuel mixing ratio	Correct fuel-to-oil ratio to 50:1	3-3
	Choke	Knob is left pulled	Push fully in	2-6
	Fuel filter	Clogged or water pooled	Have serviced by Yamaha dealer	4-11
	Fuel tank	Water or dirt present	Have serviced by Yamaha dealer	4-11
	Spark plug	Fouled or defective	Replace	4-13
		Incorrect heat range	Replace	4-13
		Gap incorrect	Adjust	4-13
	Spark plug cap	Loose	Connect properly	4-13
		Cracked, torn or damaged	Replace	4-13
	Electrical wir- ing	Loose electrical con- nections	Tighten or connect properly	_
	Carburetor	Incorrect idle adjust- ment	Adjust idle	4-19
		Clogged	Have serviced by Yamaha dealer	4-19
Watercraft slow or	Cavitation	Jet intake clogged	Clean	5-3
loses power		Impeller damaged or worn	Have serviced by Yamaha dealer	5-3
	Engine over- heated	Jet intake clogged	Clean	5-3
	Fuel filter	Clogged	Have serviced by Yamaha dealer	4-11
	Spark plug	Fouled or defective	Replace	4-13
		Incorrect heat range	Replace	4-13
		Gap incorrect	Adjust	4-13
	Spark plug caps	Loose	Connect properly	4-13
	Fuel	Stale or contaminated	Have serviced by Yamaha dealer	4-10







FJU01118

#### **Emergency procedures**

EJU01119

## Cleaning the jet intake and impeller

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

#### **AWARNING**

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

1. Turn the watercraft on its side as shown.

#### CAUTION:

- Place a suitable clean cloth or carpeting underneath the watercraft to protect it from abrasions and scratches.
- Always turn the watercraft over onto its port (left) side.
- When turning the watercraft on its side, support the bow so the handlebars cannot be bent or damaged.
- Remove any weeds or debris from around the drive shaft, impeller, pump housing, and jet thrust nozzle.
  - If debris is difficult to remove, consult your Yamaha dealer.



#### **CAUTION:**

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

EJU01844

#### Jumping the battery

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

#### **AWARNING**

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

**Antidates** 

External: Flush with water.

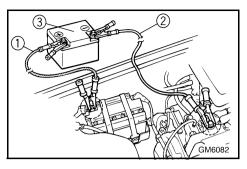
Internal: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call physician immediately.

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

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

KEEP OUT OF THE REACH OF CHIL-DREN.





FJU01882

#### Connecting the jumper cables

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

#### **CAUTION:**

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

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

#### CAUTION:

- Never push the start switch while the engine is running.
- Do not operate the start switch for more than 5 seconds, otherwise the battery will be discharged and the engine will not start. Also, the starter motor may be damaged. If the engine does not start in 5 seconds, release the start switch, wait 15 seconds, and try again.





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

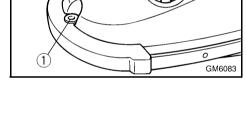
If the watercraft must be towed in an emergency using a tow line, the operator should ride the watercraft, holding onto the handlebars and supporting his body weight on the riding tray. This will help keep the bow of the watercraft out of the water.



- 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 rope hole ① only.
- The bow must be kept up out of the water during towing to prevent water from entering the engine compartment.



- 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 operator on the watercraft.



F.II.I01903

#### Submerged watercraft

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

#### In an emergency:

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

#### 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."
- Remove the spark plugs and dry them with a cloth.
- Without reinstalling the spark plugs, crank the engine until all water in the cylinders has been drained.
- 6. Install the spark plugs and the hood.
- 7. Turn the fuel cock knob to "ON."
- 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. Turn 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.





## **APPENDIX**

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EJU01125

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Printed in Japan May. 2004—0.8 × 1 CR **F1N-28199-73** (E)