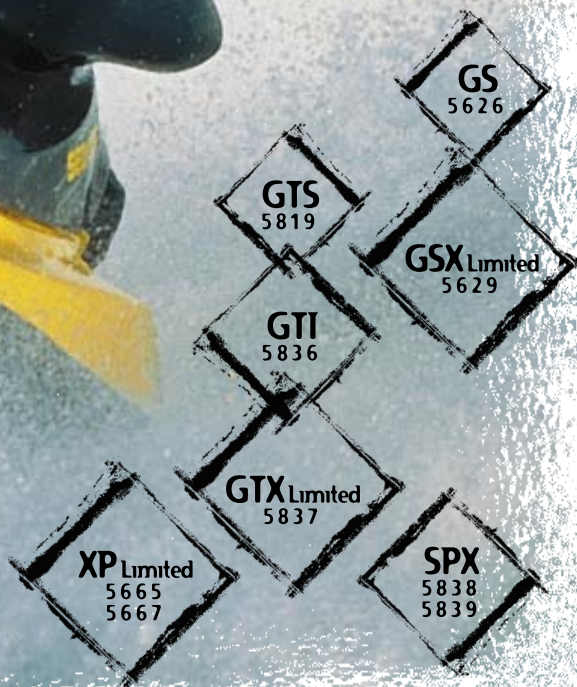


# SEA-DOO®



## Operator's GUIDE

# 1998



◆ **SAFETY WARNING**

Disregarding any of the safety precautions and instructions contained in this *Operator's Guide*, the *Safety Handbook* and on *Product Warning Labels* could cause injury, including the possibility of death.

This *Operator's Guide*, the *Safety Handbook* and *Videocassette* should remain with the watercraft at the time of resale.

AFTER-SALES SERVICE  
BOMBARDIER INC.  
VALCOURT, QC  
CANADA J0E 2L0



**The following trademarks are property of  
Bombardier Inc.:**

SEA-DOO®  
Bombardier Lube®  
Sea-Doo Jet Pump Synthetic Oil  
Sea-Doo Synthetic Grease

## **Doin'it on your new Sea-Doo Watercraft**

Congratulations, you are now the proud owner of a Sea-Doo personal watercraft. Whether you are an experienced boater or are new to the sport of boating, we ask you to take the time to view the *Videocassette* provided with the watercraft, to read this *Operator's Guide*, the *Safety Handbook* and familiarize yourself with the contents. These Guides contain pertinent information which, if followed, will provide you with the necessary knowledge to help you fully enjoy the pleasures of this craft.

We strongly recommend that any watercraft operator complete a safety boating course. Check with your local Coast Guard or Power and Sail Squadron in your area for course availability. More serious boaters may want to obtain *Chapman Piloting* by Elbert S. Maloney, available at most book stores.

When introducing your family or friends to the sport, be sure they fully understand the controls and operation of the watercraft and the importance of courteous, responsible riding.

Each operator has a responsibility to ensure the passenger safety and the safety of other water users. Please follow all safety instructions and drive with care.


We encourage you to have an Annual Safety Inspection of your watercraft. Please contact your dealer for further details.

Finally, we urge you to visit your dealer regularly for regular and safety maintenance as well as any watercraft accessories you may require.

Have fun and... Bon Voyage.

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# FOREWORD

The *Operator's Guide* and *Safety Handbook* have been prepared to acquaint the owner/operator or passenger with this personal watercraft and its various controls, maintenance and safe riding instructions. Each is indispensable for the proper use of the product, and should be kept in a waterproof bag with the watercraft at all times.

For any questions pertaining to the warranty and its application, consult the WARRANTY section in this Guide, or an authorized SEA-DOO dealer.

This Guide uses the following symbols to emphasize particular information.



## WARNING

Identifies an instruction which, if not followed, might cause serious personal injuries including the possibility of death.



## CAUTION

Denotes an instruction which, if not followed, might damage the watercraft and/or components.

**NOTE:** Indicates supplementary information needed to fully complete an instruction.

Although the mere reading of such information does not eliminate the hazard, the understanding and application of the information will promote its correct use.

The information and components/system descriptions contained in this Guide are correct at the time of publication. Bombardier Inc. however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured.

Bombardier Inc. reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations show the typical construction of the different assemblies and may not represent the full detail or exact shape of the parts which have the same or a similar function.

Specifications are given in the SI metric system with the SAE U.S. equivalent in parenthesis. Where precise accuracy is not required, some conversions are rounded off for easier use.

A *Shop Manual* can be obtained for complete service, maintenance and more repair information.

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## ◆ SAFETY WARNING

To fully appreciate the pleasures, enjoyment and excitement of boating there are some basic rules that **MUST** be observed and followed by any boater. Some rules may be new to you while others may be common sense or obvious, irrespective, we ask that you please take a few minutes of your time to read these safety instructions completely before you operate your craft. Failure to follow this safety information and safe boating rules could result in injury, including the possibility of death to you, your passenger(s), or other water users.

Information in this Guide is limited. It is strongly recommended that you obtain further boating information from the local Coast Guard or Power Squadron. We further recommend you take a boating safety course. Check local and federal boating laws applicable to the waterways where you intend to use the craft. Learn the local rules of the road.

Become completely familiar with the controls and operation of the craft before taking on a passenger(s) or embarking on a trip. If you have not had the opportunity to do so with your dealer, practice driving solo in a suitable area and feel the response of each control. Be fully familiar with all controls before fully advancing the throttle.

The performance of this craft may significantly exceed that of other craft you may have operated. Therefore, use of this craft by a novice or inexperienced operator is not recommended.

Observe and follow all on-product warning labels and the content of this Guide.

Always use spark plug cable grounding device when removing spark plugs.

Operator and passenger(s) should wear suitable body protection, as well as deck shoes or booties. Long hair or loose clothes should be securely attached to prevent snagging in the water intake.

Coast Guard approved personal flotation devices (PFD) must be worn when riding the watercraft.

Operation of this craft by a minor or disabled person is **NOT** recommended.

Do not operate the craft after consuming alcohol or drugs.

Always perform the pre-operation checks as specified in this Guide. This includes:

- Attaching the safety lanyard.
- Verification of throttle lever and steering movement.
- Verification of start/stop button operation.
- Oil and fuel levels.
- Adequate water depth.
- Required boating equipment. (Know how to use each).

The operator and passenger(s) must be properly seated before starting or moving the craft.

Wave or wake jumping can be dangerous and in many regions illegal.

Most boating accidents result from the failure of the operator to keep a lookout for other water users or other potential hazards. Keep a safe distance from other boats. Do not attempt to splash others with your wake. Do not ride on the surf line.

To prevent accidental starting or unauthorized use, always detach the safety lanyard from the boat, especially during maintenance, cleaning of the intake grate, or when swimmers are nearby.

Ensure that all passengers know how to reboard the craft from the water.

Always have an observer while towing a skier.

Know the waters in which the craft is to be operated. Current, tides, rapids, shallow water, hidden obstacles etc., can affect safe operation.

When boating, apply the principle of 1/3 fuel to destination, 1/3 back and 1/3 reserve fuel supply.

Maintain the craft and equipment in top condition at all times. Adhere to the prescribed maintenance schedules.

The bilge must be kept clean of oil, water or other foreign materials. Do not carry spare fuel and inflammable liquids in any of the storage or engine compartments.

Avoid adding on accessories, carrying equipment or passengers which may alter the craft's configuration or balance.

Only perform servicing procedures which are detailed in this Guide. Further assistance or information can be obtained from your dealer. In many instances proper tools and training is required for certain servicing or repair procedures.

Gasoline fumes are inflammable and explosive. Always adhere to the fueling procedure contained in this Guide and those given to you by the marina.

Always keep in mind that as the throttle lever is released to idle position, less directional control is available. To turn the craft, both steering and throttle are necessary. This craft has the capability of turning more sharply than other boats, however, unless in an emergency, do not negotiate sharp, high speed turns.

Like any other boat, this craft has no brake. Stopping distance will vary depending on initial speed, load, wind, and water conditions. Practice stopping and docking in a safe area to have an idea of how long it will take to stop the craft under varying conditions.

Prolonged exposure to the sun, wind, etc., causes fatigue and may affect your reaction time.

Do not overload the craft or take on more passengers than designated for the intended type of boating. Load and altitude will also affect craft performance.

Riding with a passenger(s) makes the craft handle differently and requires greater skill.

Proceed with caution and at very low speeds in shallow water. Grounding or abrupt stops may result, or debris may be picked up and be jettisoned rearward to people or property.

As the "skipper" of a boat you are responsible for damage to other boats caused by the wake of your craft. Respect no wake zones.

Respect the rights of other water users and the environment. Allow no one to throw refuse overboard.

Do not operate the craft in inclement weather.

This watercraft is not designed for night-time operation.

Lifting the craft requires special equipment and experience. Do not attempt to lift the craft without such experience or equipment.

Respect the safety and comfort of your passenger(s) and persons being towed on skis or other water toys.

Always carry the regulatory required safety items on board. Check with local regulations or your dealer.



Due to the close proximity of other racers, it is recommended that an approved personal watercraft helmet be used during racing events. Read and follow all instructions and warnings provided with the helmet.

The engine and the corresponding components identified in this guide should not be utilized on product(s) other than those they were designed for. Maintenance procedures and specified tightening torques must be strictly adhered to. Never attempt repairs unless the appropriate tools are available. These watercraft are designed with parts dimensioned in both the metric and the imperial systems. When replacing fasteners, make sure to use only those recommended by Bombardier.

Ride prudently and have fun.

---

# LIST OF DISTRIBUTORS

## NORTH AMERICA

<b>U.S.A.</b> (Except Puerto Rico)	<b>BOMBARDIER MOTOR CORPORATION OF AMERICA</b> 7575 BOMBARDIER COURT P.O. BOX 8035 WAUSAU, WI 54402-8035 Phone: (715) 842-8886
<b>CANADA</b> Alberta British Columbia Manitoba North West Territories Ontario Quebec Saskatchewan Yukon New-Brunswick Nova Scotia Prince Edward Island	<b>BOMBARDIER INC.</b> SEA-DOO SERVICE DEPARTMENT VALCOURT, QC JOE 2LO PHONE: (514) 532-2211
Newfoundland	<b>CHARLES R. BELL</b> P.O. BOX 1050 RIVERSIDE DRIVE CORNER BROOKE, NFLD A2H 6J3 Phone: (709) 634-3533 FAX: (709) 634-2444

If your SEA-DOO requires warranty service, you must take it to any authorized SEA-DOO dealer. Be sure to bring your warranty registration card or other valid proof of the original date of purchase. If a question or problem arises regarding warranty, first contact the service manager or owner of the SEA-DOO dealership.

To find the nearest authorized Sea-Doo dealer, dial: 1-800-882-2900.

**NOTE:** If outside North America, consult the local distributor.

---

# **BOMBARDIER LIMITED WARRANTY: 1998 SEA-DOO® WATERCRAFT**

## **1. WARRANTY COVERAGE PERIOD**

BOMBARDIER INC. ("Bombardier"), as manufacturer, warrants FROM THE DATE OF DELIVERY TO THE FIRST CONSUMER that each 1998 SEA-DOO watercraft sold, as NEW and UNUSED and PREDELIVERED by an authorized North American SEA-DOO watercraft dealer, will be free from any defects in material and/or workmanship for a PERIOD of:

TWELVE (12) CONSECUTIVE MONTHS, for private use owners, or

FOUR (4) CONSECUTIVE MONTHS for commercial use owners.

All genuine Bombardier accessories, installed by an authorized SEA-DOO **watercraft** dealer at the time of delivery of the new and unused SEA-DOO **watercraft**, carry the same Warranty Coverage Period as for the SEA-DOO watercraft.

## **2. WHAT BOMBARDIER WILL DO**

BOMBARDIER will repair or replace, at its option, all genuine BOMBARDIER parts found defective in material and/or workmanship, under normal use, maintenance and service, with a genuine BOMBARDIER part without charge for parts and labor, at any authorized SEA-DOO **watercraft** dealer during the Warranty Coverage Period.

## **3. CONDITION TO HAVE WARRANTY WORK VALIDATED**

The customer must notify an authorized SEA-DOO watercraft dealer within two (2) days of the appearance of the defect in material and/or workmanship and present to the servicing authorized SEA-DOO **watercraft** dealer the SEA-DOO Warranty Registration Card or a proof of purchase of the NEW and UNUSED 1998 SEA-DOO watercraft and must sign the repair/work order prior to the start of the repair in order to validate a warranty repair. All parts replaced under this limited warranty become the property of BOMBARDIER.

## **4. EXCLUSIONS - ARE NOT WARRANTED**

- Normal wear and tear items;
- Labor, parts and lubricant costs of all maintenance services;
- Damage caused by failure to provide proper maintenance and/or storage, as described in the "1998 SEA-DOO watercraft Operator's Guide";
- Damage resulting from improper repairs, modifications or use of non-approved parts or, repairs done by a non-authorized SEA-DOO **watercraft** dealer;
- Damage resulting from abuse, misuse, neglect, racing;
- Damage resulting from accident, fire, theft, vandalism or any act of God;
- Incidental or consequential damages, or damages of any kind such as but not limited to towing charges, telephone calls or taxi;
- Water damages caused by water ingestion;
- Damage related to gel coat finish including but not limited to cosmetic gel coat finish, blisters or fiberglass delamination caused by blisters, crazing, spider or hairline cracks; and
- Damages resulting from improper service or maintenance.

## 5. LIMITATIONS OF LIABILITY

This warranty gives you specific rights, and you may also have other legal rights which may vary from state to state, or province to province. **WHERE APPLICABLE, THIS WARRANTY IS EXPRESSLY GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.**

Neither the distributor, any authorized SEA-DOO watercraft dealer nor any other person has been authorized to make any affirmation, representation or warranty other than those contained in this warranty, and if made, such affirmation, representation or warranty shall not be enforceable against BOMBARDIER or any other person.

In no event shall BOMBARDIER be liable for special, consequential or incidental damages, including but not limited to loss of use and transportation costs. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply.

BOMBARDIER reserves the right to modify this warranty at any time, being understood that such modification will not alter the warranty conditions applicable to the SEA-DOO watercraft sold while this warranty is in effect.

## 6. CONSUMER ASSISTANCE

- a) In the event of a controversy or a dispute arising in connection with this BOMBARDIER LIMITED WARRANTY, BOMBARDIER suggests that you try to resolve the issue at the dealership level. We recommend discussing the issue with the authorized dealer's service manager or owner.
- b) If further assistance is required, the DISTRIBUTOR's service department should be contacted in order to resolve the matter.
- c) If the issue has still not been resolved, please submit in writing your complaint to:

### In Canada:

BOMBARDIER INC.  
SEA-DOO/SKI-DOO DIVISION  
CUSTOMER ASSISTANCE CENTER  
VALCOURT QC J0E 2L0  
Tel: (514) 532 5000

### In USA:

BOMBARDIER MOTOR  
CORPORATION OF AMERICA  
SEA-DOO/SKI-DOO DIVISION  
CUSTOMER ASSISTANCE CENTER  
P.O. BOX 8035  
7575 BOMBARDIER COURT  
WAUSAU WI 54402 8035  
Tel: (715) 848 4957

BOMBARDIER INC.  
SEA-DOO/SKI-DOO DIVISION  
JANUARY 1997

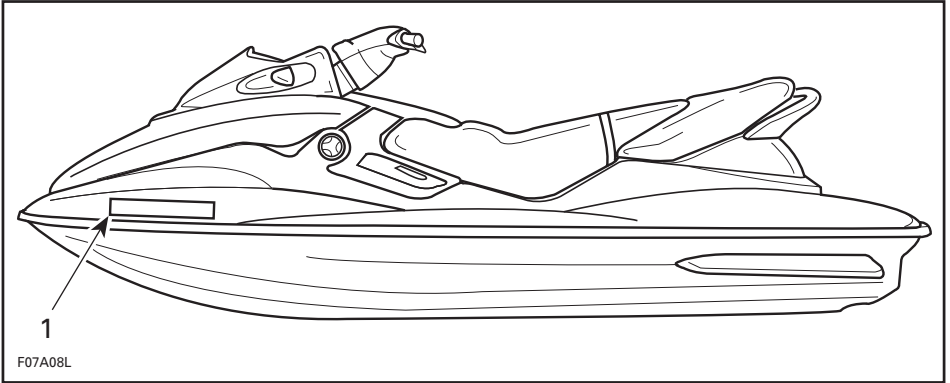
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# REGISTRATION NUMBER LOCATION

All personal watercraft are required by federal law to be registered and legally numbered.

Due to space availability for proper display of registration number, refer to following illustration for location. The registration number must appear on each side of the watercraft.



**TYPICAL**

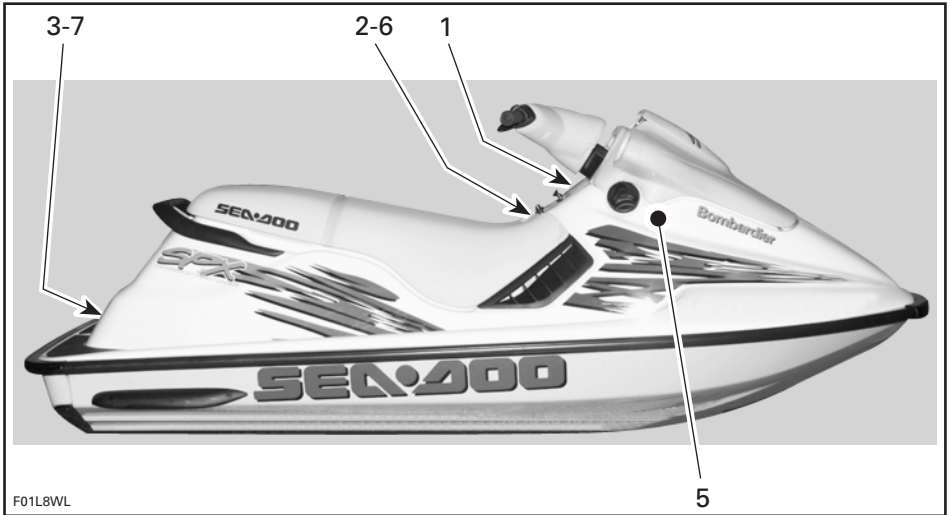
1. Registration number location

**NOTE:** The registration number must be above the water line. Ensure also that the numbers are of the correct size and color. Check with local regulations.

---

## LOCATION OF THE IMPORTANT LABELS

Please read the following labels carefully before operating this watercraft.



SPX MODEL



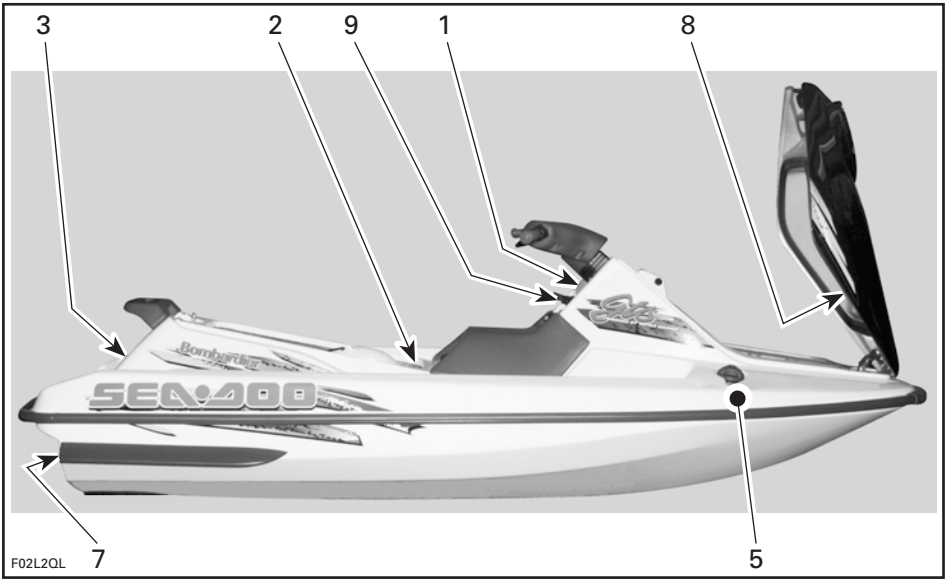
GS AND GSX LIMITED



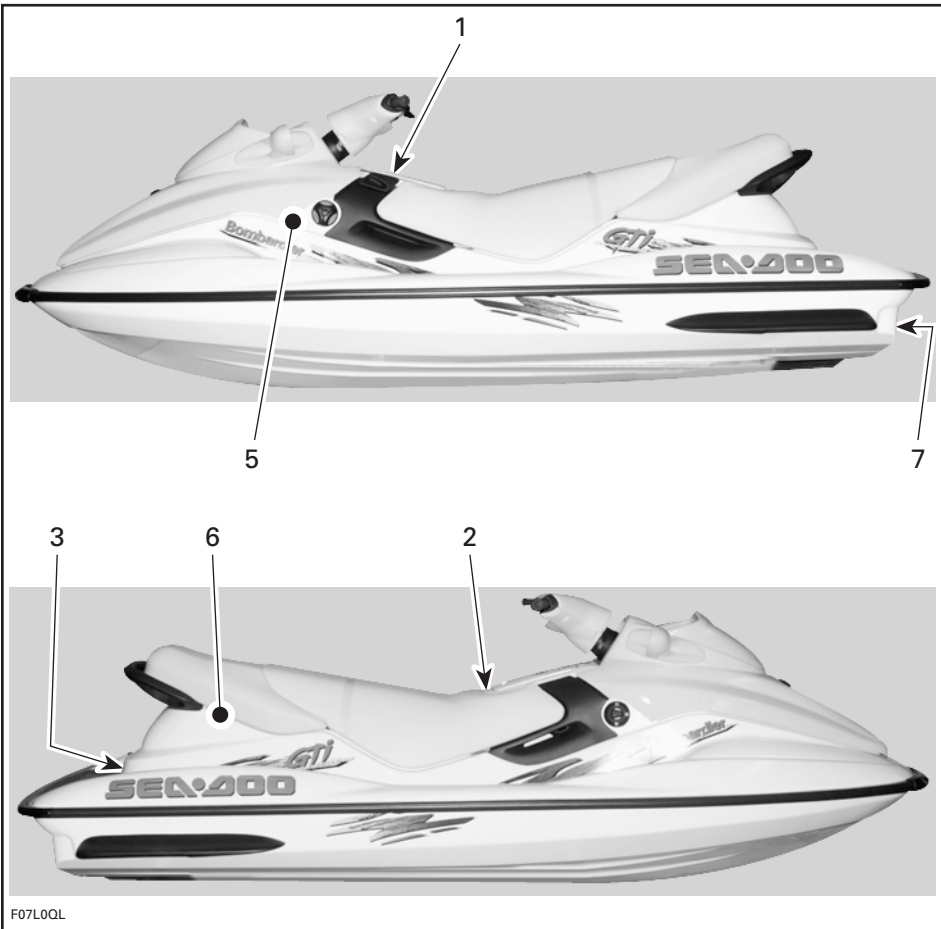
F08L0PL

XP LIMITED





GTS MODEL



F07LOQL

GTI AND GTX LIMITED

1

**◆ WARNING**

**Read all warning label, Operator Guide & safety documents before operating. Severe injury or death can result from ignoring such information or improper use of the watercraft.**

- Check throttle & steering operation before starting engine.
- Directional control is lost when throttle is released or engine shut off.
- Do not splash others or jump waves or wakes with this watercraft.
- Properly attach safety tether to your PFD.
- Keep a safe distance from other water users. Observe boating regulations.
- This watercraft is not design for night-time operation.

F00A0RL

ALL MODELS EXCEPT XP LIMITED

1

**◆ WARNING**

Read all warning labels, Operator Guide & safety documents before operating. Severe injury or death can result from ignoring such information or improper use of the watercraft.

- Check throttle & steering before starting engine.
- Directional control is lost when throttle is released or engine turned off.
- Do not splash other or jump waves or wakes.
- Properly attach safety tether to your PFD.
- Keep a safe distance from other water users. Observe boating regulations.
- This watercraft is not design for night time operation.

CLOSE ENGINE COVER BEFORE FUELING.  
KEEP WATERCRAFT LEVEL WHILE FUELING.  
DO NOT OVERFILL.  
CHECK OIL LEVEL.  
PERIODICALLY, CHECK FUEL SYSTEM.

F08L04M

XP LIMITED

2

**• CAUTION**

USE BOMBARDIER-ROTAX INJECTION OIL OR HIGHER QUALITY LOW ASH API TC INJECTION OIL FOR 2 CYCLES ENGINES.

NEVER USE NMMA TC-W, TC-WII or TC-W3 outboard motor oils.

F00L06Z

SPX, GS, GTS AND GTI MODELS

3

"THIS BOAT IS NOT REQUIRED TO COMPLY WITH THE FOLLOWING U.S. COAST GUARD SAFETY STANDARDS IN EFFECT ON THE DATE OF CERTIFICATION:

- Fuel System
- Display of Capacity Information
- Safe Loading
- Flotation
- Powered Ventilation

AS AUTHORIZED BY U.S. COAST GUARD GRANT OF EXEMPTION (CGB 88-001)."

Bombardier Corp. 7575 Bombardier Court, Wausau, WI 54401

Made in Canada/Fabriqu  au Canada | Bombardier Inc. Rd./Enr.,1988

F02L2DZ

2

**▼ CAUTION**

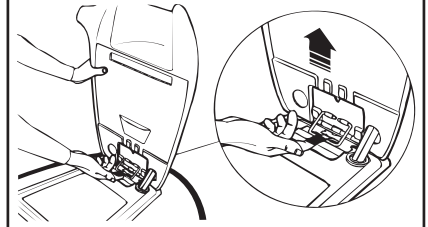
USE ONLY BOMBARDIER ROTAX SYNTHETIC TWO-STROKE OIL.  
ASH FREE-BIODEGRADABLE SPEC. CEC L-33A-82.

F01L83Z

GSX LIMITED, XP LIMITED AND GTX LIMITED

4

**TO CLOSE / POUR FERMER**



F06A03Y

5

**◆WARNING**

WHILE FUELING, STOP ENGINE. FUEL TANK MAY BE PRESSURIZED, SLOWLY TURN CAP WHEN OPENING. KEEP WATERCRAFT LEVEL, DO NOT OVERFILL. CHECK OIL LEVEL. PERIODICALLY, VERIFY FUEL SYSTEM.

F01L6VY

6

**• WARNING**

DO NOT BOOST BATTERY WHILE INSTALLED.

F00L05Y

7

**▼ CAUTION**

TO AVOID POSSIBLE ENGINE FLOODING WHEN ROLLED OVER :



- MAKE SURE ENGINE IS OFF
- GRAB INLET GRATE AND STEP ON BUMPER RAIL
- ROLL BOAT CLOCKWISE

F02L2EY

*GS, GTS AND GTI MODELS*

7

**▼ CAUTION**

TO AVOID POSSIBLE ENGINE FLOODING WHEN ROLLED OVER:



- MAKE SURE ENGINE IS OFF
- GRAB INLET GRATE AND STEP ON BUMPER RAIL
- ROLL BOAT COUNTERCLOCKWISE

F06L0DY

*GSX LIMITED, XP LIMITED AND GTX LIMITED*

7

**AFTER ROLL OVER**

ALWAYS TIP WATERCRAFT AS SHOWN BEFORE RESTARTING ENGINE

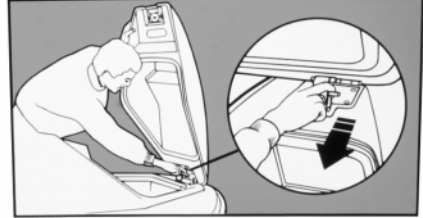


F01L6U0

*SPX MODEL*

8

**TO CLOSE/POUR FERMER**



F02L3FY

*GTS MODEL*

9

**◆WARNING**

- NOT A GRAB HANDLE
- USE REVERSE ONLY AT VERY LOW SPEED



**REVERSE**

F02L2G0

*GTS MODEL*

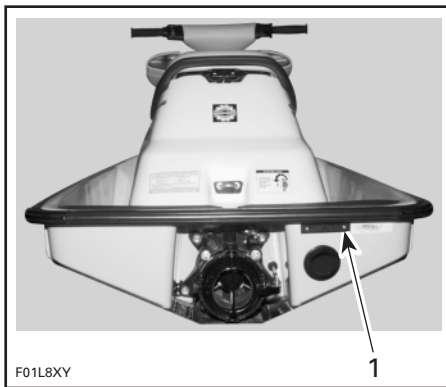
# WATERCRAFT IDENTIFICATION

The main components of the watercraft (engine and hull) are identified by different serial numbers. It may sometimes become necessary to locate these numbers for warranty purposes or to trace the watercraft in the event of theft.

## Hull Identification Number

### SPX and GTS Models

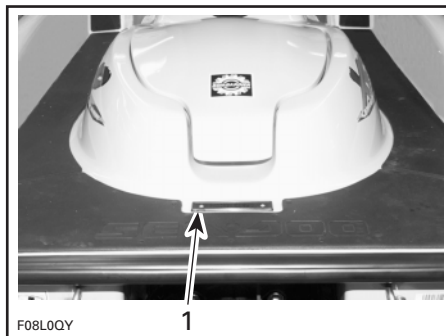
The Hull Identification Number (H.I.N.) is located at right hand rear side of hull.



1. Hull Identification Number (H.I.N.)

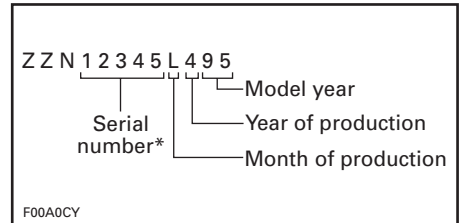
### All other Models

The Hull Identification Number (H.I.N.) is located on floorboard at the rear of watercraft.



1. Hull Identification Number

It is composed of 9 digits:

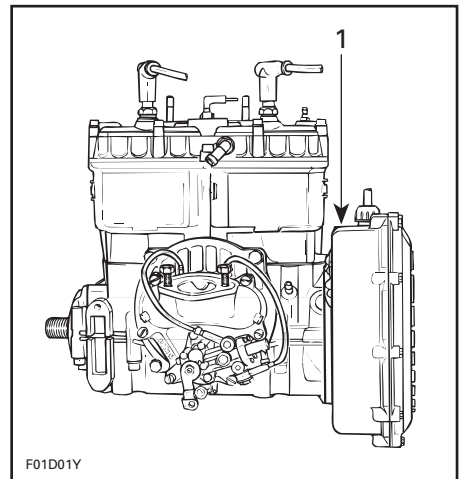


\*A letter may also be used as a digit.

## Engine Identification Number

### 717 Engine

The Engine Identification Number (E.I.N.) is located on the upper side of the magneto housing.

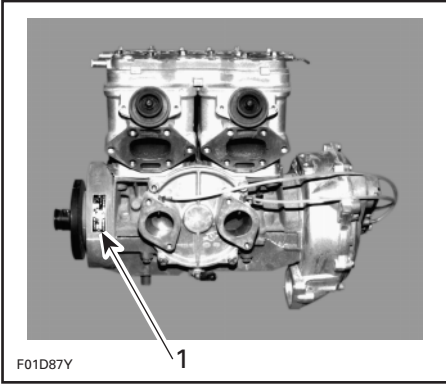


TYPICAL

1. Engine Identification Number (E.I.N.)

### **787 Engine**

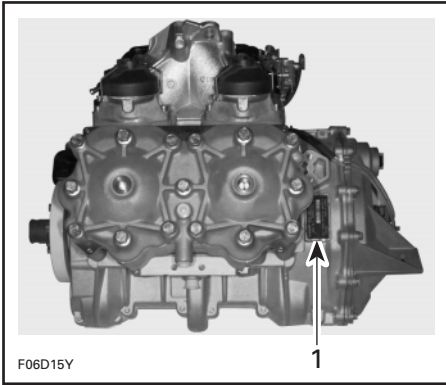
The Engine Identification Number (E.I.N.) is located on the upper crankcase on PTO side.



1. Engine Identification Number

### **947 Engine**

The Engine Identification Number (E.I.N.) is located on the upper crankcase on MAGNETO side.

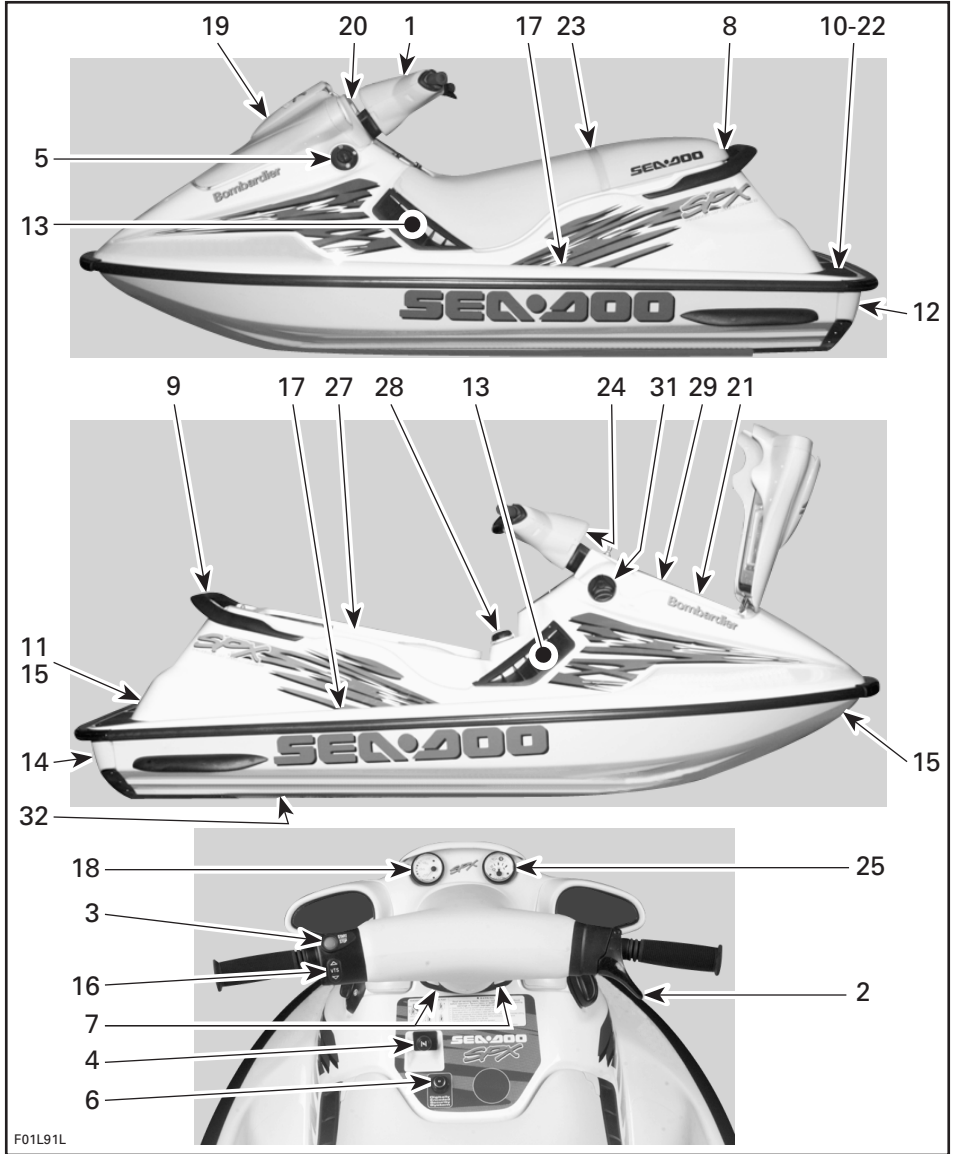


1. Engine Identification Number

# COMPONENT FUNCTIONS

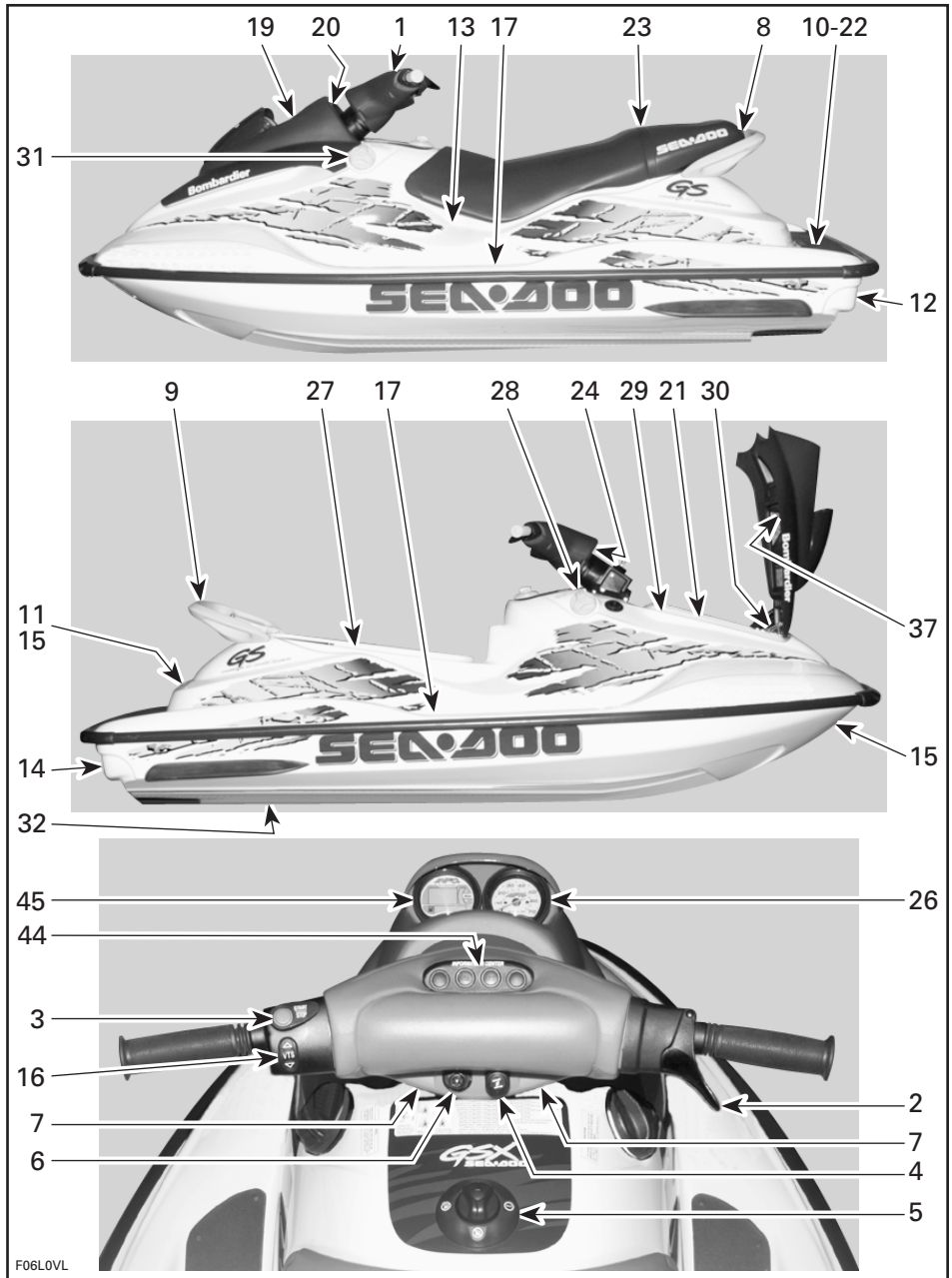
NOTE: Some components do not apply or are optional on some models.

## SPX Model



F01L91L

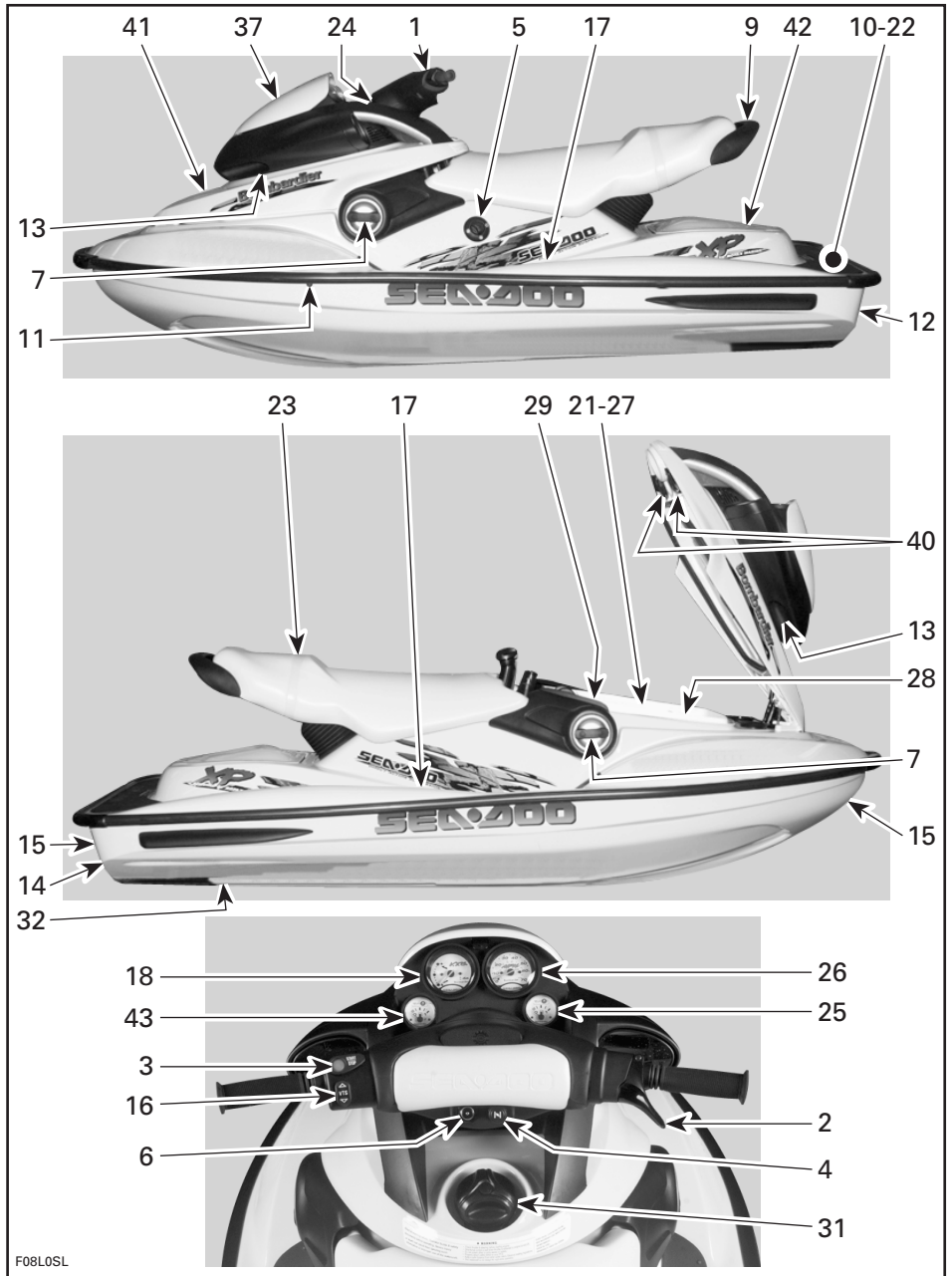
**GS and GSX Limited**



F06LOVL

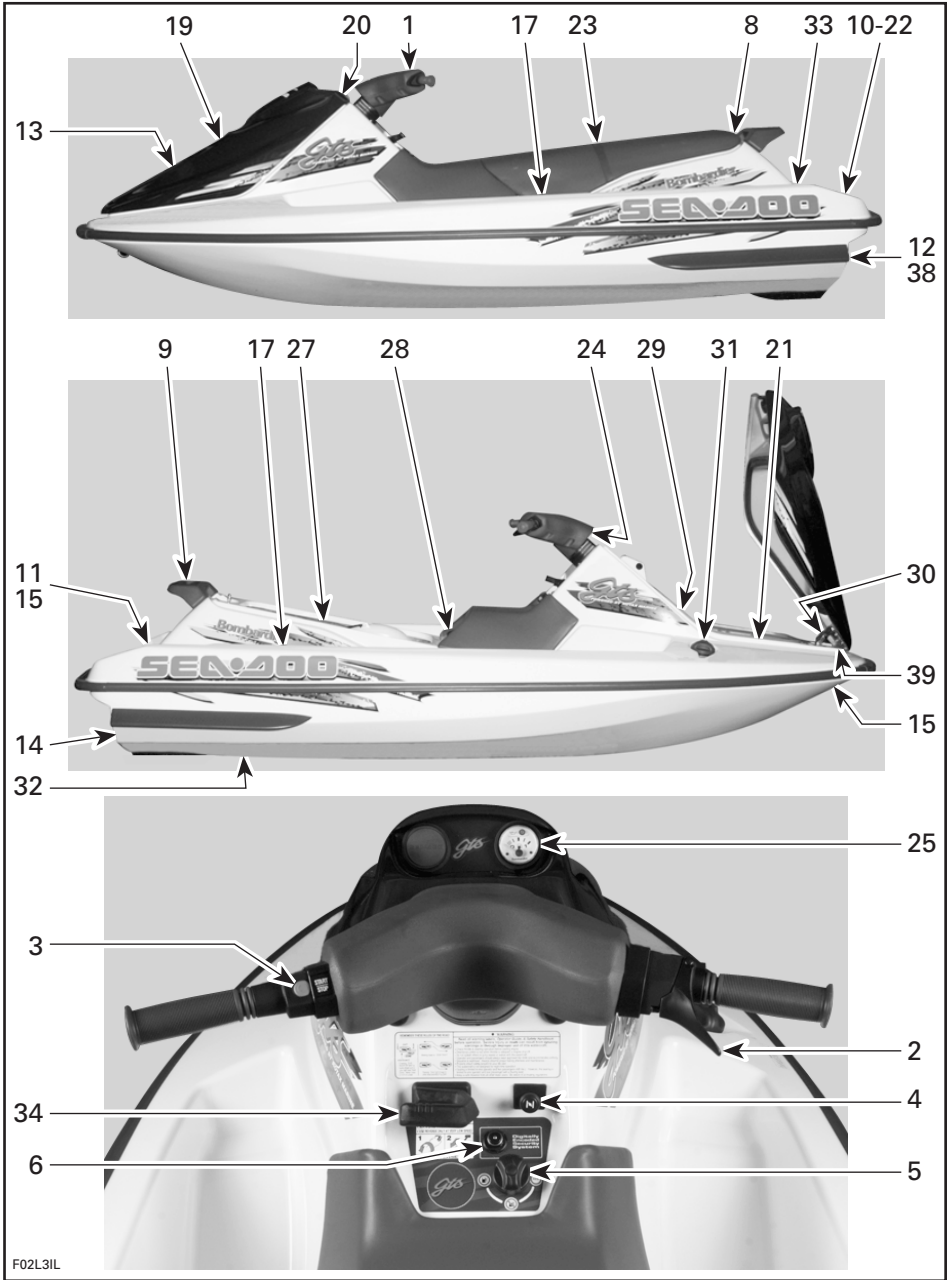


**XP Limited**



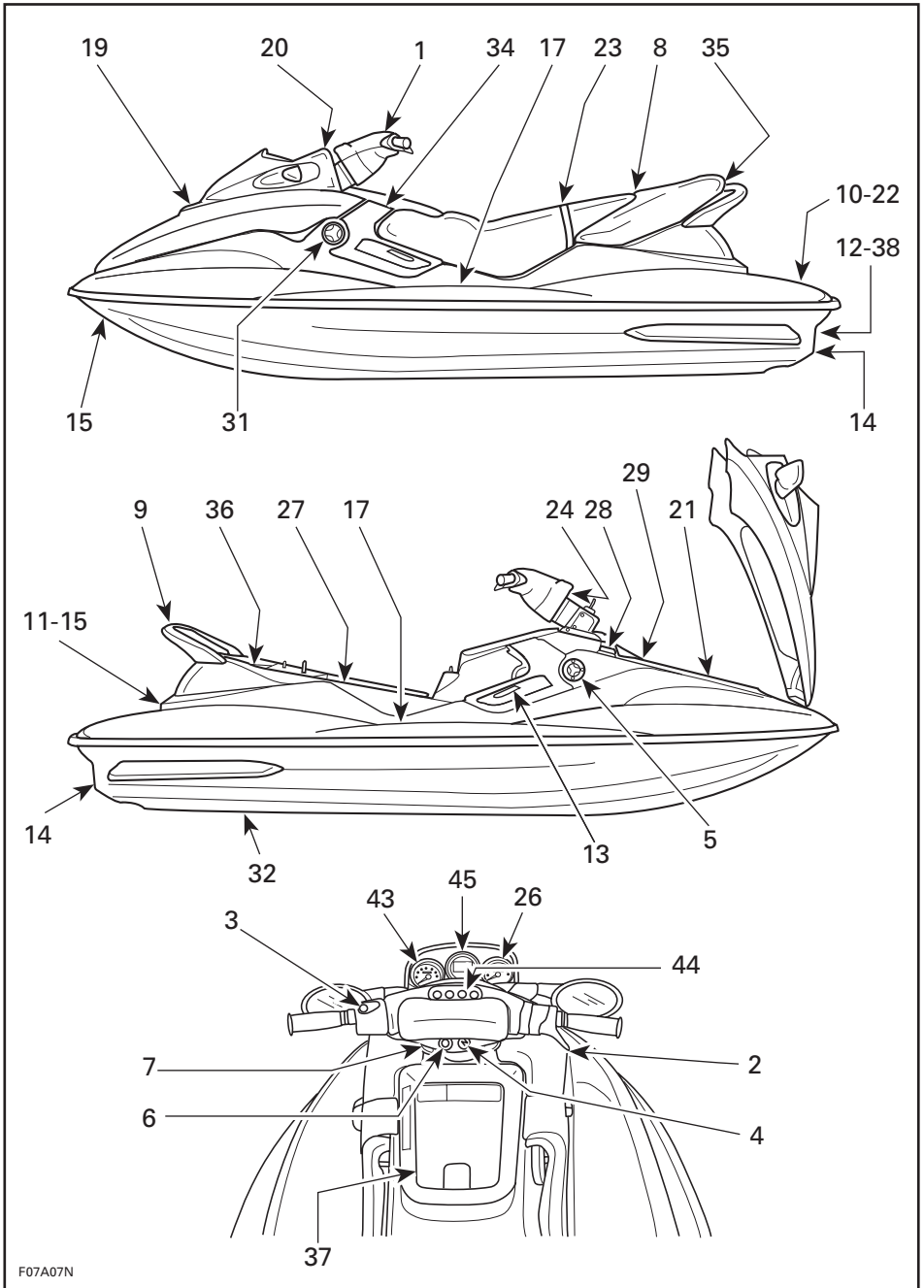
F08LOSL

**GTS Model**



F02L31L

**GTI and GTX Limited**



F07A07N

## 1) Handlebar

The handlebar controls the direction of the watercraft. Turning the handlebar to the right steers the watercraft to the right and inversely.

### ◆ WARNING

Check handlebar and corresponding steering nozzle operation before starting.

## 2) Throttle Lever

It controls the speed of the engine and therefore, the speed of the watercraft. When squeezed, watercraft accelerates. When fully released, engine automatically returns to idle speed and watercraft is gradually stopped by water drag.

### ◆ WARNING

Check throttle lever operation before starting the engine.

Do not depress lever unnecessarily. A fuel accelerator pump delivers fuel to the engine each time throttle lever is applied.

### ▼ CAUTION

Engine can be flooded if throttle lever is applied several times. If engine is flooded, it will not start.

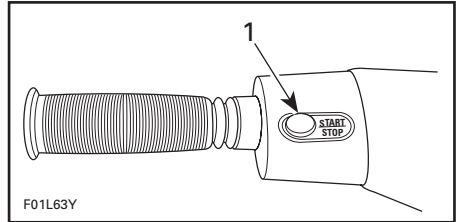
## 3) Engine Start/Stop Button

To start engine, depress and hold the button. Release immediately after engine is started.

To stop engine, fully release throttle lever then depress the button and disconnect safety lanyard from the switch.

### ◆ WARNING

When the engine is stopped, watercraft directional control is not available.



1. Engine start/stop button

With the Digitally Encoded Security System, leaving the safety lanyard for more than 10 minutes after stopping the engine will require the removal and reinstallation of the safety lanyard on the switch to allow engine starting.

## 4) Choke Lever

The choke is provided to supply a richer fuel/air mixture when starting a cold engine. When the lever is completely pulled, the choke is fully applied. The use of the choke is not recommended with a warm engine.

## 5) Fuel Valve

A 3-position rotating valve: OFF, ON and RESERVE:

OFF: Stop fuel supply to carburetor(s).

### ▼ CAUTION

Turn valve to OFF position when watercraft is not operated.

ON: Allows fuel to flow to carburetor(s). This is the normal position for operation of watercraft.

**▼ CAUTION**

A partially open fuel valve will lead to fuel starvation and possible engine damage.

RES: Use when the watercraft has run out of fuel in the ON position.

**◆ WARNING**

Always refill the fuel tank at the first opportunity. After refueling, turn the fuel valve to the ON position to continue operation.

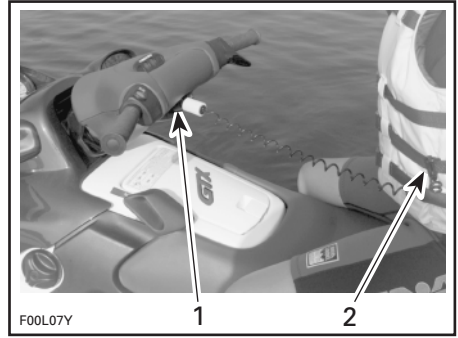
## 6) Safety Lanyard Switch

Pulling the safety lanyard cap from the switch stops the engine operation. Attach the safety lanyard to the operator's Personal Flotation Device and snap the cap to the switch to be able to start the engine.

The safety lanyard cap must be securely snapped onto its switch to be fully operational.

**◆ WARNING**

Should the safety lanyard cap become loose or fails to remain on its switch, replace it immediately.



1. Safety lanyard cap on the switch
2. Safety lanyard secured on operator's PFD

**◆ WARNING**

Should the engine be stopped, watercraft directional control is not available. Always disconnect safety lanyard when leaving watercraft.

## Digitally Encoded Security System

This system allows an anti-start protection against unauthorized use of the craft. Dealer programmed, the safety lanyard provided with your watercraft is the only one that allows engine starting.

**NOTE:** Two short beeps must be heard when installing the safety lanyard cap on the switch. Otherwise, refer to the TROUBLESHOOTING section.

The watercraft micro-processor can be programmed to allow the use of up to 8 safety lanyards. For your convenience, we recommend the purchase of additional safety lanyards from your authorized dealer. It will prove to be useful in case of loss as well as for additional operators.

With the DESS, leaving the safety lanyard for more than 10 minutes after stopping the engine will require the removal and reinstallation of the safety lanyard on the switch to allow engine starting.

To find out the meaning of the monitoring beeper coded signals, refer to TROUBLESHOOTING section.

## 7) Docking Eyelets

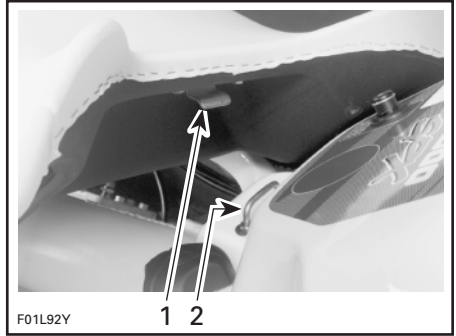
These eyelets can be temporarily used for docking, while refueling for example.

## 8) Seat Latch

Removing the seat allows access to the engine compartment and to oil tank cap/dipstick.

The seat latch is located at the rear end and underneath the seat.

When reinstalling the seat, insert seat front tab into body hook.



1. Insert this tab in hook
2. Hook

Pull latch lever to insert it over the rear lock pin. Release latch lever then firmly push on rear of the seat to relatch.

### ◆ WARNING

Periodically verify the seat lock pin and tighten if needed. Make sure seat is securely latched.

## 9) Rear Grab Handle

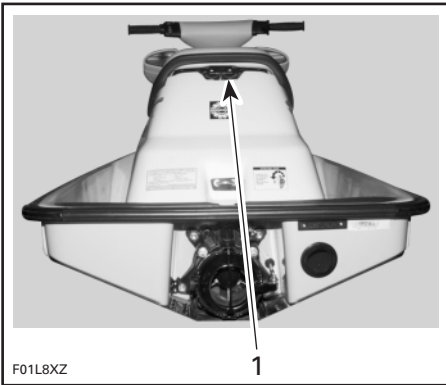
Provides a handhold for boarding when needed and a handhold for the passenger.

### ▼ CAUTION

Never use the grab handle to tow anything or to lift the watercraft.

## 10) Boarding Pads

Provide a cushioned surface for the knees when boarding from rear of watercraft.



TYPICAL

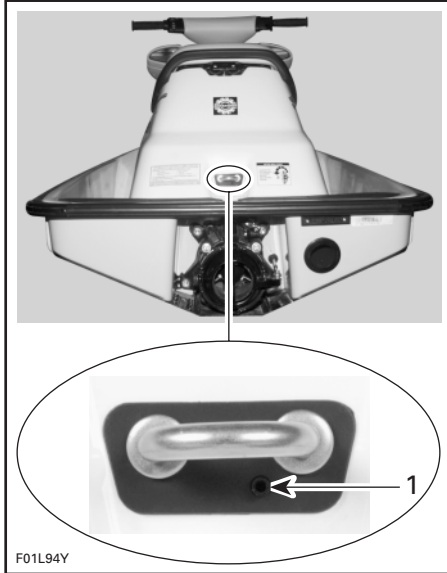
1. Seat latch

To remove seat, pull the latch lever upward and hold. Lift and pull the seat rearward.

**NOTE:** On the GTI and GTX Limited models, it is necessary to remove the rear seat first.

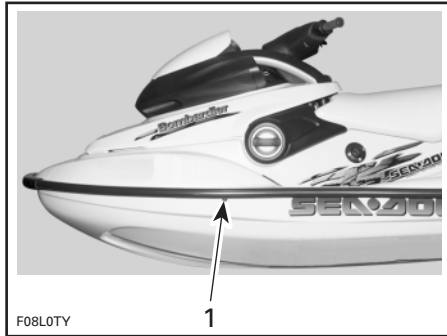
## 11) Cooling System Bleed Outlet(s)

*All Models Except XP Limited*



1. Bleed outlet

**XP Limited**



1. Bleed outlet

When engine is running, water must flow from the outlet(s). This allows air in engine cooling system to escape. It also indicates that water is circulating in the cooling system.

## ▼ CAUTION

Should water not flow from outlet a few seconds after engine starts, immediately stop engine and refer to POST-OPERATION CARE and look for cooling system flushing or refer to an authorized dealer for servicing.

## 12) Jet Pump Nozzle

It is turned from side to side via rider input at the handlebar. This provides watercraft directional control when engine is running.

## ▼ CAUTION

Never use nozzle as a supporting point to board the watercraft or to lift it.

## 13) Air Intake Opening

This is where air enters to supply the engine and ventilate the engine compartment. If the air intake opening is kept under water for a long period water will get inside bilge.

## ▼ CAUTION

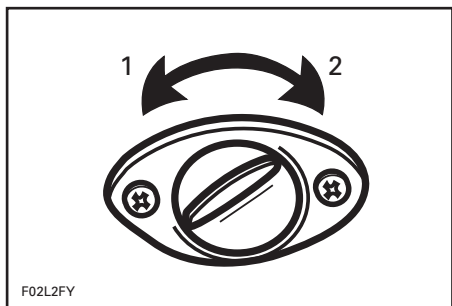
If the air intake opening is kept under water for a long period, such as turning constantly in tight circles, water will get inside bilge, which may cause severe damage to internal parts of the engine.

## 14) Bilge Drain Plugs

Should water be found in the bilge, it can be easily drained by unscrewing the drain plugs.

## ▼ CAUTION

Make sure drain plugs are properly secured prior launching the watercraft in water.



1. Unscrew
2. Tighten

Tilt the watercraft slightly to the rear so that the water can completely flow out of the bilge.

## ◆ WARNING

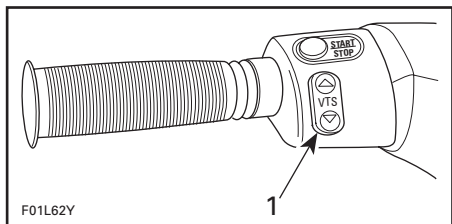
Always make sure bilge drain plugs are properly tightened.

## 15) Bow and Stern Eyelets

Eyelets can be used for mooring, towing and as a tie-down point during transportation.

## 16) Variable Trim System Button

Located just below engine start/stop button, this button is used to change pump nozzle position and to adjust ride to suit boat load and water conditions.

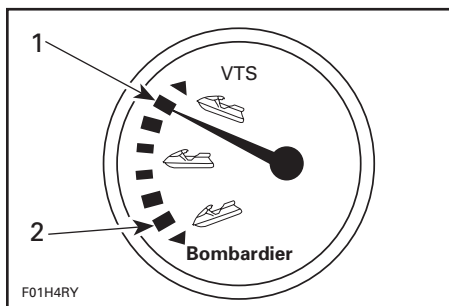


1. VTS button

## 17) Floorboard

User's feet should rest on the floorboard when riding.

## 18) Variable Trim System Gauge



### TYPICAL

1. Bow up
2. Bow down

The VTS gauge shows the riding angle of the watercraft.

## 19) Storage Compartment Cover

It gives access to the storage compartment. Always relatch cover after closing.

## 20) Cover Latch

Pull the latch lever upward in order to open the storage compartment cover. Always relatch.

**NOTE:** Verify periodically the lock pin tightness of storage cover. Tighten if needed and make sure storage cover latches properly.

## 21) Storage Compartment

A convenient watertight, removable basket to carry personal articles. Ideal location for spare spark plugs, tow-rope, first aid kit, etc.

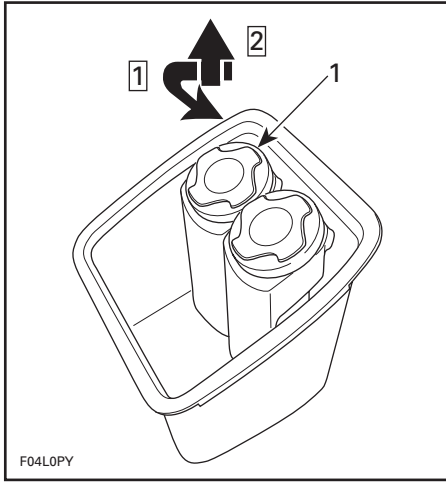
## ◆ WARNING

Never leave any heavy or breakable objects in the storage basket. Never store or carry anything below basket.



### All Models Except XP Limited

The basket is provided with a holder to store an approved fire extinguisher and tool kit. A second holder contains *Operator's Guide* and can be used to carry personal articles. Fire extinguisher (sold separately) should not be loose in the storage compartment.



#### TYPICAL

Step 1 : Turn cover counterclockwise

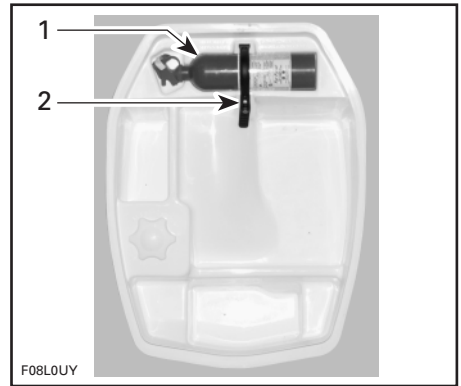
Step 2 : Lift

1. Extinguisher and tool kit holder

### XP Limited

The basket is provided with separate compartments.

One of the compartment is designed to accommodate the tool kit and an approved fire extinguisher (sold separately). A strap secures the fire extinguisher.



1. Tool kit and fire extinguisher
2. Retaining strap

## 22) Boarding Platform

Provides a large surface for easy boarding from rear of watercraft.

## 23) Seat Strap

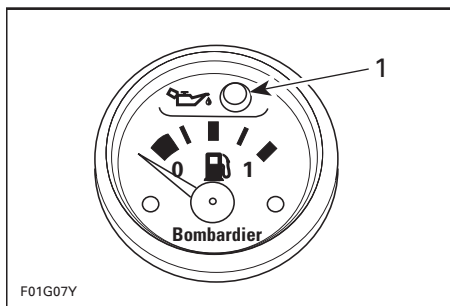
The seat strap provides a handhold when needed for boarding and is used as a handhold for the passenger.

## 24) Monitoring Beeper

The beeper may send different coded signals whenever a particular situation occurs. Refer to TROUBLESHOOTING section for signal description and their signification.

## 25) Fuel Gauge/Low Oil Warning Light

Analog gauge indicates the amount of fuel in the fuel tank and a warning light when level is low in oil tank.



1. Low oil warning light

**NOTE:** With the safety lanyard disconnected, electrical system can be activated for approximately 33 seconds by depressing the engine start/stop button.

## 26) Speedometer

Analog speedometer indicates the speed of watercraft in miles per hour (MPH) and kilometers per hour (km/h). The speed sensor mounted on the ride plate sends the signal to the speedometer.

## 27) Engine Compartment

This is where the mechanical, electrical and fuel/oil systems are located.

### ◆ WARNING

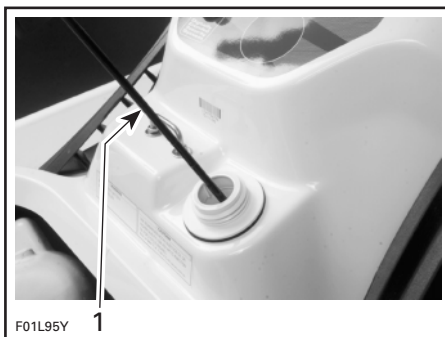
When starting or operating the engine, do not touch any electrical part. Never leave any object, rag, tool, etc., in the engine compartment or in the bilge.

## 28) Oil Injection Tank Cap

### **SPX and GTS Models**

Unscrew the cap counterclockwise then pull to expose the dipstick.

**NOTE:** Seat has to be removed to expose oil cap.



1. Dipstick

The dipstick indicates the amount of oil to be added in the tank. Oil level should be maintained between FULL and ADD marks. Before checking oil level, place the watercraft level, then wipe the dipstick and insert it in the tank neck. Do not screw cap. Remove dipstick and read the level.

To add injection oil in the tank, unscrew the cap counterclockwise. Fully tighten when finished.

### **GS and GSX Limited**

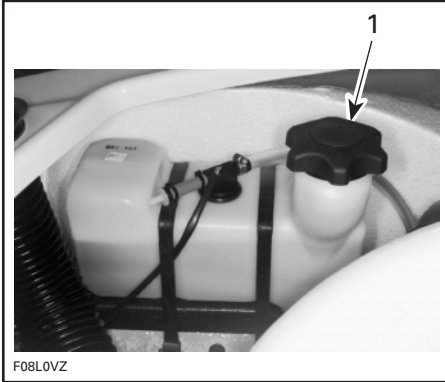
The oil cap is located on the right hand side of the watercraft.

To add injection oil in the tank, unscrew the cap counterclockwise. Fully tighten when finished.

### **XP Limited**

Open engine cover and remove storage basket.

To add injection oil in the tank, unscrew the cap counterclockwise. Fully tighten when finished.



#### **TYPICAL**

1. Oil injection tank cap

### **GTI and GTX Limited**

Open the storage compartment cover to expose oil cap.

The oil cap is located on the right hand side of the watercraft.

To add injection oil in the tank, unscrew the cap counterclockwise. Fully tighten when finished.

### **29) Tool Kit**

Contains tools needed to perform basic watercraft maintenance.

### **30) Storage Compartment Cover Hinge/Locking Mechanism**

#### **GS and GSX Limited**

Hinge is provided with a locking mechanism to hold storage compartment cover when fully open. To close cover, pull tab.

### **GTS Model**

Hinge is provided with a locking mechanism to hold storage compartment cover when fully open. To close cover, pull side pins.

### **31) Fuel Tank Cap**

Unscrew the cap counterclockwise to allow fuel tank filling. Fully tighten when finished.

#### **WARNING**

Never use a lit match or open flame to check fuel level.

### **32) Jet Pump Water Intake**

The water is drawn up by the impeller through this opening. The impeller and the drive shaft are protected by a grate.

### **33) Rear Vent Grills**

Allows air to get in or out depending on engine operation.

#### **CAUTION**

If grills are kept below water level for a long period (e.g.: when boarding 2 passengers) water will enter the bilge.

### **34) Shift Lever**

A 3-position lever:

- Forward
- Neutral
- Reverse

#### **WARNING**

Shift lever should only be used when the engine is idling and watercraft is completely stopped. Never rev the engine at high rpm's.

### **GTS Model**

When pushed in, the watercraft is in forward. To obtain neutral, unlock lever by turning it counterclockwise, then pull lever until neutral mark appears on rod. To engage reverse, repeat same procedure as for neutral, but pull lever until reverse mark appears on rod. Lever locks in forward and in neutral positions only.

### **35) Rear Seat Latch**

Removing the rear seat allows access to the rear storage basket. It also gives access to the seat latch of the front seat.

### **36) Rear Storage Basket**

A convenient watertight, removable basket to carry personal articles.

### **37) Glove Box**

A small, convenient watertight storage compartment for keys, wallet, maps, etc.

### **38) Reverse Gate**

When selecting the neutral or reverse position with the shift lever, the reverse gate moves up or down to obtain the desired position.

## **CAUTION**

Never use gate as a supporting point to board the watercraft.

### **39) Water Tank Trap Drains**

If water enters the air intake opening, a water tank trap with a baffle separates water from the air then evacuates the water through the front of storage cover.

## **CAUTION**

Unusual maneuvers such as circles with the nose of the watercraft under water will fill the bilge.

### **40) Engine Cover Latches**

Pull both latch levers upward in order to open the engine cover. Always relatch engine cover on both sides.

**NOTE:** Verify periodically the lock pins tightness. Tighten if needed and make sure engine cover latches properly.

### **41) Engine Cover**

It gives access to the engine compartment.

Always relatch engine cover after closing.

### **42) Rear Access Cover**

It gives access to the drive system, suspension, exhaust system and bailer pick-ups. Always relatch cover.

### **43) Tachometer**

An analog tachometer indicates the revolutions per minute (RPM) of the engine. Multiply by 1000 to obtain the actual revolutions.

### **44) Info Center Switches**

The MODE button is used to change display functions.

The SET button is used to set or reset a function.

## 45) Info Center Gauge

This is a LCD multifunction gauge. It features the following functions:

### **GSX Limited**

- Clock
- Tachometer
- Speedometer
- Peak speed
- Average speed
- Trip meter
- Engine hourmeter
- Lake temperature
- Chronometer
- VTS
- Fuel level
- Low fuel
- Low oil
- Low voltage
- Overheating
- Maintenance information

### **GTX Limited**

- Clock/compass
- Tachometer
- Speedometer
- Peak speed
- Average speed
- Trip meter
- Engine hourmeter
- Lake temperature
- Exterior temperature
- Chronometer
- Fuel level
- Low fuel
- Low oil
- Low voltage
- Overheating
- Maintenance information



## **WARNING**

Use the compass as a guide only, not to be used for navigation purposes.

### **GSX Limited and GTX Limited**

The Info Center also features a red warning LED which blinks whenever one of the following circumstances occur: engine overheating, low fuel, low oil and low voltage.

For example, if the fuel level is low, the LED and the message "LOW FUEL" will blink.

As a self test, all LCD segments and the LED for 3 seconds each time the watercraft is started.

### **SCROLLING FUNCTIONS**

Press the MODE button until the desired function is displayed on the Info Center gauge.

### **RESET A FUNCTION**

To reset a function such as the chronometer, peak speed, distance, etc., press and hold the SET button for 2 seconds while in the appropriate mode.

### **DISPLAY PRIORITIES**

The clock/compass function is the basic mode of the Info Center gauge.

The chronometer, tachometer and speedometer are the only other modes that may be chosen to replace the clock/compass mode.

If another mode is chosen, the clock/compass mode will be displayed again after 4 seconds.

In the event of a warning message such as low fuel, hi-temp, etc., the message will blink and override all other display functions.

If more than one warning message occurs, the messages will blink and reappear every 4 seconds.

## LANGUAGE OPTION

While in the clock/compass mode, press and hold the SET button for at least 2 seconds. Language option will be displayed.

Press the MODE button to scroll language (English, French and Spanish).

Press the SET button to confirm the desired language and return to the clock/compass mode.

## ENGLISH/METRIC OPTION

Press and hold both MODE and SET buttons for at least 2 seconds. The system will be automatically changed.

## CHRONOMETER

While in the chronometer mode, press the SET button to start and stop the chronometer.

Press the SET button for 2 seconds to reset the chronometer.

## CLOCK ADJUSTMENT

While in the clock/compass mode, press and hold the MODE and SET buttons for 2 seconds.

Press the MODE button to adjust the hours and the SET button to adjust the minutes.

Press again on the MODE and SET buttons to return to the normal mode (or it will return to the normal mode after 10 seconds).

## MAINTENANCE INFORMATION

When the watercraft is due for a maintenance inspection, the message **MAINT** will blink.

To clear the warning message, press the SET button for 2 seconds during the message blinking.

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# FUEL AND LUBRICATION

## Fueling Procedure

 **WARNING**

Follow these safe boating fueling instructions explicitly.

Do not allow anyone to remain on the watercraft.

Do not smoke or allow open flames in the vicinity.

Have a fire extinguisher close at hand.

Do not insert the spout too far in filler neck.

Pour fuel slowly so that air can escape from the tank and prevent fuel flow-back.

Do not lean watercraft while fueling.

Fill fuel tank to bottom of filler neck. Do not overfill. Fully tighten fuel tank cap and wipe off any fuel spillage.

 **WARNING**

Do not lean the watercraft to allow more fuel to fill the fuel tank. The tank design makes provision for fuel expansion of about 5%. If this area is filled, fuel will expand and may come out through fuel vent. Always stop the engine before refueling. Fuel is inflammable and explosive under certain conditions. Always work in a well ventilated area. Do not smoke or allow open flames or sparks in the vicinity. Never top off the fuel tank and leave watercraft in the sun. As temperature increases, fuel expands and might overflow. Always wipe off any fuel spillage from the watercraft.

## Recommended Fuel

Use regular unleaded gasoline with 87 octane (Ron + Mon/2) specification.

**NOTE:** Look on service station pump sticker for octane specification. Do not mix oil with fuel except at engine break-in. Refer to BREAK-IN PERIOD. Always check injection oil tank level when refueling.

The use of good quality fuel is necessary. A well known fuel brand is highly recommended.

 **CAUTION**

Never experiment with other fuels or fuel ratios. Never use fuel containing alcohol, methanol or similar products including naphtha. The use of non-recommended fuel can result in watercraft performance deterioration and damage to critical parts in the fuel system and engine components.

## Recommended Oil

### *SPX, GS, GTS and GTI Models*

Use BOMBARDIER ROTAX INJECTION OIL which is available from authorized dealers. It is a blend of specially selected base oils and additives which provides proper lubrication, engine cleanliness and minimum spark plug fouling.

**NOTE:** High quality low ash API TC injection oil for 2-cycle engines can be used if BOMBARDIER ROTAX INJECTION OIL is not available.

**▼ CAUTION**

Never use 4-cycle petroleum or synthetic motor oil and never mix these with outboard motor oil. Do not use NMMA TC-W, TC-W2 or TC-W3 outboard motor oils or other ashless type 2-cycle oil. Avoid mixing different brands of API TC oil as resulting chemical reaction may cause severe engine damage.

***XP Limited, GSX Limited and GTX Limited***

Use BOMBARDIER ROTAX FORMULA XP-S synthetic injection oil (or the equivalent synthetic oil).

This fully synthetic oil will provide outstanding lubrication and cleanliness, less friction and wear for greater engine performance and durability.

**▼ CAUTION**

The 947 engine requires the use of Bombardier Rotax Formula XP-S SYNTHETIC injection oil (or the equivalent synthetic oil).

## **Oil Injection System**

This watercraft features an oil injection system which does not require manual fuel/oil mixing.

A sufficient amount of injection oil should be maintained in the tank.

**NOTE:** Always carry a 1 L of injection oil.

**▼ CAUTION**

Always maintain a sufficient amount of injection oil in the oil tank. Check and refill every time you refuel. Do not overfill. If the engine runs out of oil, severe engine damage will occur. If the oil tank is found almost empty, air can enter in the system and it must be bled. Immediately refer to an authorized dealer to have the oil injection system inspected.



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# BREAK-IN PERIOD

## Engine

With Bombardier-Rotax® watercraft engines, a break-in period is required before operating the engine at full throttle. Engine manufacturer recommendation is about 10 operating hours.

During this period, maximum throttle should not exceed 3/4, however, brief acceleration and speed variations contribute to a good break-in. Continued wide open throttle accelerations, prolonged cruising speeds and overloading the engine are detrimental during the break-in period.

To assure additional protection during the initial engine break-in, BOMBARDIER ROTAX INJECTION OIL should be added in the fuel tank **for the first full fuel tank filling only.**

MODELS	QUANTITY
SPX	700 mL (24 oz)
GS, GSX Limited, GTI and GTX Limited	1 L (1.05 qt)
XP Limited and GTS	900 mL (30 oz)

To add injection oil in the fuel tank, proceed as follows:

Fill fuel tank with approximately 15 liters (4 gal) of gasoline; then, add the required quantity of injection oil in the fuel tank.

Fill up fuel tank with gasoline. Do not overfill.



## CAUTION

It is important to proceed in this order to allow a proper mixing of the oil in the gasoline.

## 10-Hour Inspection

It is highly recommended that after the first 10 hours of operation, the watercraft be checked by an authorized dealer. This inspection will also provide the opportunity to discuss the unanswered questions you may have encountered during the first hours of operation.

---

**The 10-hour inspection is at the expense of the watercraft owner.**

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<b>10-HOUR INSPECTION CHECK LIST</b>	✓
Engine ignition timing if required	
Spark plug inspection, cleaning and adjustment	
Fuel system lines and fasteners/ <b>pressurization test</b>	
Carburetor adjustment including throttle/choke cables if required	
Oil lines and filter	
Oil injection pump adjustment if required	
Engine support and engine rubber mounts	
Muffler, battery and reservoir fastening devices	
Exhaust system hose clamps	
Carburetor flange nuts (or screws) and flame arrester bracket	
Steering system inspection	
Steering cable adjustment if required	
Reverse cable adjustment if required (if applicable)	
VTS adjustment if required (if applicable)	
Cooling system hose condition and fasteners	
Bailer pick-ups, check for obstructions	
Digitally Encoded Security System	
Monitoring beeper	
Electrical connections (starter, battery, etc.)	
Jet pump oil replacement	
PTO flywheel and seal carrier lubrication (if applicable)	
Inspection of fasteners for tightness	
Inspect/clean engine drain tube	
Hull inspection	

**We recommend that this inspection chart be signed by an authorized dealer.**

\_\_\_\_\_ Date of 10-hour inspection

\_\_\_\_\_ Authorized dealer signature

\_\_\_\_\_ Dealer code

# PRE-OPERATION CHECKS

Some of the following items may not have been previously covered in this Guide, however they will be described in the MAINTENANCE or SPECIAL PROCEDURES section. Please refer to these sections to have more detailed information.

**Prior to your daily ride, verify the following:**

## ◆ WARNING

Safety lanyard must always be removed from switch prior to verifying any of the following.

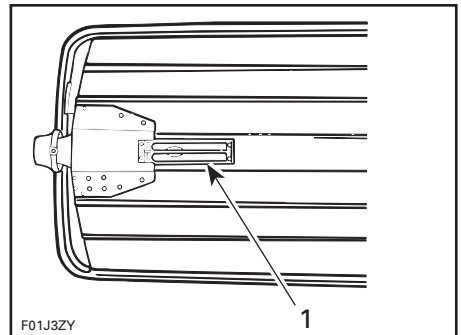
ITEM	OPERATION	✓
Hull	Inspect.	
Jet pump water intake	Inspect/clean.	
Bilge	Drain. Ensure plugs are secured.	
Battery	Inspect tightness of cables and retaining strap(s).	
Fuel and oil tanks	Refill.	
Engine compartment	Verify for any fuel leak/odor.	
Fire extinguisher	Inspect condition/mounting.	
Steering and throttle systems	Check operation.	
Reverse system (if applicable)	Check operation.	
VTS (if applicable)	Check operation.	
Safety lanyard, engine start/stop button	Check operation.	

## Hull

Inspect hull for cracks or damage.

## Jet Pump Water Intake

Remove weeds, shells, debris or anything else that could restrict the flow of water and damage cooling system or propulsion unit. Clean as necessary. If any obstruction can not be removed, refer to an authorized dealer for servicing.



**TYPICAL**

1. Inspect this area

Inspect leading edges of the impeller, if they have nicks or bends performance will be greatly reduced.

## Bilge

Should water be present in the bilge, tilt the watercraft to the rear and unscrew drain plugs to completely empty the bilge.

### ◆ WARNING

Make sure to take the watercraft out of water prior to unscrewing the drain plugs.

Secure bilge drain plugs.

## Battery

### ◆ WARNING

Verify tightness of battery cables and retaining strap(s).

## Fuel and Oil Tanks

With the watercraft horizontal, fill the fuel tank to specified level with fuel.

Check the oil level and refill tank as necessary.

Check fuel/oil tank retaining straps.

## Engine Compartment

### ◆ WARNING

Should any leak or gasoline odor be present, do not start the engine or operate the watercraft. Refer to an authorized dealer immediately.

## Fire Extinguisher

Make sure it is full, in good condition and well secured.

## Steering and Throttle Systems

Assisted by another person, check steering operation for free movement. When the handlebar is horizontal, the jet pump nozzle should be in the straight ahead position. Ensure the jet pump nozzle pivots easily while handlebar is turned.

Check throttle lever ONCE for free and smooth operation. It must return to its initial position immediately after it is released.

### ▼ CAUTION

Engine can be flooded if throttle lever is applied several times. If engine is flooded, it will not start.

## Reverse System (if applicable)

Check reverse gate operation for free movement. With the shift lever in forward position, the gate should be in upward position. Ensure the reverse gate moves easily while shift lever is pulled.

### ◆ WARNING

Verify the reverse gate locking operation before starting the engine.

## Variable Trim System (if applicable)

Push on arrows on VTS button to check nozzle movement.

**NOTE:** With the safety lanyard disconnected, electrical system can be activated for approximately 33 seconds by depressing the engine start/stop button.

## **Safety Lanyard and Engine Start/Stop Button**

Ensure that both switches operate properly. Start engine and stop it using each switch individually.



### **WARNING**

If engine does not shut-off when pushing engine start/stop button or by disconnecting the safety lanyard, stop the engine by applying the choke and turning fuel valve to OFF position. Do not operate the watercraft further, see an authorized dealer.

## **Clothing**



### **WARNING**

Always wear a Coast Guard approved PFD. It is also recommended that gloves, wet suit, and deck shoes/booties be worn when operating the watercraft. In some instances, for example racing or buoy courses, an approved helmet should be worn.

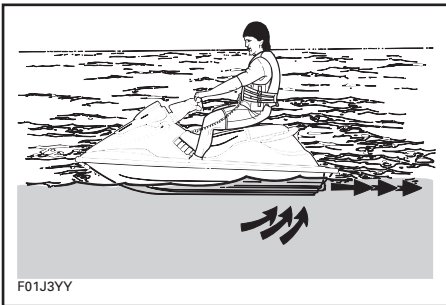
# OPERATING INSTRUCTIONS

## ◆ WARNING

Always perform the PRE-OPERATION CHECKS before operating the watercraft. Become thoroughly familiar with all controls and the function of each. Should any control or instruction not be fully understood, refer to an authorized dealer.

## Principle of Operation Propulsion

The engine is directly coupled to a drive shaft which, in turn, rotates an impeller. This impeller is accurately adjusted in a housing where the water is drawn up from underneath the watercraft. Then the water flows through the impeller to a venturi. The venturi accelerates the water and produces thrust to move the watercraft. Depressing the throttle lever increases engine speed and therefore watercraft speed.



TYPICAL

## ◆ WARNING

Whenever the engine is to be started, the operator and any passenger(s) should always be sitting on the watercraft.

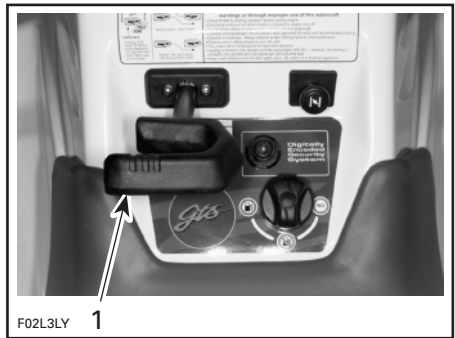
## Neutral and Reverse (if applicable)

Neutral and reverse are obtained by moving a reverse gate, which deviates the thrust of water.

To obtain neutral position, pull shift lever halfway. The reverse gate will be in the middle position, deviating half of the thrust to minimize watercraft movement.

## ◆ WARNING

When the watercraft is in neutral position, the drive shaft and impeller are turning.



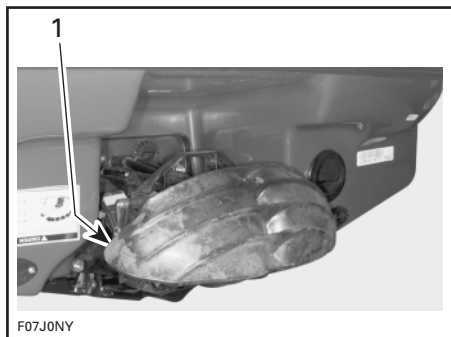
GTS MODEL

1. Shift lever in neutral position



GTI AND GTX LIMITED

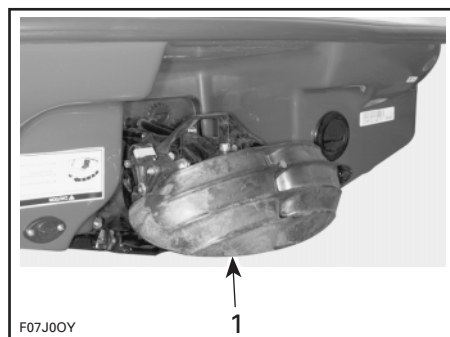
1. Shift lever in neutral position



**TYPICAL**

1. Reverse gate in middle position

To obtain reverse position, pull shift lever completely. The reverse gate will be in downward position, deviating all the thrust toward the front of the watercraft.



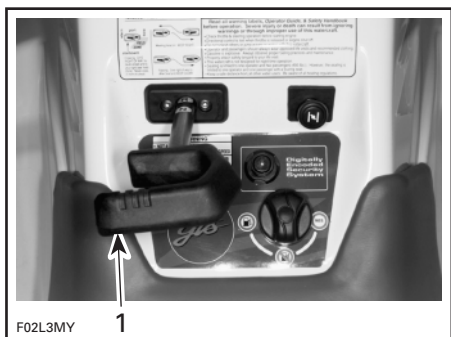
**TYPICAL**

1. Reverse gate in downward position

**NOTE:** To get maximum efficiency and control from the reverse, increase engine speed to just above idle.

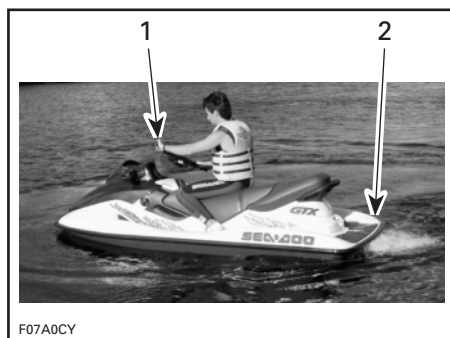
In reverse position, turn the handlebar the opposite direction that you want to move the rear of the watercraft.

For example, to steer the rear of the watercraft to the left side, turn the handlebar to the right side.

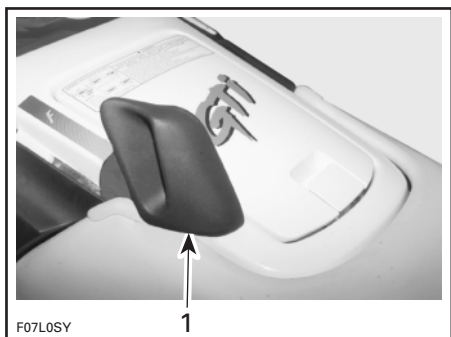


**GTS MODEL**

1. Shift lever in reverse position



1. Handlebar turned to the right side
2. Rear of watercraft moving to the left side



**GTI AND GTX LIMITED**

1. Shift lever in reverse position

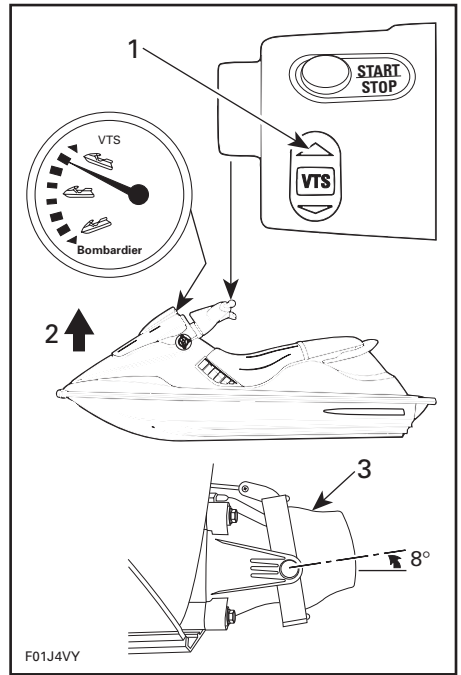
**◆ WARNING**  
Shift lever should only be used when the engine is idling.

## Variable Trim System (if applicable)

The variable trim system (VTS) changes the angle of the jet pump nozzle to provide the operator with a fast, effective system to compensate for load, thrust, riding position and water conditions. Correctly adjusted, it can improve handling, reduce porpoising, and position the watercraft at its best riding angle to attain maximum performance.

When first using the craft, the operator should become familiar with the use of the variable trim system (VTS) at varying speeds and water conditions. A mid-range trim is generally used when cruising. Experience alone will dictate the best trim for the conditions. During the watercraft break-in period, when lower speeds are recommended, it is an excellent opportunity to gain familiarity of trim adjustment and its effects.

When the nozzle is positioned in an upward angle, the water thrust directs the bow of the watercraft upward. This position is used to optimize high speed.



### TYPICAL

1. Push on arrow pointing upward on VTS button
2. Bow up
3. Nozzle up

**NOTE:** Models equipped with an Info Center, VTS position is indicated on a bar graph.

When the nozzle is directed downward, the bow is forced downward and enhances the craft turning capabilities. As with any watercraft, speed and operator body position and movement (body English), will determine the degree and sharpness of the craft turn. Porpoising can be reduced or eliminated if the nozzle is downward and speed adjusted proportionately.



## ◆ WARNING

Directional control is lost when the throttle is closed. Throttle must be applied and handlebar turned to change the direction of the watercraft. Steering efficiency will differ with carrying loads and water conditions.

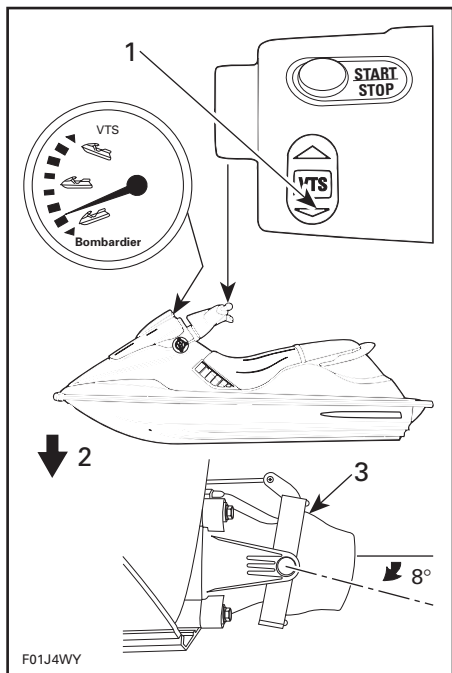
The more the throttle is applied while turning the handlebar, the sharper the turn will be.

The watercraft behaves differently with a passenger and requires greater skill. The passenger should always grip the seat strap or grab handle. Reduce speed and avoid sharp turns. Avoid choppy water conditions when carrying a passenger.

## Boarding from a Dock or in Shallow Water

As with any craft, getting aboard should be done carefully.

When boarding from a dock, slowly place one foot on the watercraft floorboard nearest the dock and, at the same time, transfer the body weight to the other side in order to balance the watercraft while holding the handlebar. Then, bring the other foot over the seat and put it on the other floorboard. Push the watercraft away from the dock.



### TYPICAL

1. Push on arrow pointing downward on VTS button
2. Bow down
3. Nozzle down

## Turning

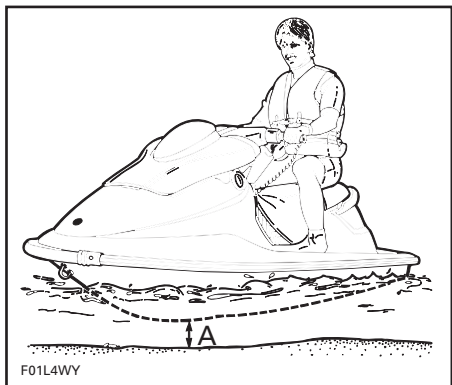


Turning the handlebar pivots the jet pump nozzle which controls the watercraft direction. Turning the handlebar to the right will turn the watercraft to the right and inversely. The throttle must be applied to turn the watercraft.



## ▼ CAUTION

The engine should be started with at least 90 cm (3 ft) of water below the hull.



A. 90 cm (3 ft)

In shallow water, board the watercraft either from the side or the rear.

## ◆ WARNING

An inexperienced operator should practice how to get aboard close to the shore to simulate deep water boarding. See **Boarding in Deep Water** in this section.

## Starting the Engine

Before unloading the watercraft from the trailer, it can be started for about 10 seconds to verify proper operation.

## ◆ WARNING

Do not touch electrical parts or jet pump area when engine is running.

Attach the safety lanyard to the operator's PFD and snap the cap to the switch before starting the engine.

## ◆ WARNING

Only start the watercraft once all controls have been checked and operate properly. Operator and passenger (if applicable) should be sitting on the watercraft seat prior to starting the engine.

## Cold Engine

Turn the fuel valve to ON position.

Firmly grip handlebar with your left hand and place both feet on the floorboard.

Fully pull the choke lever with your right hand and depress the start/stop button.



TYPICAL

1. Fully pulled

Immediately after engine is started, release start/stop button and release choke lever half way.

## ▼ CAUTION

To avoid starter motor overheating, the cranking period should not exceed 5-10 seconds and a rest period should be observed between cranking cycles to let the starter cool down and its mechanism disengage.

A few seconds after, release the choke lever and if necessary, slightly apply throttle to keep engine running.

**Slowly** accelerate to reach deeper water. Do not apply full throttle until the engine is warm.



### ◆ WARNING

In shallow water, shells, sand, pebbles or other objects could be drawn up by the jet pump and damage impeller, components or clog the cooling system. Also, debris could be thrown rearward into bystanders.

### Warm Engine

The same procedure as a cold engine applies, except the choke does not need to be applied and throttle lever has to be slightly depressed.

### Obstacles

Verify that the path ahead of the watercraft is clear of other craft or obstacles. Avoid riding close to swimmers. Check local boating laws for safe operation.

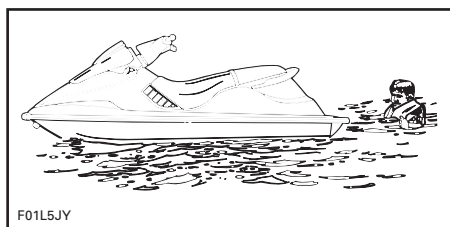
### Boarding in Deep Water

### ◆ WARNING

Inexperienced riders should practice how to get aboard close to shore first before venturing into deep water.

### Operator Alone

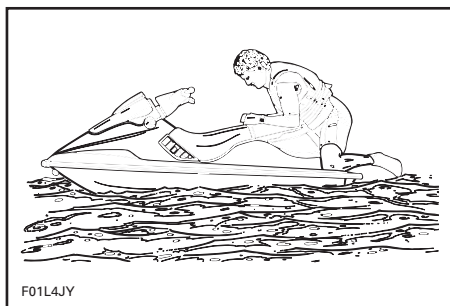
Swim to the rear of the watercraft.



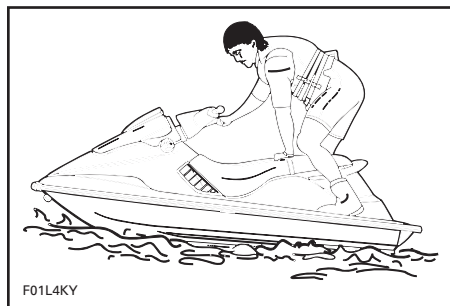
Grip the grab handle and pull yourself upward until your knee can reach the boarding platform then grip the seat strap.

### ▼ CAUTION

Never use jet pump components as a supporting point to board the watercraft.



Bring your feet on the floorboard while maintaining balance using the handlebar (except GT models).

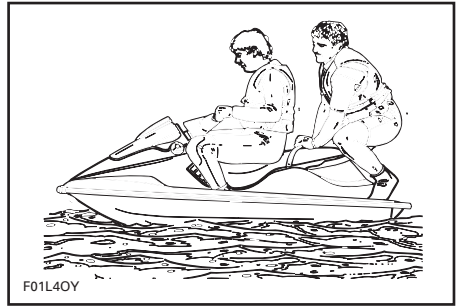


Sit astride the seat.

Attach the safety lanyard to the operator's PFD and snap the cap to the switch before starting the engine. Start the engine.

### Operator with a Passenger

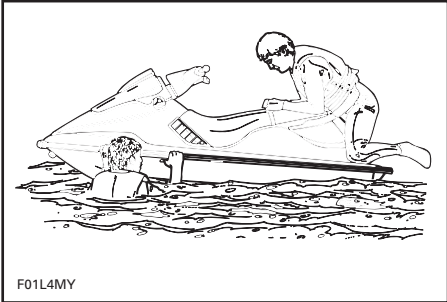
The operator climbs on the watercraft the same way as explained previously. In choppy water, the passenger, while in the water, may hold the watercraft to help the operator in climbing aboard.



Attach the safety lanyard cap to the switch before starting the engine.

**◆ WARNING**

Do not start engine until the passenger(s) are properly seated.



The passenger then climbs on the watercraft while the operator maintains balance by sitting as close as possible to the console.

### Rough/Choppy Water Operation

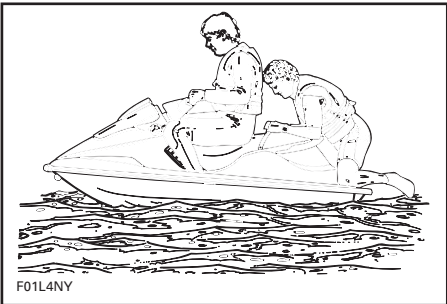
Avoid operation in these conditions. If you must do so, proceed with caution using minimum speed.

### Crossing Waves

Reduce speed.

Always be prepared to steer and balance as necessary.

When crossing wakes, always keep a safe distance from boat ahead.

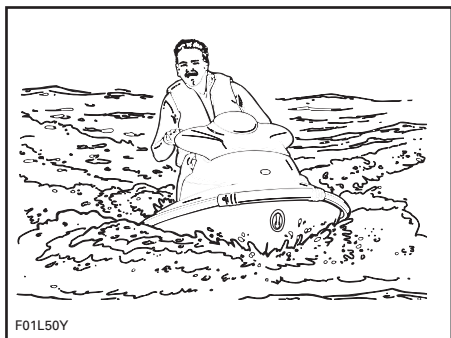


**◆ WARNING**

When crossing wakes, slow down. Operator and passenger(s) can brace themselves by posting. Do not jump waves or wakes.

## Stopping/Docking

The watercraft is slowed by water drag. The stopping distance will vary depending on the watercraft size, carrying weight, water condition, wind and current.



The operator should familiarize himself with the stopping distance under different conditions.

Release the throttle at a sufficient distance before the expected landing area, water resistance slows down the watercraft.

Reduce speed when approaching a dock then shut off the engine just before coming alongside.

### ◆ WARNING

No directional control is available when the throttle is closed or engine is shut off. On GT models, never use the reverse system for stopping the watercraft.

## Beaching

### ▼ CAUTION

It is not recommended to run the watercraft to the beach.

Proceed the same way as for docking except for the following:

Approach the beach slowly and shut off the engine when there is about 90 cm (3 ft) of water under the hull.



### ◆ WARNING

In shallow water, shells, sand, pebbles or other objects could be drawn up by the jet pump and damage impeller, components or clog cooling system. Also, debris could be thrown rearward into bystanders.

Get off watercraft and pull it to the beach.

## Shutting Off the Engine

To keep watercraft directional control, the engine should be running until the watercraft is at idle.

To shut off the engine, completely release throttle lever and press the engine start/stop button. Remove safety lanyard from watercraft.

### ◆ WARNING

Should the engine be shut off, watercraft directional control is not available. Never leave the safety lanyard on an unattended watercraft.

# POST-OPERATION CARE

## General Care

Should any water be present in the hull, unscrew the drain plugs and tilt the watercraft to the rear in order to allow water to flow out.

Wipe up any remaining liquid in the engine compartment (bilge, engine, battery, etc.) with clean dry rags (this is particularly important in salt water use).

Remove the watercraft from the water every day to prevent marine organisms growth.

## Additional Care for Foul Water or Salt Water

When the watercraft is operated in foul water and particularly in salt water, additional care must be taken to protect the watercraft and its components. Rinse bilge area with fresh water.

### ▼ CAUTION

Failure to perform proper care such as: watercraft rinsing, cooling system flushing and anticorrosion treatment, when watercraft is used in salt water, will result in damage to the watercraft and its components. Never leave the watercraft stored in direct sunlight.

## Cooling System Flushing and Engine Internal Lubrication

Flushing the cooling system with fresh water is essential to neutralize corroding effects of salt or other chemical products present in water. It will help to clean up sand, salt, shells or other particles in water jackets (engine, exhaust manifold, tuned pipe) and/or hoses.

Engine lubrication and flushing should be performed when the watercraft is not expected to be used further the same day or when the watercraft is stored for any extended time.

Proceed as follows:

### ◆ WARNING

Perform this operation in a well ventilated area.

Clean jet pump by spraying water in its inlet and outlet and then BOMBARDIER LUBE lubricant.

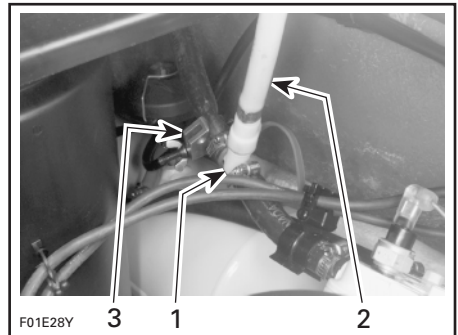
### SPX and GTS Models

Remove seat to allow access to cooling system.

Remove dust cap from fitting spigot and attach coupler hose (P/N 295 500 258). Make sure coupler hose is properly locked to fitting spigot.

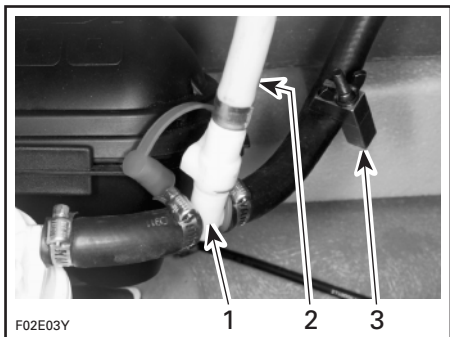
Install a hose pincher on water outlet hose.

**NOTE:** This prevents water from directly exiting cooling system.



### SPX MODEL

1. Fitting spigot
2. Coupler hose
3. Hose pincher



F02E03Y

**GTS MODEL**

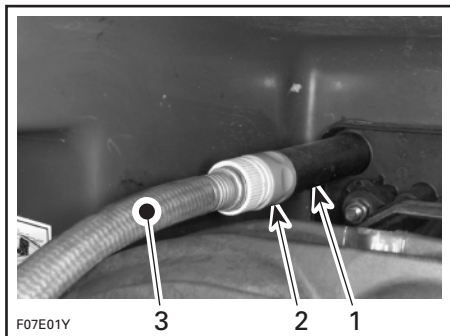
1. Fitting spigot
2. Coupler hose
3. Hose pincher

Attach other end of coupler hose to a garden hose. Do not open water tap yet.

**All Models Except SPX and GTS**

To flush engine, connect a garden hose to connector located at the rear of watercraft near the jet pump.

**NOTE:** A quick connect adapter can be used (P/N 295 500 473). No hose pincher is required to flush engine.



F07E01Y

**TYPICAL**

1. Hose adapter
2. Quick connect adapter (not mandatory)
3. Garden hose

**All Models**

Start the engine then immediately open the water tap.

**WARNING**

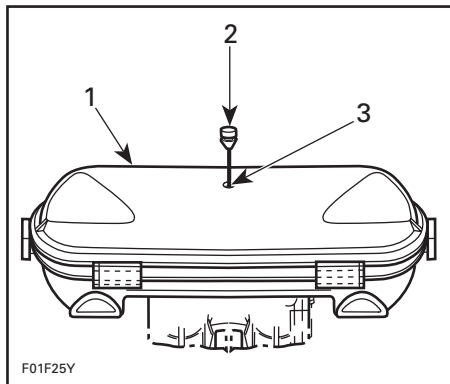
Do not touch any electrical parts or jet pump area when engine is running.

**CAUTION**

Never flush a hot engine. Always start the engine before opening the water tap. Open water tap immediately after engine is started to prevent overheating.

Run the engine about 3 minutes at a fast idle around 3500 RPM.

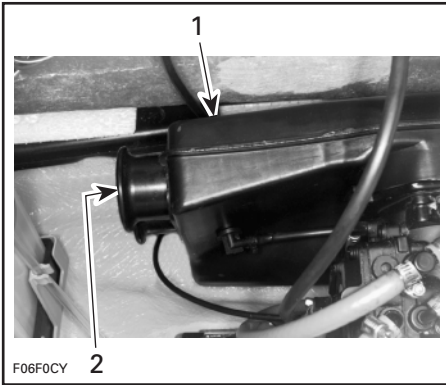
Spray BOMBARDIER LUBE lubricant into air intake silencer keeping engine at fast idle.



F01F25Y

**SPX, GS, GTS AND GTI MODELS**

1. Air intake silencer
2. Pull plug
3. Spray BOMBARDIER LUBE here



**GSX LIMITED, XP LIMITED AND GTX LIMITED**

1. Air intake silencer
2. Spray BOMBARDIER LUBE here

**NOTE:** Lubrication of engine should be done for at least 1 minute. After approximately half a minute, close fuel valve to run engine out of fuel while lubricating.

### ▼ CAUTION

When engine begins to run irregularly because of fuel starvation, immediately stop water flow before engine dies.

Close the water tap then stop the engine.

### ▼ CAUTION

Always close the water tap before stopping the engine.

Disconnect the garden hose.

### **SPX and GTS Models**

Unlock and remove coupler hose. Re-install dust cap over fitting spigot.

Remove hose pincher from water outlet hose.

### ▼ CAUTION

Serious engine damage can occur if hose pincher is not removed.

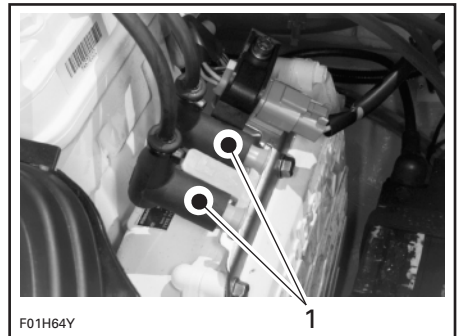
### **All Models**

Wipe up any residual water from the engine.

Remove spark plug cables and connect them on the grounding device.

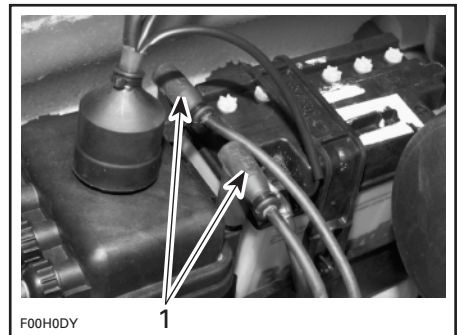
### ◆ WARNING

Always use spark plug cable grounding device when removing spark plugs.



**GTS MODEL**

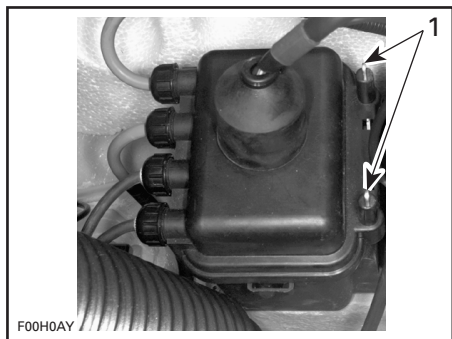
1. Spark plug cables on grounding device



**SPX, GS AND GTI MODELS**

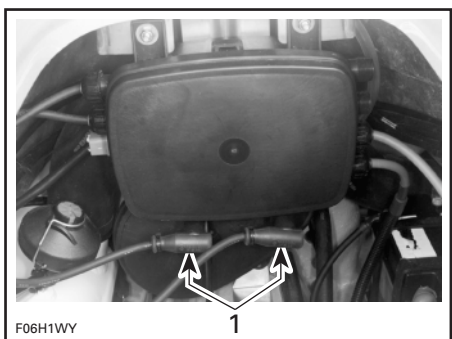
1. Spark plug cables on grounding device





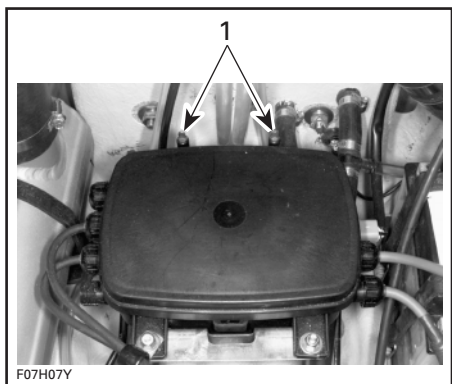
**XP LIMITED**

1. Grounding device



**GSX LIMITED**

1. Spark plug cables on grounding device



**GTX LIMITED**

1. Grounding device

Remove both spark plugs and spray BOMBARDIER LUBE lubricant into each cylinder.

Crank the engine a few turns to distribute the oil onto cylinder wall.

Apply anti-seize lubricant on spark plug threads then reinstall them.

Reinstall plug on air intake silencer cover (SPX, GS, GTS and GTI models).

**NOTE:** Engine fogging should be done with BOMBARDIER LUBE lubricant whenever the watercraft is to be stored for few days or a long period.

### Anticorrosion Treatment

To prevent corrosion, spray a corrosion inhibitor (salt water resistant) such as BOMBARDIER LUBE lubricant or equivalent over metallic components in engine compartment.

Apply dielectric grease (salt water resistant) on battery posts and cable connectors.

 <b>CAUTION</b>
<p>Never leave rags or tools in the engine compartment or in the bilge.</p>

# SPECIAL PROCEDURES

## Engine Overheating

If the monitoring beeper sounds continuously, **stop engine immediately.**

Perform **Jet Pump Water Intake and Impeller Cleaning** procedure shown in this section.

Flush cooling system, refer to POST-OPERATION CARE.

If engine still overheats, refer to an authorized dealer for servicing.

## Jet Pump Water Intake and Impeller Cleaning

Weeds, shells or debris can get caught on the intake grate, drive shaft and/or impeller. A clogged water intake may cause troubles such as:

1. **Cavitation:** Engine speed is high but watercraft moves slowly due to reduced jet thrust, jet pump components may be damaged.
2. **Overheating:** Since the jet pump operation controls the flow of water to cool the engine, a clogged intake will cause the engine to overheat and damage engine internal components.

A weed clogged area can be cleaned as follows:

### In Water Cleaning

Rock the watercraft several times while repeatedly pressing start/stop button for short period without starting engine. Most of the time, this will result in letting the weeds fall from the intake area. Start engine and make sure water flows out from bleed outlet(s) and watercraft operates properly.

## GTS, GTI and GTX Limited

If the aforementioned method does not work, the following can be performed:

- With engine running, put shift lever in reverse position and vary throttle quickly several times.
- Retry.

## On Beach Cleaning

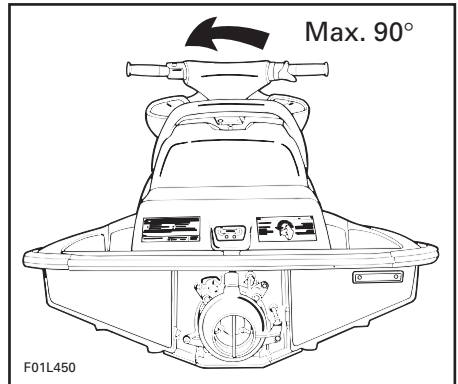
Place a cardboard or a carpet beside the watercraft to prevent scratching when turning the watercraft for cleaning.

### ◆ WARNING

Always remove safety lanyard cap from switch to prevent accidental engine starting before cleaning the jet pump area.

## SPX, GS, GTS and GTI Models

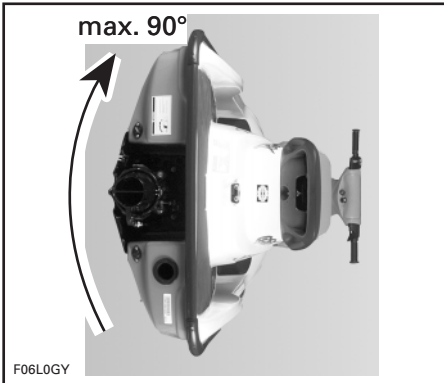
Rotate the watercraft **counterclockwise** (seen from rear) to its **left side** for cleaning. Rotating watercraft counterclockwise eliminates the possibility of residual water in the tuned pipe entering the engine and causing engine damage.



F01L450

## **GSX Limited, XP Limited and GTX Limited**

Rotate the watercraft **clockwise** (seen from rear) to its **right** side for cleaning. Rotating watercraft clockwise eliminates the possibility of residual water in the tuned pipe entering the engine and causing engine damage.



### **All Models**

Clean the water intake area. If the system is still clogged, refer to an authorized dealer for servicing.

#### **▼ CAUTION**

Inspect water intake grate for damage. Refer to an authorized dealer for repair as necessary.

#### **▼ CAUTION**

Avoid watercraft operation in weeded areas. If unavoidable, vary watercraft speed. Weeds tend to entangle more at steady speed and at slow speed.

## **Capsized Watercraft**

### **SPX Model**

The watercraft is designed so that if it is turned over, it should not remain capsized due to its self-righting capability.

After roll over, always tip watercraft counterclockwise (maximum 90°) before restarting engine.

### **All Models Except SPX**

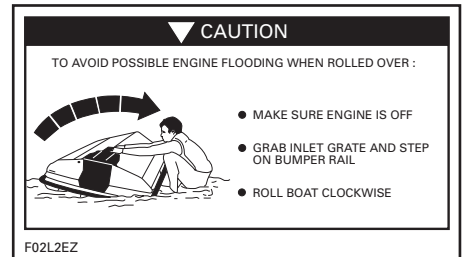
The watercraft is designed so that it should not turn over easily, due to its longer and larger dimensions. Also two sponsons mounted on the side of the hull assist watercraft stability. If it turns over, it will remain capsized due to its non self-righting capability.

### **GS, GTS and GTI Models**

To return the watercraft upright, grab the inlet grate, step on bumper rail and use your weight to rotate it **clockwise** (seen from rear).

#### **▼ CAUTION**

Always refer to decal located on stern of watercraft.

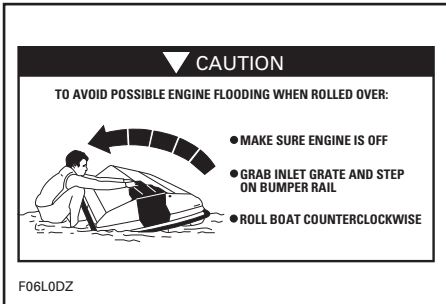


## **GSX Limited, XP Limited and GTX Limited**

To return the watercraft upright, grab the inlet grate, step on bumper rail and use your weight to rotate it counter-clockwise (seen from rear).

### **CAUTION**

Always refer to decal located on stern of watercraft.



## **Submerged Watercraft**

If the watercraft is submerged and engine is water-flooded, it is strongly recommended that the watercraft be serviced by an authorized dealer immediately.

In the event the engine cannot be serviced within a few hours, remove spark plug cables and connect them on the grounding device.

### **WARNING**

Never crank engine with spark plugs removed unless spark plug cables are connected to the grounding device.

Remove spark plugs and dry them with a clean and dry cloth.

Cover spark plug holes with a rag.

Crank engine to allow water to escape from spark plug openings.

Spray BOMBARDIER LUBE lubricant into spark plug holes.

Crank engine again.

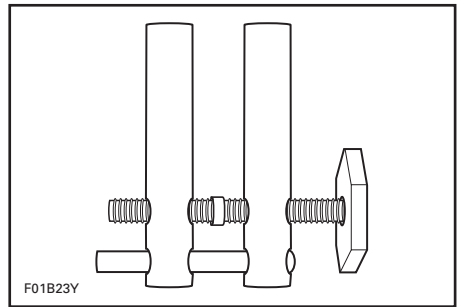
Reinstall spark plugs.

## **Towing the Watercraft in Water**

Special precautions should be taken when towing a Sea-Doo watercraft in water.

Maximum recommended towing speed is 24 km/h (15 MPH).

When towing your watercraft in water, pinch the water supply hose from the impeller housing to the engine with a large hose pincher (P/N 529 030 400) shown in the following illustration.

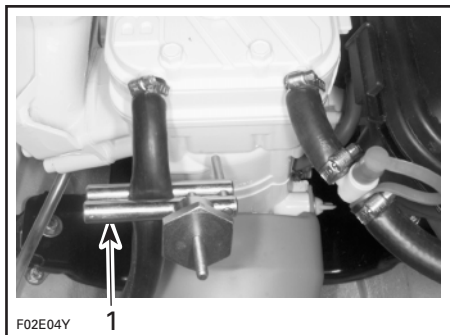


This will prevent the cooling system from filling which may lead to water being injected into and filling the exhaust system. Without the engine running there isn't any exhaust pressure to carry the water out the exhaust outlet.

### **CAUTION**

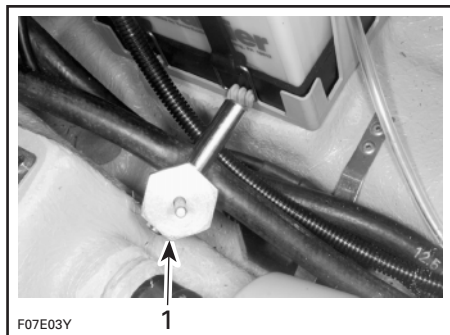
Failure to do this may result in damage to the engine. If you must tow a stranded watercraft in water and do not have a hose pincher be sure to stay well below the maximum towing speed of 24 km/h (15 MPH).

Snugly install the hose pincher on the hose as shown.



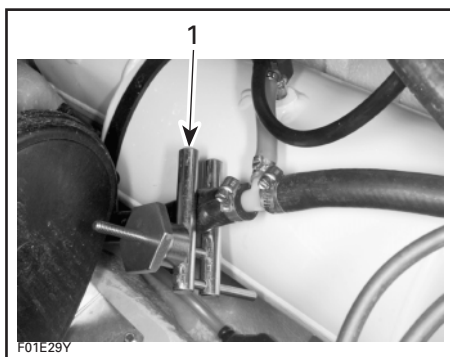
**GS, GTS AND GTI MODELS**

1. Hose pincher



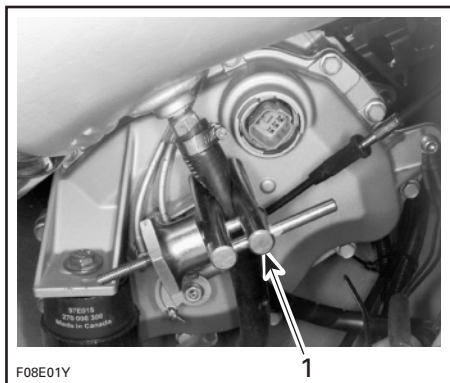
**GSX LIMITED AND GTX LIMITED**

1. Hose pincher



**SPX MODEL**

1. Hose pincher



**XP LIMITED**

1. Hose pincher

**▼ CAUTION**

When finished towing the watercraft, hose pincher must be removed before operating it.

**Low-charge Battery Condition**

See your dealer to have it charged or replaced.

**◆ WARNING**

Do not charge or boost the battery while installed on the watercraft.

# MAINTENANCE

## ◆ WARNING

Only perform procedures as detailed in this Guide. It is recommended that the assistance of an authorized dealer be periodically obtained on other components/systems not covered in this Guide. Unless otherwise specified, engine must not be running and the safety lanyard must be removed for all maintenance procedures.

## Lubrication

Use SEA-DOO synthetic grease and lubricate every 10 hours. Proceed as follows:

Remove seat(s) to expose engine compartment (for the XP Limited, remove rear access panel).

On SPX, GS and GSX Limited, remove vent tube support.

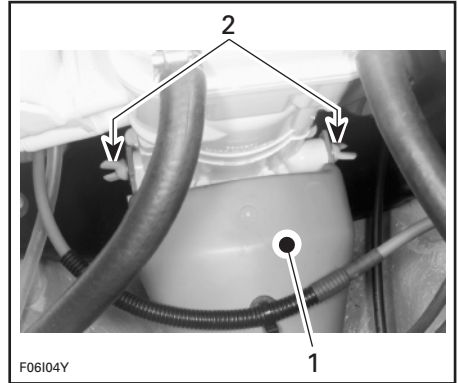
### PTO Flywheel

#### **All Models Except XP Limited**

Remove the wing nuts, washers and pull out PTO flywheel guard.

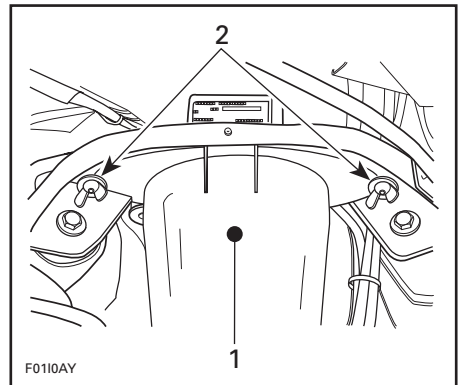
## ◆ WARNING

Always remove safety lanyard cap from its receptacle to prevent accidental engine starting before removing the PTO flywheel guard.



### GS, GTS AND GTI MODELS

1. Flywheel guard
2. Wing nuts



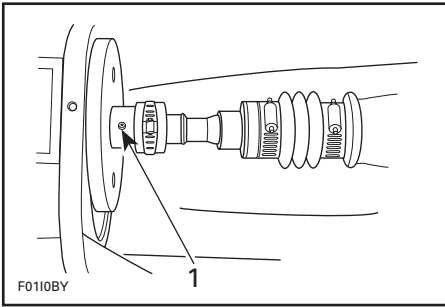
### SPX, GSX LIMITED AND GTX LIMITED

1. Flywheel guard
2. Wing nuts

Using a grease gun, carefully lubricate PTO flywheel at grease fitting until boot is just beginning to expand.

## ▼ CAUTION

Immediately stop lubricating as soon as boot begins to expand.



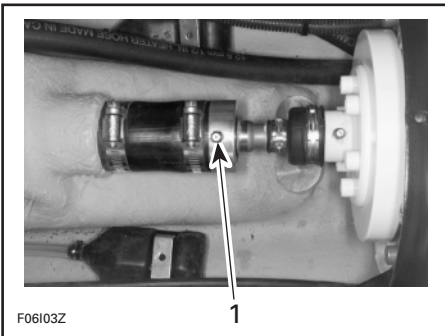
1. Grease PTO flywheel

Secure PTO flywheel guard.

### Seal Carrier

**GSX Limited, XP Limited and GTX Limited**

Using a grease gun, carefully lubricate seal carrier of thru hull fitting until grease is just coming out of seal.

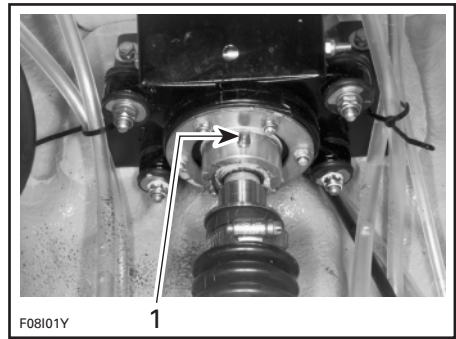


*TYPICAL*

1. Grease seal carrier

### XP Limited

Using a grease gun, carefully lubricate seal carrier of mid bearing until grease is just coming out of seal.



1. Grease seal carrier of mid bearing


### Anticorrosion Protection

#### Throttle/Choke Cables

Lubricate the throttle and choke cables with BOMBARDIER LUBE lubricant every 25 hours (or every 10 hours in salt water use).

#### Electrical Connections

As necessary, apply anticorrosion product such as dielectric grease on battery posts and all exposed cable connectors.

 <b>CAUTION</b>
<p>Do not lubricate connectors of the Multi-Purpose Electronic Module.</p>

#### Additional Lubrication

BOMBARDIER LUBE lubricant will help to prevent corrosion and keep proper operation of moving mechanisms.

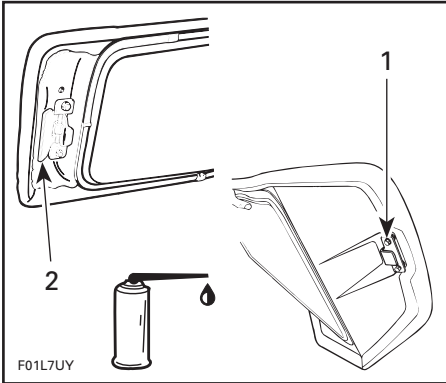
Lubrication of the following items should be performed every 50 hours in fresh water use but every 10 hours in salt water use.

## Choke Lever

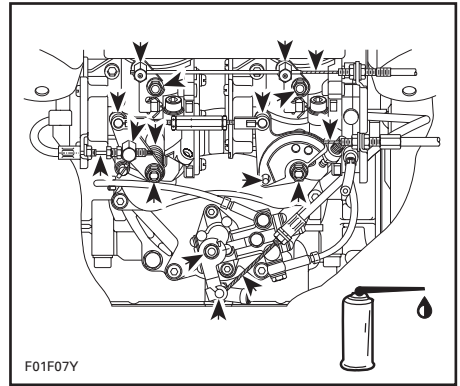
Fully pull choke lever and lubricate the metallic portion.

## Seat Opening Mechanism, Tab, Hook and Lock Pin

### All Models Except XP Limited



1. Front tab
2. Rear mechanism



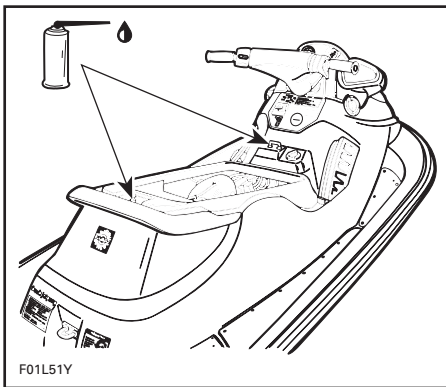
TYPICAL

## Reverse System

### GTS Model

Lubricate support plate sliding area of sliding block and triangular lever with synthetic grease.

Also lubricate sliding washer and shift lever stem.

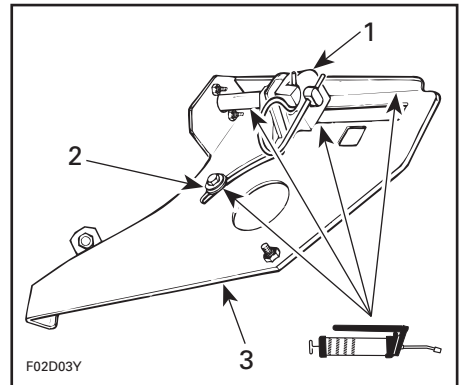


TYPICAL

## Carburetor and Oil Injection Pump

Lubricate springs, shafts and exposed portion of cables.

**NOTE:** Grease carburetor linkage with synthetic grease (twin carbs).



1. Sliding block
2. Sliding washer
3. Support plate



## **Periodic Inspection**

Routine maintenance is necessary for all mechanized products. A periodic inspection contributes to the product's life span.

The following maintenance chart gives guidelines for regular watercraft servicing scheduled to be performed by you and/or by an authorized dealer. The schedule can be adjusted according to operating conditions and use.

**IMPORTANT:** Schedule for watercraft rental operations or higher number of hour use, will require greater frequency of inspection and maintenance.

## Periodic Inspection Chart

DESCRIPTION	FREQUENCY				To be performed by
	every 10 hours	every 25 hours	every 50 hours	every 100 hours or seasonally	
Lubrication/corrosion protection	①		✓		OPERATOR
Engine ignition timing				✓	DEALER
Spark plug replacement			✓		DEALER
Throttle/choke cables, inspection/lubrication	①	✓			OPERATOR
Carburetor adjustment including choke/throttle cable adjustments				✓	DEALER
Oil injection pump adjustment				✓	DEALER
Fuel filter and oil filter inspection		✓			DEALER
Fuel filter and oil filter replacement				✓	DEALER
Fuel tank straps	✓				OPERATOR
Oil tank straps	✓				OPERATOR
Engine head bolts, retorque				✓	DEALER
Engine counterbalance shaft oil level (if applicable)				✓	DEALER
Steering system			✓		DEALER
Reverse system/reverse cable adjustment (if applicable)				✓	DEALER
Variable Trim System (if applicable)			✓		DEALER
Fastener tightening (flame arrester, carburetor(s), engine mount, exhaust system, etc.)			✓		DEALER
Muffler, battery and reservoir fastening devices			✓		OPERATOR
Fuel lines, check-valve and <b>fuel system pressurization</b>	✓	✓	✓	✓	DEALER
Fuel vent line pressure relief valve inspection		✓			DEALER
Inspect/clean engine drain tube	①	✓			DEALER
Water tank trap drains inspection (GTS model)			✓		OPERATOR
Battery condition			✓		DEALER
Electrical connections (battery, starter, etc.)		✓			DEALER
Monitoring beeper			✓		DEALER
Jet pump reservoir oil level/oil condition		✓		Replace	DEALER
Jet pump cover pusher inspection				✓	DEALER
Impeller condition and impeller/wear ring clearance			✓ ②		DEALER
Drive shaft boot and spline condition (if applicable)			✓ ②		DEALER
PTO flywheel and seal carrier lubrication (if applicable)	✓				OPERATOR
Water intake grate condition			✓ ②		OPERATOR
Hull condition				✓	OPERATOR
Cooling system flushing		✓ ③			OPERATOR

**NOTE:** Some items are included in the PRE-OPERATION CHECKS and not necessarily repeated in this chart.

① Every 10 hours in salt water use.

② These items have to be initially checked after 25 hours. Thereafter, servicing to be made as specified in this chart.

③ Daily flushing in salt water or foul water use.

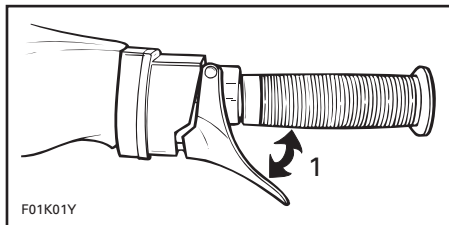
## Throttle and Choke Cable Inspection

### Throttle Cable

Depress and release the throttle lever **ONCE**. It must operate smoothly and return to its initial position without any hesitation. Refer to an authorized dealer if necessary.

#### ◆ WARNING

If throttle lever does not automatically return, do not operate watercraft and see your dealer.



1. Must move freely

### Choke Cable Inspection

Ensure it operates smoothly and without any hesitation from fully open to fully closed. When the choke lever is fully pulled, choke must be fully applied. Refer to an authorized dealer if necessary.

### Carburetor Adjustment

Carburetor adjustment is very important to allow good engine operation and therefore watercraft performance. Carburetor adjustment requires technical knowledge and experience to have the correct mixture supplied to the engine. This critical adjustment must be performed by an authorized dealer once a year or more often if necessary.

#### ▼ CAUTION

Serious engine damage can occur with improper carburetor adjustment.

### Fuel and Oil Filters

These filters should be replaced by an authorized dealer annually. Fuel system pressurization should be conducted at the same time.

#### ▼ CAUTION

An obstructed oil filter will cause oil starvation resulting in serious engine damage.

### Steering Alignment

When the handlebar is aimed in straight ahead position, the jet pump nozzle should be in the same direction allowing the watercraft to run in a straight line.

Refer to an authorized dealer if an adjustment is necessary.

#### ◆ WARNING

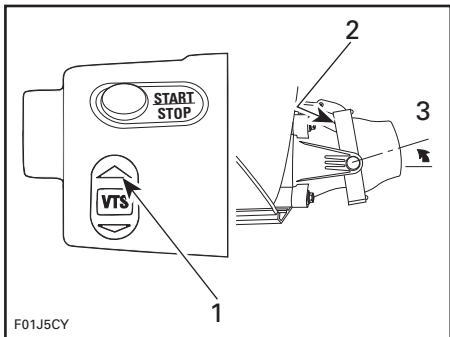
Ensure the handlebar/jet pump nozzle operate freely from side to side and are not stressing the steering cable and/or bracket.

Steering system should be inspected every 50 hours by an authorized dealer.

### VTS Adjustment

#### **SPX, GSX Limited and XP Limited**

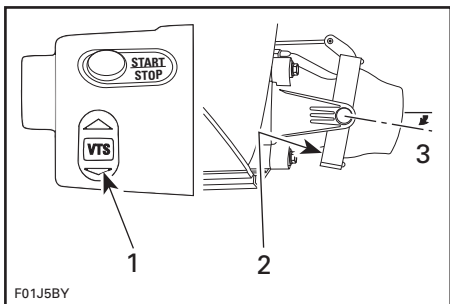
Push on arrow pointing upward on VTS button until the VTS stops. The nozzle should be up without interfering with the venturi.



**TYPICAL**

1. Push on arrow pointing upward on VTS button
2. No interference
3. Nozzle up

Push on arrow pointing downward on VTS button until VTS stops. The nozzle must be down and it must not interfere with the venturi.



1. Push on arrow pointing downward on VTS button
2. No interference
3. Nozzle down

If VTS needs to be readjusted, refer to an authorized dealer.

**CAUTION**

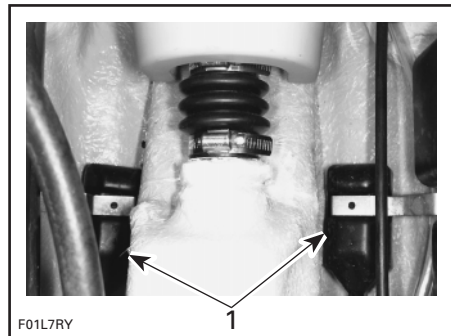
Trim ring and/or nozzle must not interfere at any position.

## Vacuum Bailer Pick-Ups

They are located each side of the drive shaft tunnel.

Two pick-ups use a low pressure area in the jet pump to siphon the water out of the bilge.

Inspect each pick-up screen for obstructions, clean as necessary.



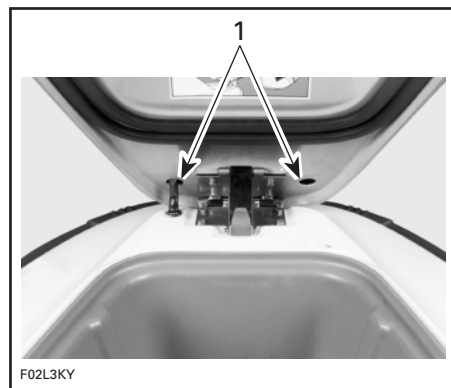
**TYPICAL**

1. Vacuum bailer pick-ups

## Water Tank Trap Drains

### GTS Model

Open storage cover and check for possible obstructions at drain outlets.



1. Outlets

# Fuses

## SPX Model

The electrical system is protected with 4 fuses.

Two 15 A fuses protect the charging system. One fuse is mounted on the MPEM located in the front electrical box and the other one is in the rear electrical box. If the battery is regularly discharged, check fuses.

A 5 A fuse protects the starting system, accessories and controls. The fuse is mounted on the MPEM located in the front electrical box. If the starter does not operate, check condition of this fuse.

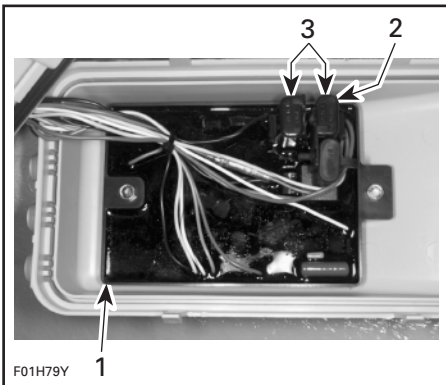
A 7.5 A fuse protects the variable trim system (VTS). The fuse is located in the rear electrical box.

To access fuses in the front electrical box, open storage compartment cover and remove basket.

Unplug connectors of the front electrical box.

Unclip the electrical box from its seat and remove it.

Open the electrical box.



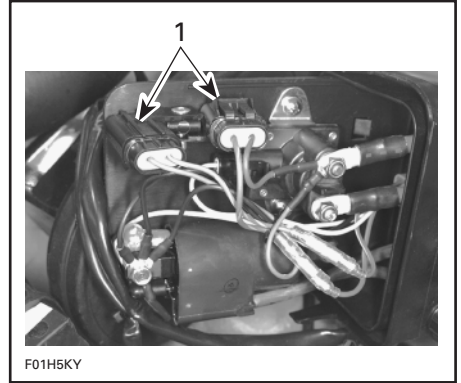
**FRONT ELECTRICAL BOX OPENED**

1. MPEM
2. Spare fuse holder
3. Fuse caps

Remove fuse caps to check fuse condition.

To access fuses in the rear electrical box, remove seat and vent tube support.

Unclip cover of rear electrical box and move cover beside box.



**REAR ELECTRICAL BOX OPENED**

1. Fuse holders

Unclip and pull out fuse connector to check fuse condition.

## GTS Model

The electrical system is protected with 2 fuses.

A 15 A fuse protects the charging system. If the battery is regularly discharged, check fuse condition.

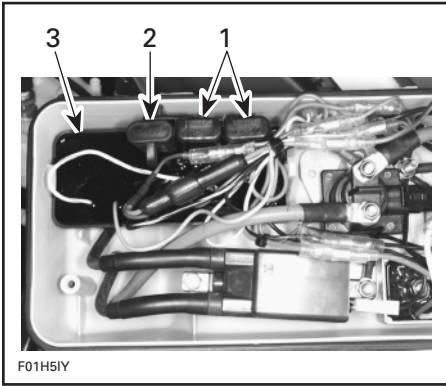
A 5 A fuse protects the starting system, accessories and controls. If starter does not operate, check fuse condition.

Fuses are located in the electrical box, mounted on the MPEM.

To access fuses, unclip and move away electrical box from its seat.

Open the electrical box.

Remove fuse caps.



1. Fuse caps
2. Spare fuse holder
3. MPEM

If defective, replace the fuse by one of the same rating. Make sure to properly close the fuse cap.

Properly close the electrical box cover making sure its seal is well positioned.

**All Models Except SPX and GTS**

Two 15 A fuses protect the charging system. One fuse is mounted on the MPEM located in the front of the watercraft and the other one is in the electrical box. If the battery is regularly discharged, check fuses.

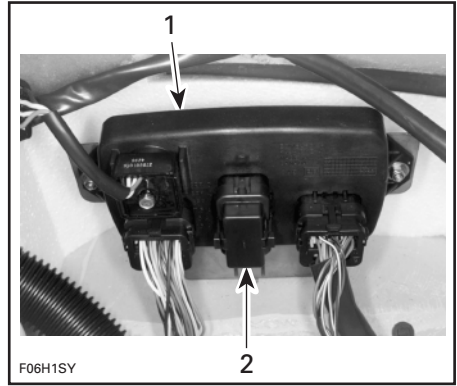
A 5 A fuse protects the starting system, accessories and controls. The fuse is mounted on the MPEM located in the front of the watercraft. If the starter does not operate, check condition of this fuse.

A 7.5 A fuse protects the variable trim system (if applicable). The fuse is mounted on the MPEM.

To access fuses on the MPEM, open storage compartment cover (engine cover for the XP Limited) and remove storage basket.

Locate MPEM on the left side of watercraft.

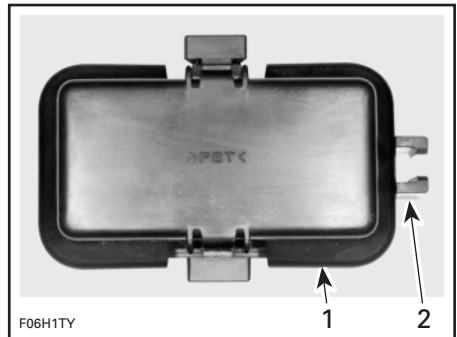
Remove fuse cover from the MPEM.



**TYPICAL**

1. MPEM
2. Fuse cover

Use the tabs of the fuse cover to remove and reinstall fuses.



1. Fuse cover
2. Fuse tabs

To access fuse in the electrical box, proceed as follows:

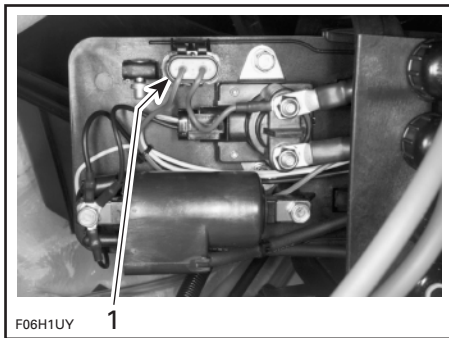
Open the engine cover and remove storage basket (XP Limited).

Remove seat (except XP Limited).

Remove vent tube support (GS and GSX Limited).

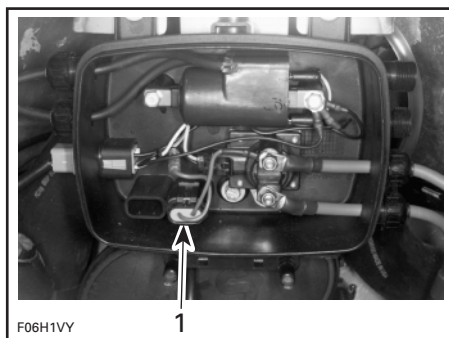
Locate the electrical box.

Unclip and remove cover of the electrical box.



GS, XP LIMITED AND GTI MODELS

1. Fuse holder



GSX LIMITED AND GTX LIMITED

1. Fuse holder

### All Models

If defective, replace the fuse by one of the same rating.

## ▼ CAUTION

Do not use a higher rated fuse as this can cause severe damage. Refer to SPECIFICATIONS section for recommended fuse rating. If a fuse is regularly burnt, refer to an authorized dealer.

## ◆ WARNING

If any water is found in the electrical box(es), immediately refer to an authorized dealer before operating the watercraft.

## General Inspection and Care

### Inspection

Check engine compartment for any damage and fuel/oil injection systems for leaks. Ensure all hose clamps are properly secured and no hose is cracked, kinked or presenting any other damage.

## ◆ WARNING

If any gasoline leak or odor is found, do not start the engine. Have the watercraft serviced by an authorized dealer.

Inspect muffler, battery and fuel/oil tank fastening devices. Check electrical connections for corrosion and tightness.

Inspect hull and jet pump water intake grate for damage. Replace or have damaged parts repaired. It is recommended that an authorized dealer annually inspect the hull condition.

### Care

Twice a year, the bilge should be cleaned with hot water and detergent or bilge cleaner to remove any possible fuel/oil/electrolyte deposits and mildew.

Occasionally, wash the body with water and soap (only use mild detergent). Remove any marine organisms from engine and/or hull. Apply non-abrasive wax such as silicone wax.

## ▼ CAUTION

Never clean apparent fiberglass and plastic parts with strong detergent, degreasing agent, paint thinner, acetone, etc.

# TRANSPORTATION, STORAGE AND PRE-SEASON PREPARATION

## Transportation

### ◆ WARNING

Always turn the fuel valve to OFF position when transporting or docking the watercraft.

Tie the watercraft to both bow and stern (front/rear) eyelets so that it is firmly retained on the trailer. Use additional tie-downs if necessary.

### ▼ CAUTION

Do not route ropes or tie-downs over the seat as they could produce permanent damage. Wrap ropes or tie-downs with rags or similar protectors where they can touch the watercraft body.

### *All Models Except XP Limited*

Ensure seat and storage cover are properly latched.

### *XP Limited*

Ensure engine cover is properly latched.

### *All Models*

A SEA-DOO cover should protect the watercraft, particularly before driving on dirt roads, to prevent dirt entry through the air intake opening(s).

Observe trailering safety precautions.

## Storage

It is recommended that the watercraft be serviced by an authorized dealer for storage but the following operations can be performed by you with a minimum of tools.

### ▼ CAUTION

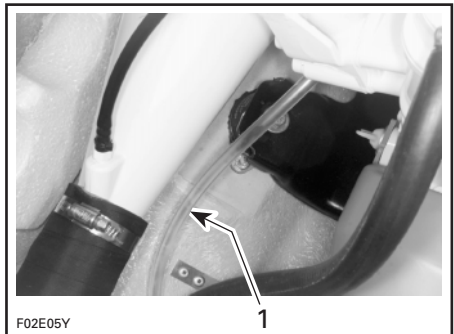
Do not run the engine during the storage period.

## Engine Draining

Check engine drain hose (lowest hose of engine). Make sure there is no sand or other particles in it and that it is not obstructed so that water can leave the engine. Clean hose and fitting as necessary.

### ▼ CAUTION

Water in engine drain hose must be free to flow out, otherwise water could be trapped in engine. Should water freeze in engine, severe damage will occur. Check engine drain hose for obstructions.



TYPICAL

1. Engine drain hose



## Watercraft Rinsing

Thoroughly rinse the watercraft hull, bilge, engine compartment, with fresh water.

## Propulsion System

Lubricant in jet pump reservoir should be drained and reservoir cleaned. Refill with SEA-DOO synthetic polyolester oil (75W90 GL5 type C gear lube). Refer to an authorized dealer for this operation.

### ▼ CAUTION

Use only SEA-DOO jet pump oil or equivalent synthetic gear oil, otherwise component service life could be reduced. Do not mix oil brands or types.

Grease lubrication point(s) of propulsion system as explained in MAINTENANCE section.

## Fuel System

SEA-DOO fuel stabilizer (or equivalent), can be added in fuel tank to prevent fuel deterioration and carburetor gumming. Follow manufacturer's instructions for proper use.

### ▼ CAUTION

Fuel stabilizer should be added prior to engine lubrication to ensure carburetor protection against varnish deposits.

### ◆ WARNING

Fuel is flammable and explosive under certain conditions. Always work in a well ventilated area. Always wipe off any fuel spillage from the watercraft. Always turn the fuel valve to OFF position when storing the watercraft.

## Cooling System Flushing and Engine Internal Lubrication

Refer to procedure in POST-OPERATION CARE.

## Battery

Contact your authorized dealer or refer to the appropriate *Shop Manual* for proper storage procedure.

## Anticorrosion Treatment

Wipe off any residual water in the engine compartment.

Spray BOMBARDIER LUBE lubricant over metallic components in engine compartment.

## Additional Recommended Protection

In cool regions (where freezing point may be encountered), cooling system should be filled with an equal part of water and antifreeze solution.

### ▼ CAUTION

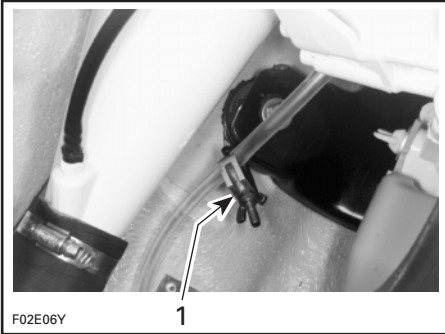
During winter storage in cold climates (where freezing may occur), always add antifreeze and water solution to cooling system. Mix in equal parts.

### ▼ CAUTION

Always use ethylene glycol antifreeze containing corrosion inhibitors specifically recommended for aluminum engines.

### **SPX and GTS Models**

Install a hose pincher to engine drain hose near the PTO flywheel guard.

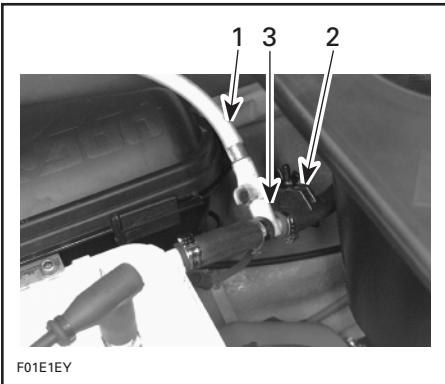


**TYPICAL**

1. Hose pincher installed on engine drain hose

Install coupler hose to fitting spigot.

Install a hose pincher to engine water outlet hose (beside fitting spigot).



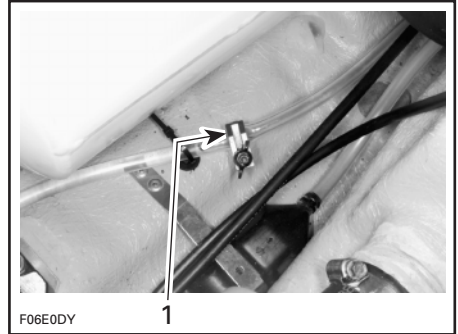
1. Coupler hose
2. Hose pincher
3. Fitting spigot

Pour the antifreeze slowly mixed with water in coupler hose until the colored solution appears in the engine drain hose.

Remove hose pincher.

### **All Models Except SPX and GTS**

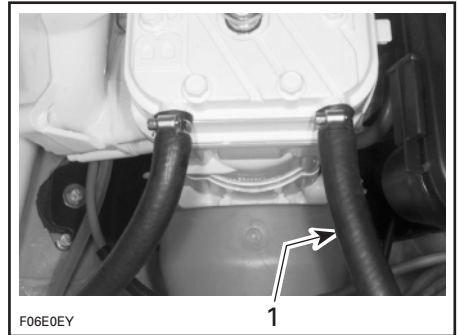
Install a hose pincher to engine drain hose.



**TYPICAL**

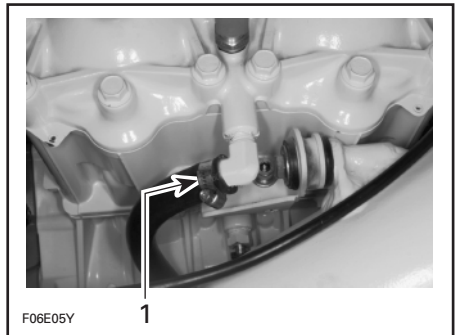
1. Hose pincher installed on engine drain hose

Disconnect engine water outlet hose.



**717 AND 787 ENGINES**

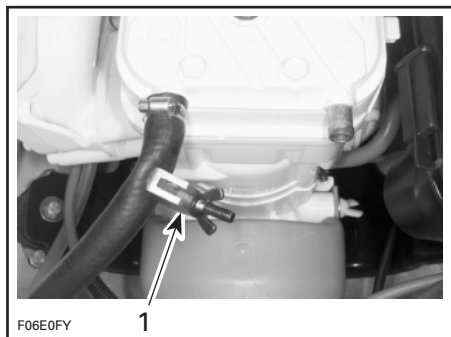
1. Disconnect engine water outlet hose



**947 ENGINE**

1. Disconnect engine water outlet hose

Install a hose pincher to engine water inlet hose (except the 947 engine).



### 717 AND 787 ENGINES

1. *Hose pincher installed on the engine water inlet hose*

Temporarily install a short piece of hose to engine water outlet at cylinder head.

Insert a funnel into hose and pour antifreeze mixed with water in engine until the colored solution appears in the engine drain hose.

Remove temporary hose and reconnect engine water outlet hose.

Remove hose pinchers.

### All Models

Most of the antifreeze will drain out when removing the hose pincher(s). Use a container to recover it. **DISPOSE OF ANTIFREEZE AS PER YOUR LOCAL LAWS AND REGULATIONS.**

**NOTE:** Although antifreeze will mainly drain out, the antifreeze has mixed with the water that was possibly trapped in the cylinder water jackets and thus preventing freezing problems.

At pre-season preparation, drain the remaining antifreeze from cooling system prior using the watercraft.

The following steps should be performed to provide the watercraft enhanced protection.

Lubricate the throttle cable with BOMBARDIER LUBE lubricant.

Clean the bilge with hot water and detergent or with bilge cleaner. Rinse thoroughly. Lift front end of watercraft to completely drain bilge. If any repairs are needed to body or to the hull contact your dealer. For paint touch up to mechanical parts use Bombardier spray paint. For small gelcoat repairs, a Bombardier repair kit is available. See ACCESSORIES AND SERVICE PRODUCTS section. Replace damaged labels/decals.

**NOTE:** Bilge cleaning should be done prior to anticorrosion treatment.

Wash the body with soap and water solution (only use mild detergent). Rinse thoroughly with fresh water. Remove marine organisms from the hull. Apply a good quality marine wax.

### ▼ CAUTION

**Never clean apparent fiberglass and plastic parts with strong detergent, degreasing agent, paint thinner, acetone, etc.**

If the watercraft is to be stored outside, cover it with an opaque tarpaulin to prevent sun rays and grime from affecting the plastic components, watercraft finish as well as preventing dust accumulation.

### ▼ CAUTION

**The watercraft must never be left in water for storage. Never leave the watercraft stored in direct sunlight.**

The seat should be partially left opened during storage (rear access cover for the XP Limited). This will avoid engine compartment condensation and possible corrosion.

## Pre-Season Preparation

Use the following chart.

Since technical skills and special tools are required, some operations should be performed by an authorized dealer.



### **WARNING**

Observe all WARNINGS and CAUTIONS mentioned throughout this guide which are pertinent to the item being checked. When component conditions seem less than satisfactory, replace with genuine BOMBARDIER parts or approved equivalents.

## Pre-Season Preparation Chart

NOTE: It is highly recommended that the dealer perform the annual safety inspection and factory campaigns in addition to the pre-season preparation all at the same time.

OPERATIONS	To be performed by
Lubrication/corrosion protection	OPERATOR
Battery condition/charging and reinstallation	DEALER
Battery, starter connections and routing ②	DEALER
Spark plug replacement ①	OPERATOR
Jet pump oil inspection	DEALER
Propulsion system inspection	DEALER
Oil filter replacement	DEALER
Fuel tank straps	OPERATOR
Oil tank straps	OPERATOR
Oil injection tank filling	OPERATOR
Flame arrester inspection ②	DEALER
Fuel filter replacement	DEALER
Fuel line condition ②	DEALER
Filler neck, fuel tank and fuel cap condition ②	DEALER
Check valves, fasteners, <b>fuel system pressurization</b> ②	DEALER
Throttle ② and choke cable inspection/adjustment	DEALER
Oil injection pump adjustment and bleeding	DEALER
Engine ignition timing	DEALER
Carburetor adjustment	DEALER
Steering system adjustment/inspection ②	DEALER
Reverse cable adjustment (if applicable)	DEALER
Inspection of bailer pick-ups	DEALER
Inspection of cooling system hoses	DEALER
Monitoring beeper	DEALER
Digitally encoded security system	DEALER

① Before installing new spark plugs, it is suggested to burn the excess BOMBARDIER LUBE lubricant by starting the engine using the old spark plugs.

② Safety item covered in the annual safety inspection.

# TROUBLESHOOTING

## Monitoring Beeper Coded Signals

The following chart is provided to help in diagnosing the probable source of simple troubles. You may be able to solve many of these problems rather quickly, but others may require the skills of a mechanical technician. In such cases, consult an authorized dealer for servicing.

CODED SIGNALS	POSSIBLE CAUSE	REMEDY
2 short beeps (while installing safety lanyard on switch).	<ul style="list-style-type: none"> <li>• Confirms safety lanyard signal operation.</li> </ul>	Engine can be started.
1 long beep (while installing safety lanyard on craft switch or when pressing start/stop button).	<ul style="list-style-type: none"> <li>• Safety lanyard on switch for more than 10 minutes without starting engine.</li> <li>• Bad connection.</li> <li>• Wrong safety lanyard.</li> <li>• Defective safety lanyard.</li> <li>• Salt water in safety lanyard cap.</li> <li>• Improper operation of MPEM or defective wiring harness.</li> </ul>	<p>Remove and reinstall safety lanyard on switch.</p> <p>Reinstall safety lanyard cap correctly over switch.</p> <p>Use a safety lanyard that has been programmed for the craft.</p> <p>Use another programmed safety lanyard.</p> <p>Clean safety lanyard cap to remove salt water.</p> <p>Refer to an authorized dealer.</p>
8 short beeps.	<ul style="list-style-type: none"> <li>• Defective MPEM.</li> </ul>	Refer to an authorized dealer.
Continuously beeps.	<ul style="list-style-type: none"> <li>• Engine overheats.</li> </ul>	See ENGINE OVERHEATING.

## Engine will not Start

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Engine does not turn over.	<ul style="list-style-type: none"> <li>• Safety lanyard removed.</li> <li>• Burnt fuse.</li> <li>• Discharged battery.</li> <li>• Battery connections, corroded or loose.</li> <li>• Water flooded engine.</li> </ul>	<p>Install cap over switch.</p> <p>Check wiring then replace fuse.</p> <p>Refer to an authorized dealer.</p> <p>Refer to an authorized dealer.</p> <p>Refer to <b>Submerged Watercraft</b> in SPECIAL PROCEDURES.</p>
Engine turns slowly.	<ul style="list-style-type: none"> <li>• Discharged or weak battery.</li> </ul>	Refer to an authorized dealer.
Engine turns normally.	<ul style="list-style-type: none"> <li>• Close fuel valve.</li> <li>• Fuel tank empty or water-contaminated.</li> <li>• Fuel filter clogged or water-contaminated.</li> <li>• Fouled/defective spark plugs.</li> <li>• Misuse of choke.</li> <li>• Fuel flooded engine.</li> </ul>	<p>Turn fuel valve to ON position.</p> <p>Refill. Syphon and fill with fresh fuel.</p> <p>Clean, check fuel tank for water.</p> <p>Replace.</p> <p>Use only with cold engine. Replace spark plugs.</p> <p>Replace spark plugs.</p>

## Engine Misfires, Runs Irregularly

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Weak spark.	<ul style="list-style-type: none"> <li>• Fouled/defective/worn spark plugs.</li> <li>• Faulty rev limiter.</li> <li>• Too much oil supplied to engine.</li> </ul>	Replace.  Refer to an authorized dealer.  Improper oil pump adjustment, refer to an authorized dealer.
Lean fuel mixture.	<ul style="list-style-type: none"> <li>• Fuel: Level too low, stale or water-contaminated.</li> <li>• Fuel filter, clogged or water-contaminated.</li> <li>• Fuel valve partially open.</li> </ul>	Syphon and/or refill.  Refer to an authorized dealer.  Turn fuel valve to ON position.
Rich fuel mixture (high fuel consumption).	<ul style="list-style-type: none"> <li>• Flame arrester dirty/clogged.</li> <li>• Partially closed choke.</li> </ul>	Clean or replace.  Refer to an authorized dealer.

## Engine Overheats

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Monitoring beeper sounds continuously.	<ul style="list-style-type: none"> <li>• Clogged jet pump water intake.</li> <li>• Clogged coolant system.</li> </ul>	Clean.  Flush cooling system with coupler hose.

## Engine Continually Backfires

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Weak spark.	<ul style="list-style-type: none"> <li>• Fouled/defective/worn spark plugs.</li> </ul>	Replace.
Overheated engine.	<ul style="list-style-type: none"> <li>• See ENGINE OVERHEATS.</li> <li>• Faulty rev limiter.</li> </ul>	Refer to an authorized dealer.

## Engine Pinging or Knocking

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
	<ul style="list-style-type: none"> <li>• Poor quality gasoline/low octane.</li> <li>• Spark plug heat range too high.</li> <li>• Ignition timing.</li> </ul>	Use well known quality and recommended gasoline.  Use recommended spark plugs.  Refer to an authorized dealer.

## Engine Lacks Acceleration or Power

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
	<ul style="list-style-type: none"> <li>• Weak spark/incorrect fuel mixture.</li> </ul>	Refer to ENGINE MISFIRES, RUNS IRREGULARLY.
	<ul style="list-style-type: none"> <li>• Water in fuel or injection oil.</li> </ul>	Syphon and replace.
Overheated engine.	<ul style="list-style-type: none"> <li>• See ENGINE OVERHEATS.</li> </ul>	

## Watercraft Can Not Reach Top Speed

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Cavitation.	<ul style="list-style-type: none"><li>• Jet pump water intake clogged.</li><li>• Damaged impeller.</li></ul>	Clean. Replace. Refer to an authorized dealer.

## Abnormal Noise from Propulsion System

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Cavitation.	<ul style="list-style-type: none"><li>• Weeds or debris jammed around impeller.</li><li>• Damaged impeller shaft or drive shaft.</li></ul>	Clean and check for damage. Refer to an authorized dealer.



# SPECIFICATIONS

<b>ENGINE</b>		<b>SPX (5838/5839)</b>
Engine type		Rotax 787, 2-stroke
Induction type		Rotary valve
Exhaust system		Water cooled/water injected with regulator
Exhaust valve		RAVE
Lubrication	Type	Oil injection
	Oil type	BOMBARDIER ROTAX injection oil
Number of cylinders		2
Displacement		781.6 cm <sup>3</sup> (47.7 in <sup>3</sup> )
Rev limiter setting		7200 RPM ± 50
<b>COOLING</b>		
Type		Water cooled, total loss type. Direct flow from propulsion unit.
<b>ELECTRICAL</b>		
Magneto generator output		180 W @ 6000 RPM
Ignition system type		Digital DC-CDI
Spark plug	Make and type	NGK, BR8ES
	Gap	0.5 - 0.6 mm (.020 - .024 in)
Starting system		Electric starter
Battery		12 V, 19 A
Fuse	Starting system	5 A
	Charging system	2 x 15 A
	VTS system	7.5 A
<b>CARBURETION</b>		
Fuel type		Regular unleaded gasoline
Carburetor		BN 40I (diaphragm) Fuel accelerator pump Quantity: 2

N.A.: Not Applicable.

<b>PROPULSION</b>		<b>SPX (5838/5839)</b>
Propulsion system		Bombardier Formula pump
Jet pump type		Axial flow, single stage
Transmission		Direct drive
Jet pump oil type		SEA-DOO synthetic polyolester oil 75W90 GL5
Pivoting angle of direction (nozzle)		~26°
Pivoting angle of variable trim system		~8°
Minimum required water level for jet pump		90 cm (3 ft)
<b>PERFORMANCE</b>		
Cruising time at full throttle	Fuel tank without reserve	~39 minutes
	Fuel tank reserve	~7 minutes
<b>DIMENSIONS</b>		
Number of passengers ①		2
Overall length		254 cm (100 in)
Overall width		105 cm (41.5 in)
Overall height		92 cm (36.2 in)
Weight		194 kg (428 lb)
Load limit (passengers + luggage)		159 kg (351 lb)
<b>CAPACITIES</b>		
Fuel tank		34 L (9 U.S. gal)
Oil injection tank		4.5 L (1.2 U.S. gal)

① Refer to load limit.

N.A.: Not Applicable.

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<b>ENGINE</b>		<b>GS (5626)</b>	<b>GSX LIMITED (5629)</b>
Engine type		Rotax 717, 2-stroke	Rotax 947, 2-stroke
Induction type		Rotary valve	Reed valve
Exhaust system		Water cooled/water injected	Water cooled/water injected with regulator
Exhaust valve		N.A.	RAVE
Lubrication	Type	Oil injection	Oil injection
	Oil type	BOMBARDIER ROTAX injection oil	FORMULA XP-S synthetic injection oil
Number of cylinders		2	2
Displacement		718.2 cm <sup>3</sup> (43.81 in <sup>3</sup> )	951.2 cm <sup>3</sup> (58 in <sup>3</sup> )
Rev limiter setting		7000 RPM ± 50	7200 RPM ± 50
<b>COOLING</b>			
Type		Water cooled, total loss type. Direct flow from propulsion unit.	Water cooled, total loss type. Direct flow from propulsion unit.
<b>ELECTRICAL</b>			
Magneto generator output		160 W @ 6000 RPM	180 W @ 6000 RPM
Ignition system type		Digital CDI	Digital DC-CDI
Spark plug	Make and type	NGK, BR8ES	NGK, BR8ES
	Gap	0.5 - 0.6 mm (.020 - .024 in)	0.5 - 0.6 mm (.020 - .024 in)
Starting system		Electric starter	Electric starter with reduction gear
Battery		12 V, 19 A	12 V, 19 A
Fuse	Starting system	5 A	5 A
	Charging system	2 x 15 A	2 x 15 A
	VTS system	N.A.	7.5 A
<b>CARBURETION</b>			
Fuel type		Regular unleaded gasoline	Regular unleaded gasoline
Carburetor		BN 40I (diaphragm) Fuel accelerator pump Quantity: 1	BN 46I (diaphragm) Fuel accelerator pump Quantity: 2

N.A.: Not Applicable.

<b>PROPULSION</b>		<b>GS (5626)</b>	<b>GSX LIMITED (5629)</b>
Propulsion system		Bombardier Formula pump	Bombardier Formula pump
Jet pump type		Axial flow, single stage	Axial flow, single stage
Transmission		Direct drive	Direct drive
Jet pump oil type		SEA-DOO synthetic polyolester oil 75W90 GL5	SEA-DOO synthetic polyolester oil 75W90 GL5
Pivoting angle of direction (nozzle)		~23°	~23°
Pivoting angle of variable trim system		N.A.	±8°
Minimum required water level for jet pump		90 cm (3 ft)	90 cm (3 ft)
<b>PERFORMANCE</b>			
Cruising time at full throttle	Fuel tank without reserve	~1 hour 21 minutes	~49 minutes
	Fuel tank reserve	~21 minutes	~13 minutes
<b>DIMENSIONS</b>			
Number of passengers ①		2	2
Overall length		267 cm (105 in)	267 cm (105 in)
Overall width		116 cm (45.7 in)	116 cm (45.7 in)
Overall height		94 cm (37 in)	94 cm (37 in)
Weight		215 kg (474 lb)	237 kg (523 lb)
Load limit (passengers + luggage)		159 kg (351 lb)	159 kg (351 lb)
<b>CAPACITIES</b>			
Fuel tank		56.5 L (15 U.S. gal)	56.5 L (15 U.S. gal)
Oil injection tank		6 L (1.6 U.S. gal)	6 L (1.6 U.S. gal)

① Refer to load limit.

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<b>ENGINE</b>		<b>XP LIMITED (5665/5667)</b>
Engine type		Rotax 947, 2-stroke
Induction type		Reed valve
Exhaust system		Water cooled/water injected with regulator
Exhaust valve		RAVE
Lubrication	Type	Oil injection
	Oil type	FORMULA XP-S synthetic injection oil
Number of cylinders		2
Displacement		951.2 cm <sup>3</sup> (58 in <sup>3</sup> )
Rev limiter setting		7200 RPM ± 50
<b>COOLING</b>		
Type		Water cooled, total loss type. Direct flow from propulsion unit.
<b>ELECTRICAL</b>		
Magneto generator output		180 W @ 6000 RPM
Ignition system type		Digital DC-CDI
Spark plug	Make and type	NGK, BR8ES
	Gap	0.5 - 0.6 mm (.020 - .024 in)
Starting system		Electric starter with reduction gear
Battery		12 V, 19 A
Fuse	Starting system	5 A
	Charging system	2 x 15 A
	VTS system	7.5 A
<b>CARBURETION</b>		
Fuel type		Regular unleaded gasoline
Carburetor		BN 46I (diaphragm) Fuel accelerator pump Quantity: 2

N.A.: Not Applicable.

<b>PROPULSION</b>		<b>XP LIMITED (5665/5667)</b>
Propulsion system		Bombardier Formula pump
Jet pump type		Axial flow, single stage
Transmission		Direct drive/split FR and RR
Jet pump oil type		SEA-DOO synthetic polyolester oil 75W90 GL5
Pivoting angle of direction (nozzle)		~23°
Pivoting angle of variable trim system		±8°
Minimum required water level for jet pump		90 cm (3 ft)
<b>PERFORMANCE</b>		
Cruising time at full throttle	Fuel tank without reserve	~48 minutes
	Fuel tank reserve	~11 minutes
<b>DIMENSIONS</b>		
Number of passengers ①		2
Overall length		272 cm (107 in)
Overall width		111 cm (43.7 in)
Overall height		103 cm (40.6 in)
Weight		250 kg (551 lb)
Load limit (passengers + luggage)		159 kg (351 lb)
<b>CAPACITIES</b>		
Fuel tank		54 L (14 U.S. gal)
Oil injection tank		4 L (1.1 U.S. gal)

① Refer to load limit.

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<b>ENGINE</b>		<b>GTS (5819)</b>
Engine type		Rotax 717, 2-stroke
Induction type		Rotary valve
Exhaust system		Water cooled/water injected
Lubrication	Type	Oil injection
	Oil type	BOMBARDIER ROTAX INJECTION OIL
Number of cylinders		2
Displacement		718.2 cm <sup>3</sup> (43.81 in <sup>3</sup> )
Rev limiter setting		7000 RPM ± 50
<b>COOLING</b>		
Type		Water cooled, total loss type. Direct flow from propulsion unit.
<b>ELECTRICAL</b>		
Magneto generator output		160 W @ 6000 RPM
Ignition system type		Digital CDI
Spark plug	Make and type	NGK, BR8ES
	Gap	0.5 - 0.6 mm (.020 - .024 in)
Starting system		Electric starter
Battery		12 V, 19 A
Fuse	Starting system	5 A
	Charging system	15 A
<b>CARBURETION</b>		
Fuel type		Regular unleaded gasoline
Carburetor		BN 40I (diaphragm) Fuel accelerator pump Quantity: 1

N.A.: Not Applicable.

<b>PROPULSION</b>		<b>GTS (5819)</b>
Propulsion system		Bombardier Formula pump
Jet pump type		Axial flow, single stage
Transmission		Direct drive
Jet pump oil type		SEA-DOO synthetic polyolester oil 75W90 GL5
Pivoting angle of direction (nozzle)		~26°
Pivoting angle of variable trim system		N.A.
Minimum required water level for jet pump		90 cm (3 ft)
<b>PERFORMANCE</b>		
Cruising time at full throttle	Fuel tank without reserve	~1 hour
	Fuel tank reserve	~20 minutes
<b>DIMENSIONS</b>		
Number of passengers ①		3
Overall length		302 cm (119 in)
Overall width		119 cm (46.9 in)
Overall height		95 cm (37.4 in)
Weight		219 kg (483 lb)
Load limit (passengers + luggage)		224 kg (494 lb)
<b>CAPACITIES</b>		
Fuel tank		47 L (12 U.S. gal)
Oil injection tank		4.5 L (1.2 U.S. gal)

① Refer to load limit.

N.A.: Not Applicable.

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<b>ENGINE</b>		<b>GTI (5836)</b>	<b>GTX LIMITED (5837)</b>
Engine type		Rotax 717, 2-stroke	Rotax 947, 2-stroke
Induction type		Rotary valve	Reed valve
Exhaust system		Water cooled/water injected	Water cooled/water injected with regulator
Exhaust valve		N.A.	RAVE
Lubrication	Type	Oil injection	Oil injection
	Oil type	BOMBARDIER ROTAX INJECTION OIL	FORMULA XP-S synthetic injection oil
Number of cylinders		2	2
Displacement		718.2 cm <sup>3</sup> (43.81 in <sup>3</sup> )	951.2 cm <sup>3</sup> (58 in <sup>3</sup> )
Rev limiter setting		7000 RPM ± 50	7200 RPM ± 50
<b>COOLING</b>			
Type		Water cooled, total loss type. Direct flow from propulsion unit.	Water cooled, total loss type. Direct flow from propulsion unit.
<b>ELECTRICAL</b>			
Magneto generator output		160 W @ 6000 RPM	180 W @ 6000 RPM
Ignition system type		Digital CDI	Digital DC-CDI
Spark plug	Make and type	NGK, BR8ES	NGK, BR8ES
	Gap	0.5 - 0.6 mm (.020 - .024 in)	0.5 - 0.6 mm (.020 - .024 in)
Starting system		Electric starter	Electric starter with reduction gear
Battery		12 V, 19 A	12 V, 19 A
Fuse	Starting system	5 A	5 A
	Charging system	2 x 15 A	2 x 15 A
	VTS system	N.A.	N.A.
<b>CARBURETION</b>			
Fuel type		Regular unleaded gasoline	Regular unleaded gasoline
Carburetor		BN 40I (diaphragm) Fuel accelerator pump Quantity: 2	BN 46I (diaphragm) Fuel accelerator pump Quantity: 2

N.A.: Not Applicable.

<b>PROPULSION</b>		<b>GTI (5836)</b>	<b>GTX LIMITED (5837)</b>
Propulsion system		Bombardier Formula pump	Bombardier Formula pump
Jet pump type		Axial flow, single stage	Axial flow, single stage
Transmission		Direct drive	Direct drive
Jet pump oil type		SEA-DOO synthetic polyolester oil 75W90 GL5	SEA-DOO synthetic polyolester oil 75W90 GL5
Pivoting angle of direction (nozzle)		~23°	~23°
Pivoting angle of variable trim system		N.A.	N.A.
Minimum required water level for jet pump		90 cm (3 ft)	90 cm (3 ft)
<b>PERFORMANCE</b>			
Cruising time at full throttle	Fuel tank without reserve	~1 hour 21 minutes	~49 minutes
	Fuel tank reserve	~21 minutes	~13 minutes
<b>DIMENSIONS</b>			
Number of passengers ①		3	3
Overall length		312 cm (122.8 in)	312 cm (122.8 in)
Overall width		119 cm (47 in)	119 cm (47 in)
Overall height		94 cm (37 in)	94 cm (37 in)
Weight		269 kg (593 lb)	293 kg (645 lb)
Load limit (passengers + luggage)		242 kg (534 lb)	242 kg (534 lb)
<b>CAPACITIES</b>			
Fuel tank		56.5 L (15 U.S. gal)	56.5 L (15 U.S. gal)
Oil injection tank		6 L (1.6 U.S. gal)	6 L (1.6 U.S. gal)

① Refer to load limit.

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# SI\* METRIC INFORMATION

BASE UNITS			
DESCRIPTION	UNIT	SYMBOL	
length .....	meter .....	m	
mass .....	kilogram .....	kg	
force .....	newton .....	N	
liquid .....	liter .....	L	
temperature .....	Celsius .....	°C	
pressure .....	kilopascal .....	kPa	
torque .....	newton-meter .....	N•m	
land velocity .....	kilometer per hour .....	km/h	
navigation velocity .....	knot .....	kn	

PREFIXES			
PREFIX	SYMBOL	MEANING	VALUE
kilo .....	k .....	one thousand .....	1000
centi .....	c .....	one hundredth of .....	0.01
milli .....	m .....	one thousandth of .....	0.001
micro .....	μ .....	one millionth of .....	0.000001

CONVERSION FACTORS			
TO CONVERT	TO ①	MULTIPLY BY	
in .....	mm .....	25.4	
in .....	cm .....	2.54	
in <sup>2</sup> .....	cm <sup>2</sup> .....	6.45	
in <sup>3</sup> .....	cm <sup>3</sup> .....	16.39	
ft .....	m .....	0.3	
oz .....	g .....	28.35	
lb .....	kg .....	0.45	
lbf .....	N .....	4.4	
lbf•in .....	N•m .....	0.11	
lbf•ft .....	N•m .....	1.36	
lbf•ft .....	lbf•in .....	12	
PSI .....	kPa .....	6.89	
imp. oz .....	U.S. oz .....	0.96	
imp. oz .....	mL .....	28.41	
imp. gal .....	U.S. gal .....	1.2	
imp. gal .....	L .....	4.55	
U.S. oz .....	mL .....	29.57	
U.S. gal .....	L .....	3.79	
knot .....	MPH .....	1.15	
MPH .....	km/h .....	1.61	
Fahrenheit .....	Celsius .....	(°F - 32) ÷ 1.8	
Celsius .....	Fahrenheit .....	(°C x 1.8) + 32	
hp .....	kW .....	.75	

\* The international system of units abbreviates SI in all languages.

① To obtain the reverse sequence, divide by the given factor. Example: to convert millimeters to inches, divide by 25.4.

**NOTE:** Conversion factors are rounded off to 2 decimals for easier use.

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## **OTHER PUBLICATIONS AVAILABLE**

PUBLICATION	P/N
<i>Shop Manual</i>	219 100 068
<i>Sea-Doo Racing Handbook</i>	219 000 080
<i>Specification Booklet</i>	219 100 071

**WATERCRAFT MODEL No.** \_\_\_\_\_

**HULL**  
IDENTIFICATION NUMBER (H.I.N.) \_\_\_\_\_

**ENGINE**  
IDENTIFICATION NUMBER (E.I.N.) \_\_\_\_\_

**Purchase Date** \_\_\_\_\_  
                                    year    month    day

**Warranty Expiry Date** \_\_\_\_\_  
                                    year    month    day

To be completed by the dealer at the time of the sale

DEALER IMPRINT AREA

**Please verify with your selling dealer to ensure your SEA-DOO watercraft has been registered with Bombardier.**

# CHANGE OF ADDRESS

If your address has changed, be sure to fill out and mail the card provided on this page.

Such notification is likewise necessary for your own safety even after expiration of the original warranty, since Bombardier will be in a position to contact you if correction to your watercraft becomes necessary.

**NOTE:** This card is strictly for change of address only.

## CHANGE OF ADDRESS



CHANGE OF ADDRESS

WATERCRAFT  
IDENTIFICATION NUMBERS

--	--	--	--	--

Model Number

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Hull Identification Number (H.I.N.)

OLD ADDRESS: \_\_\_\_\_  
NAME

NO. \_\_\_\_\_ STREET \_\_\_\_\_ APT \_\_\_\_\_

CITY \_\_\_\_\_ STATE/PROVINCE \_\_\_\_\_ ZIP/POSTAL CODE \_\_\_\_\_

NEW ADDRESS: \_\_\_\_\_  
NAME

NO. \_\_\_\_\_ STREET \_\_\_\_\_ APT \_\_\_\_\_

CITY \_\_\_\_\_ STATE/PROVINCE \_\_\_\_\_ ZIP/POSTAL CODE \_\_\_\_\_

## STOLEN UNITS

In the event that your watercraft is stolen, you should notify your area's distributor warranty department of such.

Please provide your name, address, phone number, Hull Identification Number and date it was stolen.

Bombardier will provide a list of stolen units to all watercraft dealers on a monthly basis to aid in recovery of such units to their owners.



STAMP

**BOMBARDIER INC.**  
SEA-DOO WARRANTY  
VALCOURT, QUEBEC  
CANADA J0E 2L0



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