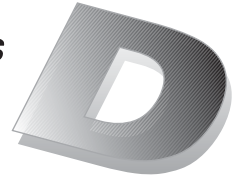




SPORT BOATS
PREDELIVERY
Bulletin



April 17, 2009

Subject: **Predelivery Inspection - All Models**

No.

2009-1

YEAR	MODEL	MODEL NUMBER	ENGINE HP	SERIAL NUMBER
2009	150 Speedster®	979A/979C	155 HP	All
		989A/989C	215 HP	
		999A/999C	255 HP	
	150 Speedster® with tower	979B/979D	155 HP	
		989B/989D	215 HP	
		999B/999D	255 HP	
	180 Challenger†	869A/869C 869E/869F	215 HP	
		879A/879C	255 HP	
	180 Challenger† with tower	869B/869D	215 HP	
		879B/879D	255 HP	
	200 Speedster	699A/699C	2 x 215 HP	
	200 Speedster with tower	699B/699D	2 x 215 HP	
	200 Speedster Wake	699W	2 x 215 HP	
	205 Utopia®	889A	2 x 155 HP	
	205 Utopia® with tower	889B	2 x 155 HP	
	205 Utopia®	899A	2 x 215 HP	
	205 Utopia® with tower	899B	2 x 215 HP	
	220 Islandia® SE	839A	2 x 215 HP	
	230 Challenger† SE	779A/779B	2 x 155 HP	
		789A/789C 789E/789G	2 x 215 HP	
		799A/799C 799E/799G	2 x 255 HP	
	230 Challenger† SE with tower	789B/789D 789F/789H	2 x 215 HP	
		799B/799D 799F/799H	2 x 255 HP	
779N/7779P		2 x 155 HP		
230 Challenger† SP	789N/789P	2 x 215 HP		
	789W/789X	2 x 215 HP		
230 Wake	799W/799X	2 x 255 HP		

† Challenger is a trademark of Bombardier Inc., used under license.

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IMPORTANT NOTICE

This bulletin must be used in conjunction with the *PREDELIVERY CHECK LIST* enclosed in the shrink pack.

NOTICE To obtain limited warranty coverage, predelivery procedure must be performed by an authorized Sea-Doo sport boats dealer/distributor. Apply all necessary torques as indicated.

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

Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. BRP reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts; however, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training.

Further information or inquiries should be directed to your distributor service representative and/or specific *SHOP MANUAL* sections.

Please complete the *PREDELIVERY CHECK LIST* for each sport boat and retain a purchaser and dealer signed copy.

Make sure the purchaser receives the *OPERATORS GUIDE*, *PREDELIVERY CHECK LIST* signed copy and *SAFETY DVD*.

WARNING

Torque wrench tightening specifications must be strictly adhered to. Where specified, install new locking devices (e.g. lock tabs, elastic stop nuts). If the efficiency of a locking device is impaired, it must be renewed.

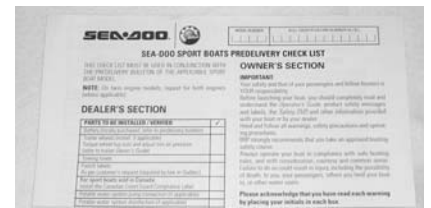
PREDELIVERY KIT PARTS LIST



P1



P2



P3



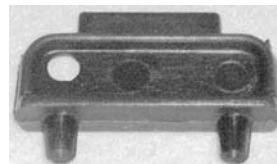
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P5



P6



P7



P8



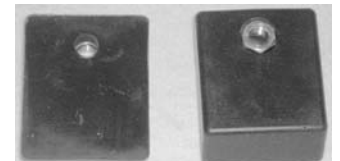
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P10



P11



P12



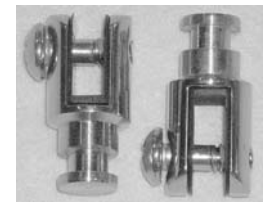
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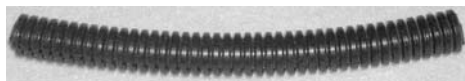
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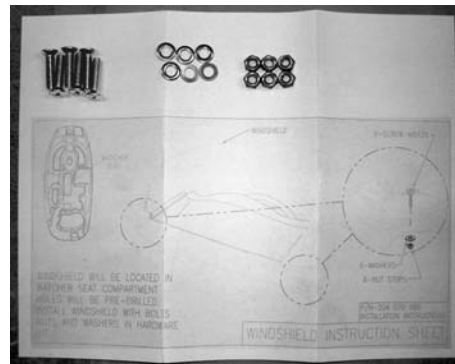
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P31



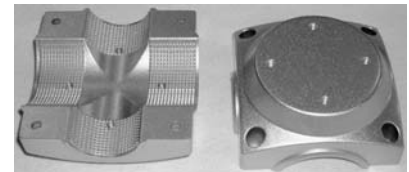
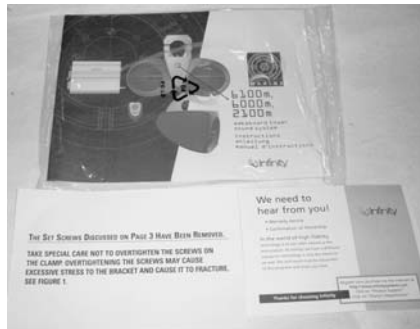
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P33



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PREDELIVERY KIT PARTS LIST

150 SPEEDSTER				
Item	Description	P/N	No-Tower Models	Tower Models
			QTY	
P1	Operator's guide	204 630 374	1	–
		204 630 389	–	1
P2	Safety DVD	204 630 347	1	1
P3	Predelivery literature	204 630 387	1	1
P4	Spark plug socket	529 035 731	1	1
P5	Steel bar	204 630 051	1	1
P6	Safety lanyard	204 471 206	1	1
P7	Fuel tank cap key	204 560 182	1	1
P9	Mirror	204 071 420	–	1
P10	Mirror screws	204 100 129	–	2
P11	Tower knobs	204 071 433	–	2
P12	Rubber spacers	204 072 099	–	2
P14	Tower installation hardware kit	204 072 649	–	1
P20	Stereo information package	204 471 211	1	1
–	Warranty literature	219 400 038	1	1
–	Storage compartment keys	204 071 753	2	2
–	Ski locker keys	204 073 347	2	2

180 CHALLENGER					
Item	Description	P/N	Base Models	SE No-Tower Models	SE Tower Models
			QTY		
P1	Operator's guide	204 630 386	1	1	1
P2	Safety DVD	204 630 347	1	1	1
P3	Predelivery literature	204 630 387	1	1	1
P4	Spark plug socket	529 035 731	1	1	1
P5	Steel bar	204 630 051	1	1	1
P6	Safety lanyard	204 471 206	1	1-	1
P7	Fuel tank cap key	204 560 820	1	1	1
P15	Tower installation hardware kit	204 950 086	–	–	1
P20	Stereo information package	204 471 211	1	1	1
P27	Seat base information	203 614 717/718	1	1	1
P28	Stereo remote literature	204 471 214	–	1	1
–	Depth finder information	278 001 995	–	1	1
–	Warranty literature	219 400 038	1	1	1
–	Storage compartment keys	204 071 753	2	2	2
–	Ski locker keys	204 073 347	2	2	2
–	Carpet manufacturer's information	–	–	1	1

200 SPEEDSTER					
Item	Description	P/N	Base Models	Tower Models	WAKE Models
			QTY		
P1	Operator's guide	204 630 379	1	1	1
P2	Safety DVD	204 630 347	1	1	1
P3	Predelivery literature	204 630 387	1	1	1
P4	Spark plug socket	529 035 731	1	1	1
P5	Steel bar	204 630 051	1	1	1
P6	Safety lanyard	204 471 206	1	1	1
P7	Fuel tank cap key	204 560 182	1	1	1
P9	Mirror	204 071 420	–	1	1
P10	Mirror screws	204 100 129	–	2	2
P11	Tower knobs	204 071 433	–	2	2
P18	Tower installation hardware kit	204 950 190	–	1	1
P19	Wake board rack	204 950 147	–	–	2
P20	Stereo information package	204 471 211	1	1	1
P22	Perfect pass owner manual	204 250 390	–	–	1
P26	Ballast pump literature	204 471 283	–	–	1
P30	Speaker harness kit (2 parts per kit)	204 471 046	–	–	1
P33	Rubber grommet	204 072 437	–	–	1
P34	Infinity speaker/ampli	204 471 045	–	–	1
–	Warranty literature	219 400 038	1	1	1
–	Storage compartment keys	204 071 753	2	2	2
–	Ski locker keys	204 073 347	2	2	2

205 UTOPIA				
Item	Description	P/N	No-Tower Models	Tower Models
			QTY	
P1	Operator's guide	204 630 382	1	1
P2	Safety DVD	204 630 347	1	1
P3	Predelivery literature	204 630 387	1	1
P4	Spark plug socket	529 035 731	1	1
P5	Steel bar	204 630 051	1	1
P6	Safety lanyard	204 471 206	1	1
P7	Fuel tank cap key	204 560 182	1	1
P9	Mirror	204 071 420	–	1
P10	Mirror screws	204 100 129	–	2
P13	Tower installation hardware kit	204 072 241	–	1
P20	Stereo information package	204 471 211	1	1
P24	Tower bumper pad	204 072 602	–	1
P28	Stereo remote literature	204 471 214	1	1
–	Depth finder information	278 001 995	1	1
–	Warranty literature	219 400 038	1	1
–	Ski locker keys	204 073 347	2	2
–	Carpet manufacturer's information	–	1	1

220 ISLANDIA			
Item	Description	P/N	QTY
P1	Operator's guide	204 630 383	1
P2	Safety DVD	204 630 347	1
P3	Predelivery literature	204 630 387	1
P4	Spark plug socket	529 035 731	1
P5	Steel bar	204 630 051	1
P6	Safety lanyard	204 471 206	1
P8	Fuel tank cap key	204 560 224	1
P20	Stereo information package	204 471 211	1
P21	Depth finder information	204 471 157	1
P23	Flo Jet washdown pump literature	204 470 523	2
P28	Stereo remote literature	204 471 214	1
P32	Windshield hardware kit	204 070 985	1
–	Warranty literature	219 400 038	1
–	Glove box keys	204 071 840	2
–	Ski locker keys	204 073 347	2
–	Sink accessory and literature	–	2

230 CHALLENGER/230 CHALLENGER SP				
Item	Description	P/N	Base Models	SP Models
			QTY	
P1	Operator's guide	204 630 385	1	1
P2	Safety DVD	204 630 347	1	1
P3	Predelivery literature	204 630 387	1	1
P4	Spark plug socket	529 035 731	1	1
P5	Steel bar	204 630 051	1	1
P6	Safety lanyard	204 471 206	1	1
P7	Fuel tank cap key	204 560 182	1	1
P9	Mirror	204 071 420	–	1
P10	Mirror screws	204 100 129	–	2
P16	Bimini top buttons	204 950 033	2	4
P17	Tower installation hardware kit	204 072 919	–	1
P20	Stereo information package	204 471 211	1	1
P21	Depth finder information	204 471 157	–	1
P29	Stereo remote literature	204 471 318	–	1
P31	Corrugated tube	204 050 326	–	1
–	Warranty literature	219 400 038	1	1
–	Ski locker keys	204 073 230	2	2
–	Carpet manufacturer's information	–	–	1

230 CHALLENGER SE/230 WAKE					
Item	Description	P/N	SE No-Tower Models	SE Tower Models	WAKE Models
			QTY		
P1	Operator's guide	204 630 385	1	1	1
P2	Safety DVD	204 630 347	1	1	1
P3	Predelivery literature	204 630 387	1	1	1
P4	Spark plug socket	529 035 731	1	1	1
P5	Steel bar	204 630 051	1	1	1
P6	Safety lanyard	204 471 206	1	1	1
P7	Fuel tank cap key	204 560 182	1	1	1
P9	Mirror	204 071 420	–	1	1
P10	Mirror screws	204 100 129	–	2	2
P16	Bimini top buttons	204 950 033	2	4	4
P17	Tower installation hardware kit	204 072 919	–	1	1
P19	Wake board rack	204 072 339	–	–	2
P20	Stereo information package	204 471 211	1	1	1
P21	Depth finder information	204 471 157	1	1	1
P22	Perfect pass owner manual	204 250 390	–	–	1
P25	Hull speed Kit (3 pieces per kit)	204 250 389	–	–	1
P26	Ballast pump literature	204 471 283	–	–	1
P29	Stereo remote literature	204 471 318	1	1	1
P30	Speaker harness kit (2 pieces per kit)	204 471 046	–	–	1
P31	Corrugated tube	204 050 326	–	1	1
P34	Infinity speaker/ampli	204 471 045	–	–	1
–	Warranty literature	219 400 038	1	1	1
–	Ski locker keys	204 073 230	2	2	2
–	Carpet manufacturer's information	–	1	1	1

UNCRATING

Trailer Wheels

Dealers are requested to install the wheels on the trailer (if removed) as per trailer manufacturer's sheet.

1. Inspect and torque all wheel lug nuts to 108 N•m (80 lbf•ft).
2. Check air pressure in trailer tires; inflate to manufacturer's specifications.

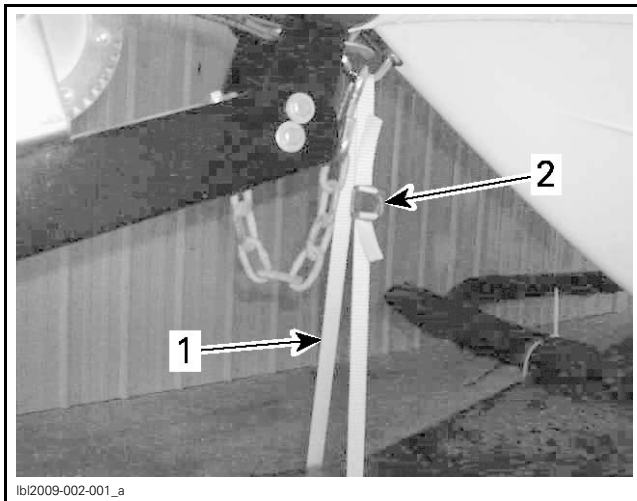
Unwrapping

Before unwrapping, clean the boat and trailer with fresh water to wash out any accumulation of dirt built up during transportation.

NOTICE Corrosive agents from the road may alter the appearance of boat hull and trailer.

All Models except 150 Speedster and 180 Challenger

From the opposite side of the metallic ring, cut the upper portion of bow strap.



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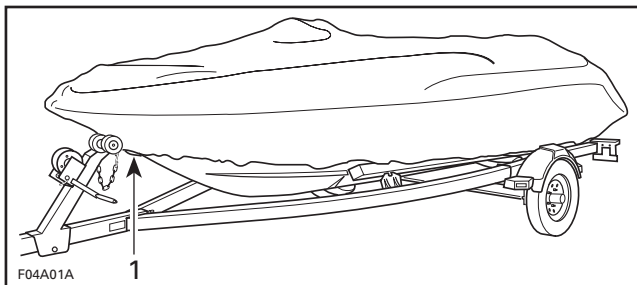
- 1. Bow strap
- 2. Metallic ring

CAUTION The strap is very tight. Always wear safety goggles and gloves when cutting the retaining strap. To avoid injury, never cut the strap by the side with metallic ring.

All Models

Carefully cut wrap and its ropes at bow (front) and stern (rear) eyelets.

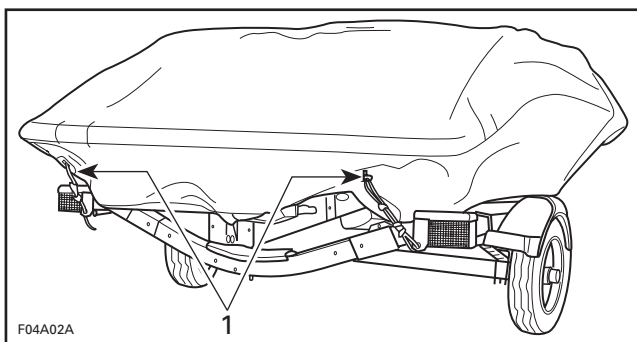
NOTICE Whenever using a cutter to remove shrink wrap, use care not to damage boat.



F04A01A

BOW (FRONT)

- 1. Wrap and its ropes



F04A02A

STERN (REAR)

- 1. Wrap and its ropes

Raise wrap gently at stern then gently “roll” toward bow. Completely remove from boat.

Decal Protective Films

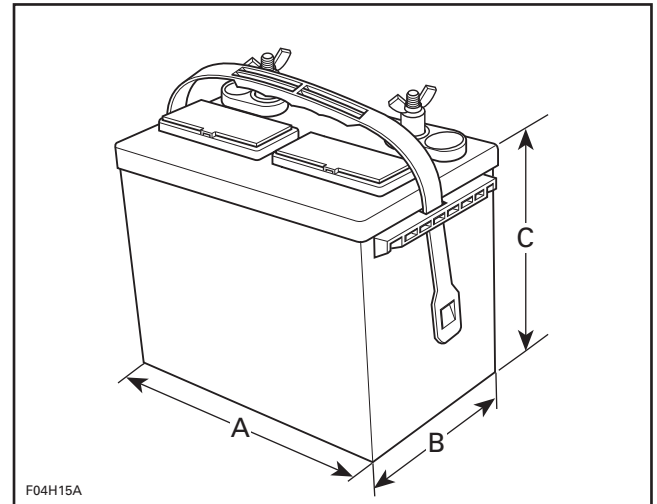
- 1. Protective film on all decals must be removed. Slowly peel off protective films.

SETUP

Battery

Purchase battery locally. Refer to *TECHNICAL DATA* for specifications.

MAXIMUM allowed battery size:



F04H15A

TYPICAL

- A. 273 mm (10-3/4 in)
- B. 179 mm (7 in)
- C. 219 mm (8-5/8 in)

WARNING

Never use automotive type battery. Its mechanical construction does not meet the requirements of marine environment. Only use the type of battery recommended.

Activate and charge the new battery as per manufacturer’s instructions.

Battery Installation

WARNING

Never secure electrical wires/cables to fuel lines. Keep wires away from any rotating, moving, heating, vibrating or sharp edged parts. Use proper locking ties.

⚠ WARNING

Verify starter cable connections for tightness. Always connect battery cables exactly in specified order, RED positive cable first. Electrolyte or fuel vapors can be present in engine compartment and a spark might ignite them producing an explosion and possibly causing personal injuries. Do not charge a battery that is installed.

Two battery post adapters are supplied with the boat, inside battery case. Use them to fit cables to battery if necessary.

Install the post adapter identified "P" on the positive post (if necessary).

Position the battery in case so that the positive post is toward bow (front).

Properly route cables toward battery posts, between case and insulating foam. It may be necessary to reroute engine ground cable so that it is long enough to reach battery post.

Install RED cable on positive (+) battery post/terminal and tighten nut.

Install BLACK cable on negative (-) battery post/terminal and tighten nut.

NOTE: Ensure all connections are tight. Loose connections or intermittent contact could cause failure of electrical components. If wing nuts are used, tighten with pliers.

Accessories

NOTE: Some Sea-Doo sport boats come with special accessories. Make sure to inspect and install them.

Bimini Top

180 Challenger w/tower, 205 Utopia, Islandia SE

Install top as required.

For transportation purposes, the bimini top may be removed and stowed on the floor of the boat.

Hardware and support poles are stowed in ski locker or storage compartments.

For installation reference, please refer to current shop manual.

Towing Tower Assembly***All equipped vehicles***

The towing tower is shipped on the trailer. The tower must be removed from trailer and installed on boat in the upright/towing position for trailering or operation.

Tighten all fasteners to appropriate torque values.

NOTE: This procedure may require two people. For installation reference, please refer to current shop manual.

Microphone and Speakers***200 Speedster Wake and 230 Wake***

Remove protective material from microphone and plug cord into receptacle under helm. Hang microphone on hanger on starboard console.

To install speakers, refer to included *SPEAKER OWNER'S MANUAL* for complete procedure.

Perfect Pass***200 Speedster Wake and 230 Wake***

Refer to included Perfect Pass Manual.

FINAL PREPARATION**B.U.D.S. Programming**

The boats are shipped with the DESS™ (Digitally Encoded Security System) activated which enables the anti-start feature. The safety lanyard shipped with the boat has NOT been programmed at the factory. Therefore, **THE ENGINE(S) CANNOT BE STARTED AND RUN WITHOUT PROGRAMMING A SAFETY LANYARD.**

To enter the vehicle identification or to program a safety lanyard, use BRP Utility and Diagnostic Software (B.U.D.S.) in conjunction with the MPI-2 INTERFACE CARD (P/N 529 036 018) and the D.E.S.S. POST INTERFACE (P/N 529 036 019). D.E.S.S. post interface must be connected before starting B.U.D.S.



Install a lanyard on DESS post.



The use of B.U.D.S. is mandatory. The MPEM programmer will not work on 4-TEC® engines.

Always use the latest B.U.D.S. version that is available from BOSSWeb (www.bossweb.brp.com).

NOTE: For twin engine configuration, both engines need to be programmed.

Connecting

Connect the D.E.S.S. post interface to the vehicle diagnostic connector.

Connect the remaining connector to the MPI-2 interface card.

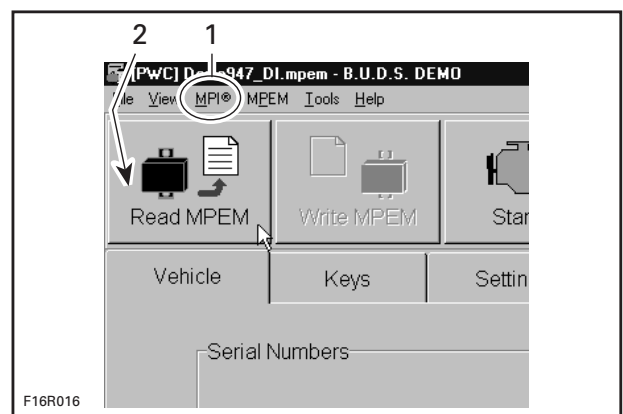


Connect the MPI-2 interface card cable into a computer USB port.

MODEL	B.U.D.S CONNECTOR LOCATION
150 Speedster	Engine compartment, in port side next to fuse box.
200 Speedster / 205 Utopia	Underneath rear seat, in storage compartment
230 Challenger / 230 Wake	Under starboard rear seat cushion, in storage compartment
180 Challenger	Port side, under the rear storage cover
Islandia	At front of engine

Vehicle Identification

1. Choose KW2000 Protocol from Choose Protocol option in the MPI drop-down menu.
2. Read DATA using leftmost icon.



1. MPI drop-down menu
2. Read DATA icon

3. Click on **VEHICLE** tab.
4. Enter purchaser's name in the customer field.

- Click on the second icon of the tool bar Write ECM to register new information from MPI memory to ECM.

Key Programming

- Click on KEYS tab.
- Click on ADD NORMAL KEY button at bottom of screen.
- Install normal key on D.E.S.S. post interface.
- Click on OK.



- ADD NORMAL KEY

- Save new data in ECM using the WRITE DATA button.

Ending Session

- Click on FAULT tab and check if there are active faults.
- If so, service vehicle then clear the faults in ECM using B.U.D.S.

NOTE: After a problem has been solved, ensure to clear the fault(s) in the ECM. This will properly reset the appropriate counter(s). This will also record that the problem has been fixed in the ECM memory.

- Click on WRITE DATA button to transfer new settings and information.
 - Click on EXIT button (rightmost) to end session.
 - Reinstall the cap over the diagnostic connector.
- For twin engine configuration, repeat for the second engine.

Fuel

Recommended Fuel

Use unleaded gasoline or oxygenated fuel containing a maximum total of 10% of ethanol or methanol or both. The gasoline used must have the following recommended octane number.

Refer to the Specifications Section for the type of fuel to use.

NOTICE Never experiment with other fuels or fuel ratios. The use of a non-recommended fuel can result in boat performance deterioration and damage to critical parts in the fuel system and engine components.

NOTE: Never add oil to the fuel.

MINIMUM OCTANE RATING	
Inside North America	87 (RON + MON)/2 (1)
Outside North America	92 RON (1)

- (1) On supercharged intercooled models, use super unleaded fuel for optimum engines performance.

Fueling Procedure

- Unscrew the cap counterclockwise and remove it.
- Insert the spout into the filler neck.
- Pour fuel slowly so that air can escape from the tank and prevent fuel flow back. Be careful not to spill fuel.
- Stop filling when the fuel reaches the bottom of filler neck. **Do not overfill.**
- Fully tighten fuel tank cap.

NOTE: Please remember, always respect the environment. Be careful while fueling.

WARNING

Fuel is flammable and explosive under certain conditions. Always work in a well ventilated area. Never install the safety lanyard prior to checking fuel line connector tightness. Do not smoke or allow open flames or sparks in vicinity. 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 performance deterioration and damage to critical parts in fuel system and engine components. Never top off fuel tank then allow boat to remain in hot weather and/or direct sun rays. As temperature increases, fuel expands and might overflow. Always remove any fuel spillage from boat.

Fuel System Pressurization

NOTE: Fuel system has been checked at the factory and does not require testing unless something, in the system, has been disturbed.

Engine(s) Oil

Recommended Engine(s) Oil

Use XPS SUMMER GRADE OIL (P/N 293 600 121).

155 Engines

If the XPS engine oil is not available, use a 5W 40 engine oil meeting the requirements for API service classification SM, SL or SJ. Always check the API service label certification on the oil container, it must contain at least one of the above standards.

215 and 255 Engines

If XPS engine oil is not available, use a 5W 40 engine oil compatible with wet clutches.

NOTE: The XPS engine oil has been thoroughly tested to be free of any additives that could impair the functionality of the supercharger clutch.

NOTICE Do not use an engine oil meeting the requirement for API service classification SM or SL. Using a lubricant not compatible with wet clutches will impair the proper operation of the supercharger clutch. Do not add any additives to the recommended oil.

Engine(s) Oil Level

Engine is factory filled with oil.

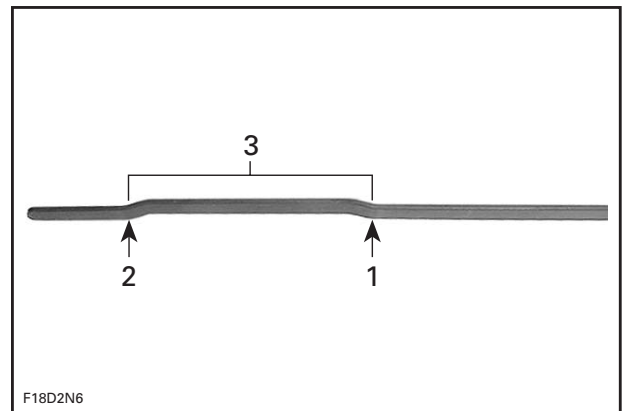
NOTICE If vehicle is not in water, make sure to cool engine using flush kit, otherwise, the engine, the drive line and/or the exhaust system may be severely damaged. Refer to FLUSHING in the *OPERATOR'S GUIDE* and follow the procedure.

When using the flush kit, never run the engine for more than 5 minutes; the drive line seal has no cooling when vehicle is out of water; severe damage may occur.

1. Check oil level in all engines.
2. Warm-up engine then let idle for 30 seconds before stopping.
3. Stop engine.

CAUTION Engine oil may be hot. Certain components in the engine compartment may be very hot. Direct contact may result in skin burn.

4. Wait at least 30 seconds then pull dipstick out and wipe clean.
5. Reinstall dipstick, push in completely.
6. Remove dipstick and read oil level. It should be within range.



1. FULL mark
2. ADD mark
3. Operating range

7. If needed, add the recommended type of oil.

7.1 Unscrew oil cap.

7.2 Place a funnel into the opening.

7.3 Add the oil to the proper level. **Do not overfill.**

NOTE: Every time oil is added in engine, the complete procedure explained previously must be done (engine restarted, idling for 30 seconds, 30 seconds waiting time and then, rechecking the oil level). Otherwise, you will have a false oil level reading.

7.4 Properly reinstall oil cap and dipstick.

Engine(s) Coolant

Recommended Engine Coolant

Always use ethylene-glycol antifreeze containing corrosion inhibitors specifically for internal combustion aluminum engines.

NOTE: When available, it is recommended to use biodegradable antifreeze compatible with internal combustion aluminum engines. This will contribute to protect the environment.

Cooling system must be filled with water and antifreeze solution (50% demineralized water, 50% antifreeze).

BRP sells premixed coolant with freezing protection up to -37°C (-35°F) (P/N 293 600 038).

To prevent antifreeze deterioration, always use the same brand. Never mix different brands unless cooling system is completely flushed and refilled. Refer to an authorized Sea-Doo dealer.

Engine(s) Coolant Level Verification

⚠ WARNING

Check coolant level with engine cold. Never add coolant in cooling system when engine is hot.

With vehicle leveled, liquid should be between MIN. and MAX. level marks of coolant reservoir when engine is cold.



1. MIN. and MAX. level marks

NOTE: The vehicle is level when it is in water. When on a trailer, raise trailer tongue and block in this position when bumper rail is level.

Check the coolant level for each engine.

Add coolant to have the level between marks as required.

Use a funnel to avoid spillage.

NOTICE Do not overfill.

Properly reinstall and tighten filler cap then reinstall seat.

Steering

All adjustments have been performed at the factory. If adjustments are needed, refer to the appropriate *SHOP MANUAL*.

Final Inspection

1. Complete *PREDELIVERY CHECK LIST* following all instructions.
2. Test ride boat.

Boat Cleaning

Clean vehicle.

NOTICE Clean apparent fiberglass and plastic parts with a clean cloth and soapy water or isopropyl alcohol. Never use strong detergent, degreasing agent, paint thinner, acetone, etc. Do not apply isopropyl alcohol directly on decals.

DELIVERY TO CUSTOMER

1. Where possible, give a brief demo ride and explain boat operation.
2. Explain, complete and return WARRANTY REGISTRATION CARD (legal requirement).
3. Customer must sign *PREDELIVERY CHECK LIST*.
4. Give to customer:
 - Operator's guide
 - Safety DVD
 - Copy of the *PREDELIVERY CHECK LIST*.

Break-In Period

Explain to the purchaser that for vehicle powered by Rotax® engines, a break-in period of 10 hours is required before continuous operation at full throttle.

To achieve a good break-in, vary the engine speed every few minutes with brief wide open throttle accelerations of up to 15 seconds.

NOTICE Continued wide open throttle runs and prolonged cruising without speed variations should be avoided, this can cause engine damage during the break-in period.

Accessories

On some models, accessories have been installed prior to delivering vehicle. Refer to appropriate *OPERATOR'S MANUAL* or to supplied instructions for installation and use procedure.

SPECIFICATIONS

Technical Data

MODELS		220 ISLANDIA SE
ENGINE		
Number of engines		2
Engine type		Rotax 1503 4-TEC, 4-stroke Single Over Head Camshaft (SOHC)
Exhaust system		Water cooled/water injected (opened loop). Direct flow from jet pump
Lubrication	Type	Dry sump (2 oil pumps). Replaceable oil filter. Water-cooled oil cooler
	Oil type	XPS summer grade (P/N 293 600 121) or use a 5W 40 engine oil compatible with wet clutches. Refer to <i>RECOMMENDED ENGINE OIL</i> for more information.
Number of cylinders		6 (3 per engine)
Displacement		1 493.8 cm ³ (91 in ³)
Induction type		Supercharged intercooled
Maximum HP RPM ± 50 RPM		8000 RPM
COOLING		
Type		Liquid cooled. Closed circuit (see also <i>EXHAUST SYSTEM</i>)
Coolant		Ethylene-glycol and distilled water (50%/50%). Use premix coolant from BRP or a coolant specially formulated for aluminum engines
ELECTRICAL		
Magneto generator output		360 W @ 6000 RPM
Ignition system type		DI (Digital Inductive)
Ignition timing		Not adjustable
Spark plug	Make and type	NGK, DCPR8E
	Gap	0.7 mm - 0.8 mm (.028 in - .031 in)
Starting system		Electric starter
Engine RPM limiter setting		8000 RPM
Battery		⁽¹⁾ Not supplied. 12 V group 24, marine starting battery with top-mounted, round taper type battery post
Fuse (VCM)	F1: Accessories	10 A
	F2: Blowers	10 A
	F3: Radio	3 A
	F4: Bilge pump	10 A
	F5: NAV lights	3 A
	F6: Horn	3 A

MODELS		220 ISLANDIA SE
ELECTRICAL (cont'd)		
Fuse (boat)	12-volt outlet	10 A
	Fresh water pump	10 A
	Changing room lights	2 A
	Engine compartment lights	4 A
	Docking lights	10 A
	Fountain pump	5 A
	Courtesy lights	5 A
	Boarding lights	5 A
	Charging system	2 x 30 A
	Automatic bilge pump	3 A
	Starting system	15 A
	Blower motor	2 x 5 A
	Radio memory	1 A
	EFB	2 x 15 A
	VCM	20 A
	Fuse block	2 x 20 A
Fuses (engines)	F1: Fuel pump	10 A
	F2: Cylinder 3, ignition coil and injection	10 A
	F3: ECM	5 A
	F4: Cylinder 1, ignition coil and injection	10 A
	F5: Cylinder 2, ignition coil and injection	10 A
	F6: Gauges	2 A
FUEL SYSTEM		
Fuel injection type	Rotax EMS (engine management system). Multipoint Fuel Injection. Single throttle body (52 mm)	
Fuel	RECOMMENDED FOR OPTIMUM PERFORMANCE	
	Type	Premium unleaded gasoline
	Minimum octane number	Inside North America: (91 (RON + MON)/2) Outside North America: 95 RON
	MINIMUM ALLOWED	
	Type	Regular unleaded gasoline
	Minimum octane number	Inside North America: (87 (RON + MON)/2) Outside North America: 92 RON

MODELS		220 ISLANDIA SE
PROPULSION		
Jet pump type	Axial flow, single stage	
Jet pump grease	Jet pump bearing grease (P/N 293 550 032) sold by BRP	
Transmission	Direct drive	
Pivoting angle of direction (nozzle)	20°	
Minimum required water level for jet pumps	90 cm (3 ft) underneath the lowest rear portion of hull	
DIMENSIONS		
Overall length	6.7 m (22 ft)	
Beam	2.52 m (99 in)	
Draft	30.5 cm (12 in)	
Weight	1 565 kg (3,450 lb)	
Seating capacity	12	
Load limit (passengers + luggage)	12 passengers OR 816 kg (1,800 lb) (based on calm water operation)	
Dead rise	20°	
DIMENSIONS (on trailer)		
Length (with swing-away tongue folded)	7.67 m (25.2 ft)	
Width	2.6 m (102 in)	
Height	2.13 m (84 in)	
Gross weight	2 351 kg (5,183 lb)	
CAPACITIES		
Engine oil (per engine)	3 L (3.2 qt (U.S. liq.)) oil change w/filter 4.5 L (4.8 qt (U.S. liq.)) total	
Engine cooling system	5.5 L (5.8 qt (U.S. liq.)) total	
Fuel tank (reserve included)	200 L (53 U.S. gal.)	
Potable water tank	76 L (20 U.S. gal.)	
MATERIALS		
Hull	Composite FRP	
Fuel tank	Polyethylene	
Seat	Base	Polyurethane
	Foam	Polyurethane

MODELS		230 CHALLENGER/SE/SP	230 WAKE
ENGINE			
Number of engines		2	
Engine type		Rotax 1503 4-TEC, 4-stroke Single Over Head Camshaft (SOHC)	
Exhaust system		Water cooled/water injected (opened loop). Direct flow from jet pump	
Lubrication	Type	Dry sump (2 oil pumps). Replaceable oil filter. Water-cooled oil cooler	
	Oil type	<p>Naturally-aspirated models (310 HP) : XPS summer grade (P/N 293 600 121) or use a 5W 40 engine oil meeting the requirements for API service classification SM, SL or SJ.</p> <p>Supercharged intercooled models (430 HP and 510 HP): XPS summer grade (P/N 293 600 121) or use a 5W 40 engine oil compatible with wet clutches. Refer to <i>RECOMMENDED ENGINE OIL</i> for more information.</p>	
Number of cylinders		6 (3 per engine)	
Displacement		1 493.8 cm ³ (91 in ³)	
Induction type		Naturally-aspirated OR Supercharged intercooled	
Maximum HP RPM		± 50 RPM Naturally-aspirated: 7300 Supercharged intercooled: 8000	
COOLING			
Type		Liquid cooled. Closed circuit (see also <i>EXHAUST SYSTEM</i>)	
Coolant		Ethylene-glycol and distilled water (50%/50%). Use premix coolant from BRP or a coolant specially formulated for aluminum engines	
ELECTRICAL			
Magneto generator output		360 W @ 6000 RPM	
Ignition system type		DI (Digital Inductive)	
Ignition timing		Not adjustable	
Spark plug	Make and type	NGK, DCPR8E	
	Gap	0.7 mm - 0.8 mm (.028 in - .031 in)	
Starting system		Electric starter	
Engine RPM limiter setting		Naturally-aspirated: 7650 RPM Supercharged intercooled: 8000 RPM	
Battery		⁽¹⁾ Not supplied. 12 V group 24, marine dual purpose starting and deep cycle battery with top-mounted, round taper type battery post	

MODELS		230 CHALLENGER/SE/SP	230 WAKE
ELECTRICAL (cont'd)			
Fuses (EFB)	F1: Fuel pump	10 A	
	F2: Cylinder 3, ignition coil and injection	10 A	
	F3: ECM	5 A	
	F4: Cylinder 1, ignition coil and injection	10 A	
	F5: Cylinder 2, ignition coil and injection	10 A	
	F6: Gauges	2 A	
Fuses (VCM)	F1: Accessories	10 A	
	F2: Radio	10 A	
	F3: Blower	10 A	
	F4: Bilge pump	3 A	
	F5: NAV lights	3 A	
	F6: Courtesy lights	5 A	
Fuses (boat)	Charging system	2 x 30 A	
	EFB	2 x 15 A	
	Blower motor	2 x 5 A	
	Automatic bilge pump	3 A	
	Radio memory	1 A	
	VCM	2 x 20 A	
	Retractable windshield option	2 x 15 A	
	Heating unit (Wake)	10 A	
	Ballast pump (Wake)	2 x 20 A	
	Perfect Pass (Wake)	5 A	
FUEL SYSTEM			
Fuel injection type		Rotax EMS (engine management system). Multipoint Fuel Injection. Single throttle body 52 mm	
Fuel	RECOMMENDED FOR OPTIMUM PERFORMANCE ON SUPERCHARGED INTERCOOLED MODELS		
	Type	Premium unleaded gasoline	
	Minimum octane number	Inside North America: (91 (RON + MON)/2) Outside North America: 95 RON	
	MINIMUM ALLOWED		
	Type	Regular unleaded gasoline	
	Minimum octane number	Inside North America: (87 (RON + MON)/2) Outside North America: 92 RON	

SPECIFICATIONS

MODELS		230 CHALLENGER/SE/SP	230 WAKE
PROPULSION			
Jet pump type		Axial flow single stage.	
Jet pump grease		Jet pump bearing grease (P/N 293 550 032) sold by BRP	
Transmission		Direct drive	
Pivoting angle of direction (nozzle)		20°	
Minimum required water level for jet pump(s)		90 cm (3 ft) underneath the lowest rear portion of hull	
DIMENSIONS			
Overall length		7.16 m (23.5 ft)	
Beam		2.67 m (105 in)	
Draft		30.5 cm (12 in)	
Weight		Challenger: 1 568 kg (3,457 lb) Challenger SE: 1 588 kg (3,500 lb) Challenger SP: 1 656 kg (3,650 lb)	1 712 kg (3,775 lb)
Seating capacity		12	
Load limit (passengers + luggage)		12 passengers OR 1 081 kg (2,383 lb) (based on calm water operation)	12 passengers OR 1 036 kg (2,283 lb) (based on calm water operation)
Dead rise		20°	16°
DIMENSIONS (on trailer)			
Length		8.18 m (26.8 ft)	
Width		2.67 m (105 in)	
Height	No tower	2.29 m (90 in)	
	Tower up	3.3 m (130 in)	
Gross weight		Challenger/SE: 2 354 kg (5,190 lb) Challenger SP: 2 442 kg (5,383 lb)	2 498 kg (5,508 lb)
CAPACITIES			
Engine oil (per engine)		3 L (3.2 qt (U.S. liq.)) oil change w/filter 4.5 L (4.8 qt (U.S. liq.)) total	
Engine cooling system		5.5 L (5.8 qt (U.S. liq.)) total	
Fuel tank (including reserve)		200 L (53 U.S. gal.)	
MATERIALS			
Hull		Composite FRP	
Fuel tank		Polyethylene	
Seat	Base	Polyethylene	
	Foam	Polyurethane	

MODELS		205 UTOPIA SE
ENGINE		
Number of engines		2
Engine type		Rotax 1503 4-TEC, 4-stroke Single Over Head Camshaft (SOHC)
Exhaust system		Water cooled/water injected (opened loop). Direct flow from jet pump
Lubrication	Type	Dry sump (2 oil pumps). Replaceable oil filter. Water-cooled oil cooler
	Oil type	Naturally-aspirated models (310 HP): XPS summer grade (P/N 293 600 121) or use a 5W 40 engine oil meeting the requirements for API service classification SM, SL or SJ. Supercharged intercooled models (430 HP): XPS summer grade (P/N 293 600 121) or use a 5W 40 engine oil compatible with wet clutches. Refer to <i>RECOMMENDED ENGINE OIL</i> for more information.
Number of cylinders		6 (3 per engine)
Displacement		1 493.8 cm ³ (91 in ³)
Induction type		Naturally-aspirated OR Supercharged intercooled
Maximum HP RPM ± 50 RPM		Naturally-aspirated: 7300 Supercharged intercooled: 8000
COOLING		
Type		Liquid cooled. Closed circuit (see also <i>EXHAUST SYSTEM</i>)
Coolant		Ethylene-glycol and distilled water (50%/50%). Use premix coolant from BRP or a coolant specially formulated for aluminum engines
ELECTRICAL		
Magneto generator output		360 W @ 6000 RPM
Ignition system type		DI (Digital Inductive)
Ignition timing		Not adjustable
Spark plug	Make and type	NGK, DCPR8E
	Gap	0.7 mm - 0.8 mm (.028 in - .031 in)
Starting system		Electric starter
Engine RPM limiter setting		Naturally-aspirated: 7650 RPM Supercharged intercooled: 8000 RPM
Battery		⁽¹⁾ Not supplied. 12 V group 24, marine starting battery with top-mounted, round taper type battery post

MODELS		205 UTOPIA SE
Fuses (engines)	F1: Fuel pump	10 A
	F2: Cylinder 3, ignition coil and injection	10 A
	F3: ECM	5 A
	F4: Cylinder 1, ignition coil and injection	10 A
	F5: Cylinder 2, ignition coil and injection	10 A
	F6: Gauges	2 A
Fuse (VCM)	F1: Accessories	10 A
	F2: Radio	10 A
	F3: Blower	10 A
	F4: Bilge pump	3 A
	F5: NAV lights	3 A
	F6: Courtesy lights	5 A
Fuse (boat)	VCM	2 x 20 A
	Charging system	2 x 30 A
	Automatic bilge pump	3 A
	Radio memory	1 A
	EFB	2 x 15 A
	Blower motor	2 x 5 A
	Ballast pump	20 A
FUEL SYSTEM		
Fuel injection type	Rotax EMS (engine management system). Multipoint Fuel Injection. Single throttle body (52 mm)	
Fuel	RECOMMENDED FOR OPTIMUM PERFORMANCE ON SUPERCHARGED INTERCOOLED MODELS	
	Type	Premium unleaded gasoline
	Minimum octane number	Inside North America: (91 (RON + MON))/2 Outside North America: 95 RON
	MINIMUM ALLOWED	
	Type	Regular unleaded gasoline
	Minimum octane number	Inside North America: (87 (RON + MON))/2 Outside North America: 92 RON
PROPULSION		
Jet pump type	Axial flow single stage	
Jet pump grease	Jet pump bearing grease (P/N 293 550 032) sold by BRP	
Transmission	Direct drive	
Pivoting angle of direction (nozzle)	20°	
Minimum required water level for jet pump(s)	90 cm (3 ft) underneath the lowest rear portion of hull	

MODELS		205 UTOPIA SE
DIMENSION		
Overall length		6.05 m (19.8 ft)
Beam		2.44 m (96 in)
Draft		30.5 cm (12 in)
Weight		1 166 kg (2,570 lb)
Seating capacity		8
Load limit (passengers + luggage)		8 passengers OR 599 kg (1,320 lb) (based on calm water operation)
Dead rise		20°
DIMENSIONS (on trailer)		
Length (with swing-away tongue folded)		6.32 m (20.7 ft)
Width		2.44 m (96 in)
Height	Tower down	2.16 m (85 in)
	Tower up	3.02 m (119 in)
Gross weight		1 674 kg (3,690 lb)
CAPACITIES		
Engine oil (per engine)		3 L (3.2 qt (U.S. liq.)) oil change w/filter 4.5 L (4.8 qt (U.S. liq.)) total
Engine cooling system		5.5 L (5.8 qt (U.S. liq.)) total
Fuel tank (including reserve)		166 L (44 U.S. gal.)
MATERIALS		
Hull		Composite FRP
Fuel tank		Polyethylene
Seat	Base	Polyethylene
	Foam	Polyethylene
Windshield		Tinted, tempered glass

MODELS		200 SPEEDSTER	SPEEDSTER WAKE
ENGINE			
Number of engines		2	
Engine type		Rotax 1503 4-TEC, 4-stroke Single Over Head Camshaft (SOHC)	
Exhaust system		Water cooled/water injected (opened loop). Direct flow from jet pump	
Lubrication	Type	Dry sump (2 oil pumps). Replaceable oil filter. Water-cooled oil cooler	
	Oil type	XPS summer grade (P/N 293 600 121) or use a 5W 40 engine oil compatible with wet clutches. Refer to <i>RECOMMENDED ENGINE OIL</i> for more information.	
Number of cylinders		6 (3 per engine)	
Displacement		1 493.8 cm ³ (91 in ³)	
Induction type		Supercharged intercooled	
Maximum HP RPM		± 50 RPM 8000	
COOLING			
Type		Liquid cooled. Closed circuit (see also <i>EXHAUST SYSTEM</i>)	
Coolant		Ethylene-glycol and distilled water (50%/50%). Use premix coolant from BRP or a coolant specially formulated for aluminum engines	
ELECTRICAL			
Magneto generator output		360 W @ 6000 RPM	
Ignition system type		DI (Digital Inductive)	
Ignition timing		Not adjustable	
Spark plug	Make and type	NGK, DCPR8E	
	Gap	0.7 mm - 0.8 mm (.028 in - .031 in)	
Starting system		Electric starter	
Engine RPM limiter setting		8000 RPM	
Battery	(1) Not supplied.		
		12 V group 24, marine starting battery with top-mounted, round taper type battery post	12 V group 24, marine dual purpose starting and deep cycle battery with top-mounted, round taper type battery post
Fuses (engines)	F1: Fuel pump	10 A	
	F2: Cylinder 3, ignition coil and injection	10 A	
	F3: ECM	5 A	
	F4: Cylinder 1, ignition coil and injection	10 A	
	F5: Cylinder 2, ignition coil and injection	10 A	
	F6: Gauges	2 A	

MODELS		200 SPEEDSTER	SPEEDSTER WAKE
ELECTRICAL (cont'd)			
Fuses (VCM)	F1: Accessories	10 A	
	F2: Radio	10 A	
	F3: Blower	10 A	
	F4: Bilge pump	3 A	
	F5: NAV lights	3 A	
	F6: Courtesy lights	5 A	
Fuses (boat)	VCM	2 x 20 A	
	Charging system	2 x 30 A	
	Automatic bilge pump	3 A	
	Radio memory	1 A	
	EFB	2 x 15 A	
	Blower motor	2 x 5 A	
	Ballast pump	20 A	
Perfect Pass	5 A		
FUEL SYSTEM			
Fuel injection type		Rotax EMS (engine management system). Multipoint Fuel Injection. Single throttle body 52 mm	
Fuel	RECOMMENDED FOR OPTIMUM PERFORMANCE		
	Type	Premium unleaded gasoline	
	Minimum octane number	Inside North America: (91 (RON + MON))/2 Outside North America: 95 RON	
	MINIMUM ALLOWED		
	Type	Regular unleaded gasoline	
	Minimum octane number	Inside North America: (87 (RON + MON))/2 Outside North America: 92 RON	
PROPULSION			
Jet pump type		Axial flow single stage	
Jet pump grease		Jet pump bearing grease (P/N 293 550 032) sold by BRP	
Transmission		Direct drive	
Pivoting angle of direction (nozzle)		20°	
Minimum required water level for jet pump(s)		90 cm (3 ft) underneath the lowest rear portion of hull	

SPECIFICATIONS

MODELS		200 SPEEDSTER	SPEEDSTER WAKE
DIMENSIONS			
Overall length		6.02 m (19.8 ft)	
Beam		2.44 m (8 ft)	
Draft		30.5 cm (12 in)	
Weight		1 256 kg (2,770 lb)	1 343 kg (2,960 lb)
Seating capacity		7	
Load limit (passengers + luggage)		7 passengers OR 619 kg (1,365 lb) (based on calm water operation)	7 passengers OR 581 kg (1,281 lb) (based on calm water operation)
Dead rise		20°	
DIMENSIONS (on trailer)			
Length (with swing-away tongue folded)		6.42 m (21.1 ft)	
Width		2.59 m (102 in)	
Height	Tower down	2.16 m (85 in)	
	Tower up	3.02 m (119 in)	
Gross weight		1 858 kg (4,095 lb)	1 944 kg (4,285 lb)
CAPACITIES			
Engine oil (per engine)		3 L (3.2 qt (U.S. liq.)) oil change w/filter 4.5 L (4.8 qt (U.S. liq.)) total	
Engine cooling system		5.5 L (5.8 qt (U.S. liq.)) total	
Fuel tank (including reserve)		166 L (44 U.S. gal.)	
MATERIALS			
Hull		Composite FRP	
Fuel tank		Polyethylene	
Seat	Base	Polyethylene	
	Foam	Polyurethane	

MODELS		150 SPEEDSTER		
		155 HP	215 HP	255 HP
ENGINE				
Engine type		Rotax® 1503 4-TEC, 4-stroke, Single Over Head Camshaft (SOHC)		
Exhaust system		Water cooled/water injected (opened loop). Direct flow from jet pump		
Lubrication	Type	Dry sump (2 oil pumps). Replaceable oil filter. Water-cooled oil cooler		
	Oil type	XPS summer grade (P/N 293 600 121) or use a 5W 40 engine oil meeting the requirements for API service classification SM, SL or SJ.	XPS summer grade (P/N 293 600 121) or use a 5W 40 engine oil compatible with wet clutches. Refer to <i>RECOMMENDED ENGINE OIL</i> for more information.	
Number of cylinders		3		
Displacement		1 493.8 cm ³ (91 in ³)		
Induction type		Naturally-aspirated	Supercharger intercooled	
Maximum HP RPM ± 50 RPM		7300	8000	
COOLING				
Type		Liquid cooled. Closed circuit (see also <i>EXHAUST SYSTEM</i>)		
Coolant		Ethylene-glycol and distilled water (50%/50%). Use premix coolant from BRP or a coolant specially formulated for aluminum engines		
ELECTRICAL				
Magneto generator output		360 W @ 6000 RPM		
Ignition system type		DI (Digital Inductive)		
Ignition timing		Not adjustable		
Spark plug	Make and type	NGK DCPR8E		
	Gap	0.7 mm - 0.8 mm (.028 in - .031 in)		
Starting system		Electric starter		
Engine RPM limiter setting		7650 RPM	8000 RPM	
Battery		⁽¹⁾ Not supplied. 12 V group 24, marine starting battery with top-mounted, round taper type battery post.		
Fuses (EFB)	F1: Fuel pump	10 A		
	F2: Cylinder 3, ignition coil and injection	10 A		
	F3: ECM	5 A		
	F4: Cylinder 1, ignition coil and injection	10 A		
	F5: Cylinder 2, ignition coil and injection	10 A		
	F6: Gauge	2 A		

MODELS		150 SPEEDSTER		
		155 HP	215 HP	255 HP
ELECTRICAL (cont'd)				
Fuse (VCM)	F1: Accessories	10 A		
	F2: Radio	10 A		
	F3: Blower	7.5 A		
	F4: Bilge pump	3 A		
	F5: NAV lights	3 A		
	F6: Courtesy lights (if so equipped)	5 A		
Fuse (vehicle)	VCM	2 x 20 A		
	EFB	15 A		
	Charging system	30 A		
	Automatic bilge pump	3 A		
	Radio memory	1 A		
FUEL SYSTEM				
Fuel injection type		Rotax EMS (Engine Management System). Multipoint Fuel Injection. Single throttle body 52 mm		
Fuel	MINIMUM ALLOWED			
	Type	Regular unleaded gasoline		
	Octane number	Inside North America: (91 (RON + MON)/2) Outside North America: 95 RON		
	RECOMMENDED FOR OPTIMUM PERFORMANCE			
	Type	—	Premium unleaded gasoline	
	Octane number	—	Inside North America: (91 (RON + MON)/2) Outside North America: 95 RON	
PROPULSION				
Jet pump type		Axial flow single stage		
Jet pump grease type		Jet pump bearing grease (P/N 293 550 032) sold by BRP		
Transmission		Direct drive		
Pivoting angle of direction (nozzle)		20°		
Minimum required water level for jet pump		90 cm (3 ft) underneath the lowest rear portion of hull		
DIMENSIONS				
Overall length		4.67 m (15.3 ft)		
Beam		2.16 m (85 in)		
Draft		30.5 cm (12 in)		
Weight	No tower	659 kg (1,454 lb)		
	With tower	669 kg (1,474 lb) w/tower		
Seating capacity		4		
Load limit (passengers + luggage) (based on calm water operation)		4 passengers OR 324 kg (715 lb)		
Deadrise		20°		

MODELS		150 SPEEDSTER		
		155 HP	215 HP	255 HP
DIMENSIONS (on trailer)				
Length		5.22 m (17.1 ft)		
Width		2.16 m (85 in)		
Height	No tower	1.5 m (59 in)		
	Tower down	2.08 m (82 in)		
	Tower up	2.54 m (100 in)		
Gross weight		952 kg (2,100 lb)		
CAPACITIES				
Engine oil		3 L (3.2 qt (U.S. liq.)) oil change w/filter 4.5 L (4.8 qt (U.S. liq.)) total		
Engine cooling system		5.5 L (5.8 qt (U.S. liq.)) total		
Fuel tank (including reserve)		79.5 L (21 U.S. gal.)		
MATERIALS				
Hull		Composite FRP		
Fuel tank		Polyethylene		
Seat	Base	Polyethylene		
	Foam	Polyurethane		

MODELS		180 CHALLENGER SE	
		215 HP	255 HP
ENGINE			
Engine type		Rotax 1503 4-TEC, 4-stroke, Single Over Head Camshaft (SOHC)	
Exhaust system		Water cooled/water injected (opened loop). Direct flow from jet pump	
Lubrication	Type	Dry sump (2 oil pumps). Replaceable oil filter. Water-cooled oil cooler	
	Oil type	XPS summer grade (P/N 293 600 121) or use a 5W 40 engine oil compatible with wet clutches. Refer to <i>RECOMMENDED ENGINE OIL</i> for more information.	
Number of cylinders		3	
Displacement		1 493.8 cm ³ (91 in ³)	
Induction type		Supercharger intercooled	
Maximum HP RPM		± 50 RPM 8000	
COOLING			
Type		Liquid cooled. Closed circuit (see also <i>EXHAUST SYSTEM</i>)	
Coolant		Ethylene-glycol and distilled water (50%/50%). Use premix coolant from BRP or a coolant specially formulated for aluminum engines	
ELECTRICAL			
Magneto generator output		360 W @ 6000 RPM	
Ignition system type		DI (Digital Inductive)	
Ignition timing		Not adjustable	
Spark plug	Make and type	NGK DCPR8E	
	Gap	0.7 mm - 0.8 mm (.028 in - .031 in)	
Starting system		Electric starter	
Engine RPM limiter setting		8000 RPM	
Battery		⁽¹⁾ Not supplied. 12 V group 24, marine starting battery with top-mounted, round taper type battery post	
Fuses (engine)	F1: Fuel pump	10 A	
	F2: Cylinder 3, ignition coil and injection	10 A	
	F3: ECM	5 A	
	F4: Cylinder 1, ignition coil and injection	10 A	
	F5: Cylinder 2, ignition coil and injection	10 A	
	F6: Gauge	2 A	

MODELS		180 CHALLENGER SE	
		215 HP	255 HP
ELECTRICAL (cont'd)			
Fuses (VCM)	F1: Accessories	10 A	
	F2: Radio	10 A	
	F3: Blower	7.5 A	
	F4: Bilge pump	3 A	
	F5: NAV lights	3 A	
	F6: Courtesy lights (if so equipped)	5 A	
Fuses (boat)	VCM	2 x 20 A	
	EFB	15 A	
	Charging system	30 A	
	Automatic bilge pump	3 A	
	Radio memory	1 A	
FUEL SYSTEM			
Fuel injection type		Rotax EMS (engine management system). Multipoint Fuel Injection. Single throttle body 52 mm	
Fuel	RECOMMENDED FOR OPTIMUM PERFORMANCE		
	Type	Premium unleaded gasoline	
	Minimum octane number	Inside North America: (91 (RON + MON)/2) Outside North America: 95 RON	
	MINIMUM ALLOWED		
	Type	Regular unleaded gasoline	
	Minimum octane number	Inside North America: (87 (RON + MON)/2) Outside North America: 92 RON	
PROPULSION			
Jet pump type		Axial flow single stage	
Jet pump grease		Jet pump bearing grease (P/N 293 550 032) sold by BRP	
Transmission		Direct drive	
Pivoting angle of direction (nozzle)		20°	
Minimum required water level for jet pump		90 cm (3 ft) underneath the lowest rear portion of hull	

SPECIFICATIONS

MODELS		180 CHALLENGER SE	
		215 HP	255 HP
DIMENSIONS			
Overall length		5.36 m (17.6 ft)	
Beam		2.49 m (98 in)	
Draft		30.5 cm (12 in)	
Weight	No tower	861 kg (1,898 lb) SE: 868 kg (1,913 lb)	
	With tower	877 kg (1,933 lb) SE: 902 kg (1,988 lb)	
Seating capacity		8	
Load limit (passengers + luggage) (based on calm water operation)		8 passengers OR 627 kg (1,383 lb)	
Dead rise		20°	
DIMENSIONS (on trailer)			
Length (with swing-away tongue folded)		5.9 m (19.4 ft)	
Width		2.49 m (98 in)	
Height	No tower	1.95 m (77 in)	
	Tower down	2 m (79 in)	
	Tower up	2.57 m (101 in)	
Gross weight		1 290 kg (2,843 lb)	
CAPACITIES			
Engine oil		3 L (3.2 qt (U.S. liq.)) oil change w/filter 4.5 L (4.8 qt (U.S. liq.)) total	
Cooling system (coolant)		5.5 L (5.8 qt (U.S. liq.)) total	
Fuel tank (including reserve)		121 L (32 U.S. gal.)	
MATERIALS			
Hull		Composite FRP	
Fuel tank		Polyethylene	
Seat	Base	Polyethylene	
	Foam	Polyethylene	