WATERCRAFT
PREDELIVERY
Bulletin

Date: **January 15, 2007** Subject: **Pre delivery Inspection (4-TEC™) (North America / International)** No. **2007-2**

2007		MODEL NUMBER	ENGINE (hp)	PREDELIVERY KIT P/N	SERIAL NUMBER
MODEL	PACKAGE				
GTX†	STD	147A	155	294 000 788	All
	WAKE	157A	155	294 000 788	
	WAKE	267A	215 SCIC	294 000 788	
	LTD	187A	215 SCIC	294 000 789	
GTX Inter	STD	147B	155	294 000 792	
	WAKE	157B	155	294 000 792	
	WAKE	267B	215 SCIC	294 000 792	
	LTD	187B	215 SCIC	294 000 791	
RXT™	STD	177A / 177C	215 SCIC	294 000 788	
RXT Inter	STD	177B / 177D	215 SCIC	294 000 790	
GTI™	STD	237A	130	294 000 788	
	SE	247A	130	294 000 788	
	SE	307A	155	294 000 788	
	STD-R	257A	130	294 000 794	
GTI Inter	STD	237B	130	294 000 796	
	SE	247B	130	294 000 795	
	SE	307B	155	294 000 795	
	STD-R	257B	130	294 000 796	
RXP™	STD	217A / 217C	215 SCIC	294 000 788	
	STD	287A / 287C	155	294 000 788	
RXP Inter	STD	217B / 217D	215 SCIC	294 000 793	
	STD	287B	155	294 000 793	

† GTX is a registered trademark of Castrol Ltd, 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.

⚠ WARNING

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

— The information and components/system descriptions contained in this document are correct at the time of publication. However, BRP 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 watercraft and retain a purchaser signed copy.

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

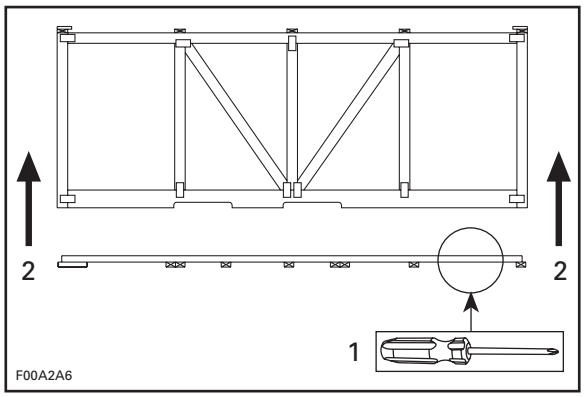
⚠ WARNING

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.

UNCRATING

Crate Cover

Model(s): All



- Carefully lay crate on its bottom.

CAUTION: Allowing crate to drop may cause serious damage to watercraft.

- Remove all screws [1] retaining crate cover to crate base.
- Assisted by another person, lift up crate cover [2].

NOTE: Do not tip cover toward front or back of watercraft. Raise cover vertically [2] from both ends at the same time.

- Remove watercraft protective bag.
- Remove parts from watercraft's storage compartments and from crate.

Lifting the Watercraft

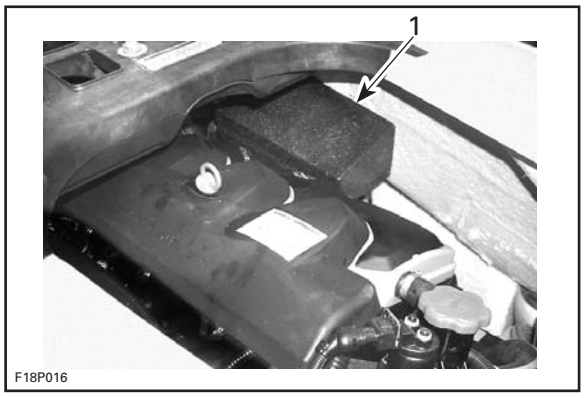
Model(s): All

- Cut strapping at watercraft front eyelet.
- Release shipping bracket at rear of watercraft from crate base.
- Lift watercraft using appropriate lift kit and install it on a proper support.

Engine Foam Protector

Model(s): International

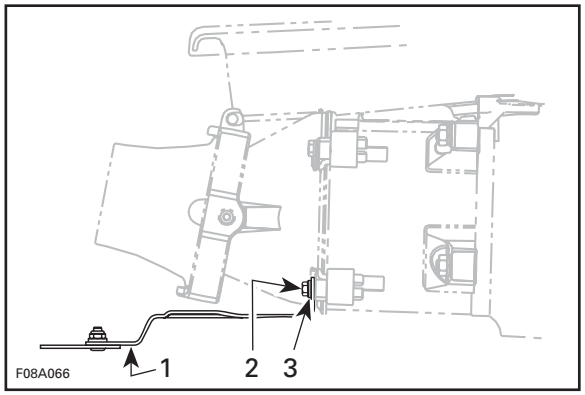
- Remove seat(s).



- Remove the foam protector [1] supporting engine.

Shipping Bracket

Model(s): All

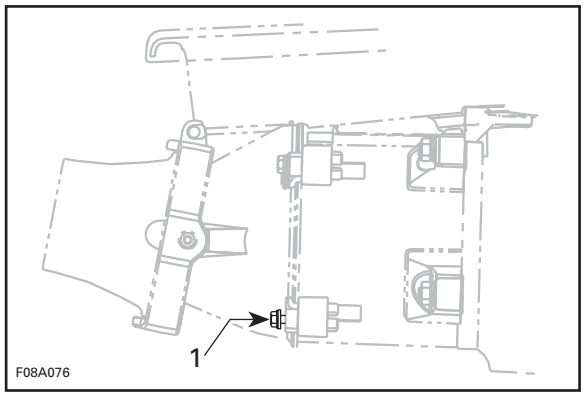


- Remove shipping bracket [1] from venturi.
- Discard shipping bracket and hexagonal bolts [2].
- Keep the flat washers [3] located between bracket and pump.

SET-UP

Venturi

Model(s): All



- Secure lower portion of the venturi [1] with:
  - 2 hexagonal bolts (with scotch grip) from predelivery kit (refer to table below).
  - 2 M8 flat washers (previously removed).

Models	Bolt	Torque
147A / 147B / 157A / 157B / 237A / 237B / 247A / 247B / 287A / 287B / 287C / 307A / 307B	M8 x 50 with scotch-grip	21 N•m (15 lbf•ft)
177A / 177B / 177C / 177D / 187A / 187B / 217A / 217B / 217C / 217D / 257A / 257B / 267A / 267B	M8 x 40 with scotch-grip	

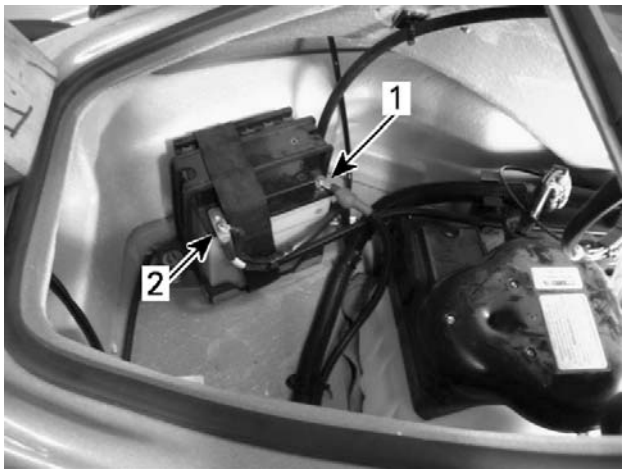
Battery Preparation and Installation

Refer to appropriate *SHOP MANUAL* for proper procedure to activate battery.

Model(s): All

- Install battery in battery support in engine compartment.
- Secure RED positive cable to battery positive post with:
  - 1 hexagonal bolt,
  - 1 flat washer and
  - 1 nut, all from predelivery kit.
- Apply dielectric grease (P/N 293 550 004) on positive battery post.
- Cover positive battery post with rubber boot.

Model(s): RXP



NOTE: On RXP models, RED positive cable [1] **must be installed at a 45° angle** while BLACK negative cable [2] is still accepted at a 90° angle; refer to photo.

Model(s): All

- Secure BLACK negative cable to negative battery post with:
  - 1 hexagonal bolt,
  - 1 flat washer and
  - 1 nut, all from predelivery kit.
- Apply dielectric grease (P/N 293 550 004) on negative battery post.

⚠ WARNING

Always connect battery cables exactly in this specific order. Connect RED positive cable first, then BLACK negative ground cable.

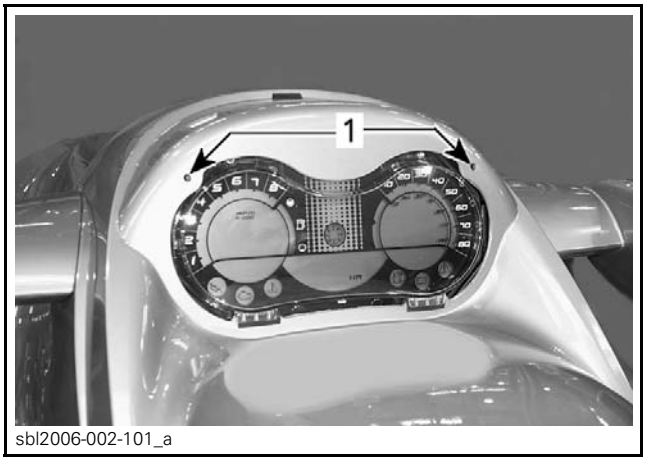
- Secure battery with supplied
  - bracket,
  - 2 flat washers and
  - 2 nuts.
- Remove red plastic cap from battery vent elbow (if so equipped).
- Install battery vent tube.

⚠ WARNING

Ensure vent tube is not kinked or obstructed. Battery vent tube must be properly installed.

Rear View Mirrors Installation

Model(s): RXT and all GTX (International)



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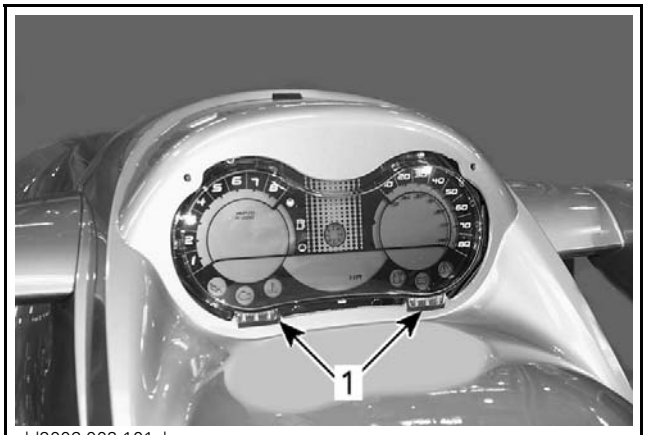
— Models **WITHOUT** the cluster bezel already installed —

- Remove and keep both screws [1] retaining instrument cluster. Unplug and set cluster aside for now.



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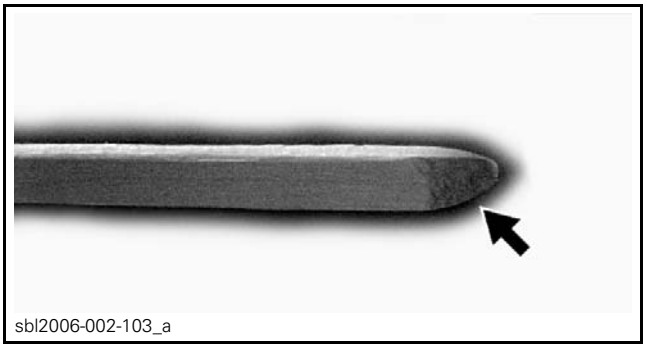
NOTE: At 2 places at bottom of cluster, rubber shims [1] are folded on body for a tight fit; care should be taken not to lose those shims so they are reused when reinstalling cluster.

— Models **WITH** the cluster bezel already installed —

CAUTION: Cluster's locking tabs may break when removing cluster bezel; extreme care must be taken while performing bezel removing procedure.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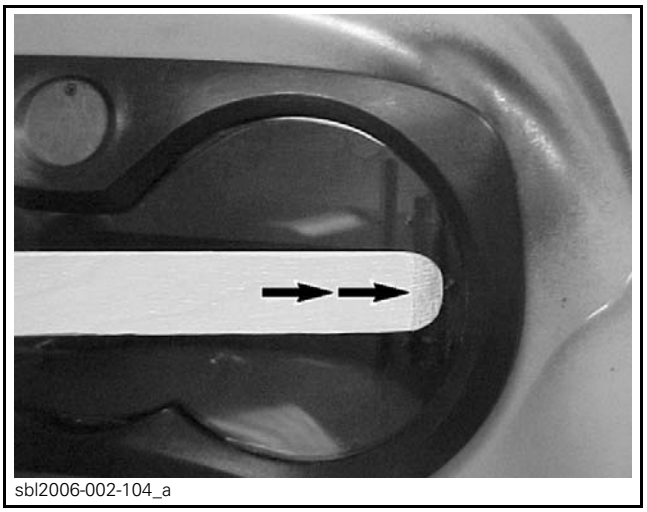
- Take a small wooden stick (coffee stirrer type) and chamfer its end; refer to photo.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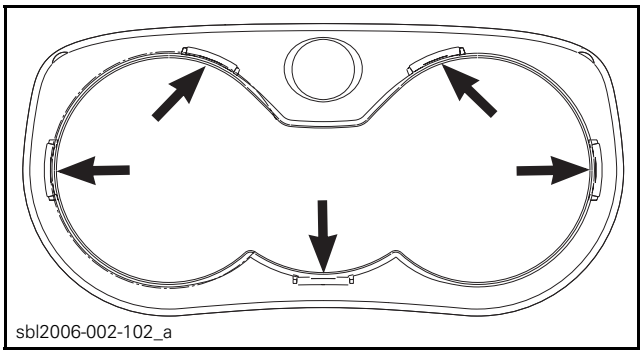
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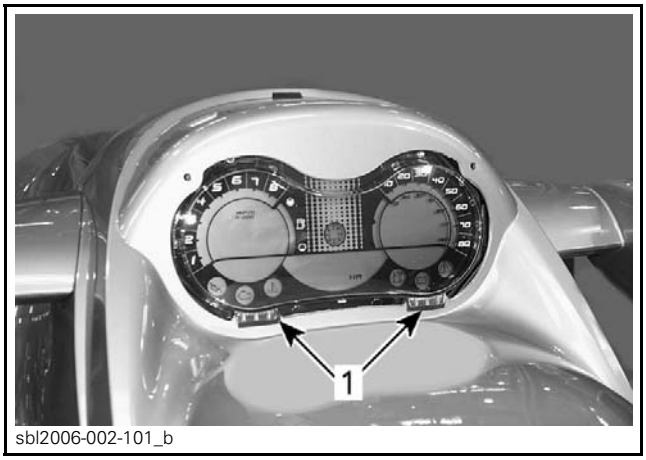
- Slide chamfered end between bezel and cluster, in line with each side locking tab, pushing out smoothly while lifting out bezel; repeat procedure with lower locking tab and then, gently lift bezel upward, out of its upper locking tabs.
- Remove and keep both screws retaining instrument cluster. Unplug and set cluster aside for now.



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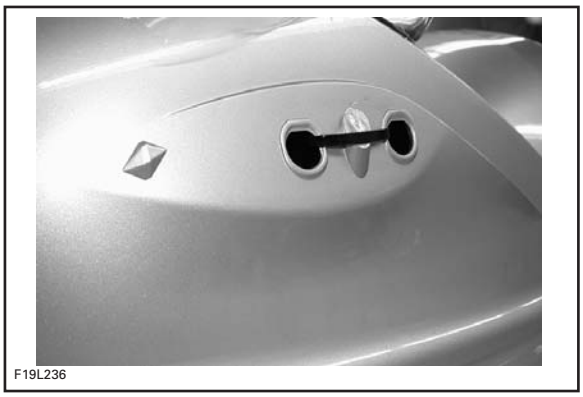
NOTE: At 2 places at bottom of cluster, rubber shims [1] are folded on body for a tight fit; care should be taken not to lose those shims so they are reused when reinstalling cluster.


F19L236

- On some models, it is required to cut the locking tie retaining support plate to front storage cover or to mirror.
- Install rear view mirrors on both sides.

NOTE: Install left and right mirrors so that inscription "OBJECTS IN MIRROR ARE CLOSER THAN THEY APPEAR" is in upright position.

- Secure each mirror with:

– 2 M8 x 120 hexagonal bolts and
– 2 M8 stainless steel flat washers, all from predelivery kit .

- Torque to 5 N•m (44 lbf•**in**).

NOTE: To ensure a correct installation, torque rear bolts (closest to mirror) before front ones.

- Reconnect instrument cluster and secure back in place using same screws.
- Torque screws to a **MAXIMUM** of 1.5 N•m (13 lbf•**in**).

— Models **WITH** the cluster bezel already installed —

- Reinstall instrument cluster bezel simply by pushing it in so it snaps back in place.

— Models **WITHOUT** the cluster bezel already installed —

- Bezel is in mirror bag; install instrument cluster bezel simply by pushing it in so it snaps in place.

Model(s): GTI SE (International Only)

- Pull out temporary plastic fasteners, 2 retaining pod and 2 retaining glove box.
- Set glove box aside.
- Align mirror support inside pod to install each side mirror.
- Secure each mirror with:
  – 2 M8 x 120 socket head bolts and
  – 2 M8 stainless steel flat washers, all from predelivery kit .
- Insert rearward screw through mirror support hole and in mirror and tighten manually.

NOTE: Install left and right mirror so that the inscription "OBJECTS IN MIRROR ARE CLOSER THAN THEY APPEAR" is in upright position.

- Insert forward screw and tighten manually.
- Without touching mirrors, complete tightening both mirrors in the following sequence:

– left rear screw then right rear;
– left front screw then right front.

- Torque to 5 N•m (44 lbf•**in**).
- Reinstall pod in place and insert 6 new rivets (from predelivery kit) in their respective holes; do not pop yet.
- Reinstall box in place and insert 4 new rivets (from predelivery kit) in their respective holes; do not pop yet.
- Secure mirror support using M10 stainless steel flat washer and M10 x 40 socket head screw from predelivery kit ; start screwing only to grab threads; do not torque yet.
- Pop all rivets, box's and pod's and then, tighten mirror support screw. Torque to 8 N•m (71 lbf•**in**).

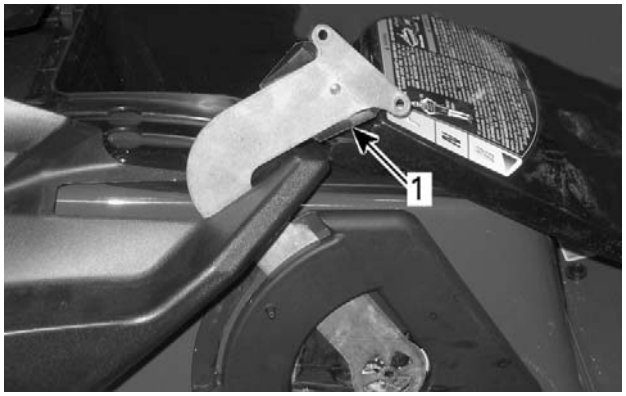
Model(s): GTI std and GTI std R International Only

- Insert 6 new rivets (from predelivery kit) in their respective holes, in pod; do not pop yet.
- Insert 4 new rivets (from predelivery kit) in their respective holes, in box; do not pop yet.

- Now that all rivets are in position, pop them from left to right and front to rear.

Reverse Handle

Model(s): GTI std, GTI std R, GTI SE International Only



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- Install reverse handle (from glove box) using guide **[**1**]**, pop rivet, and 2 Phillips† screws from predelivery kit .

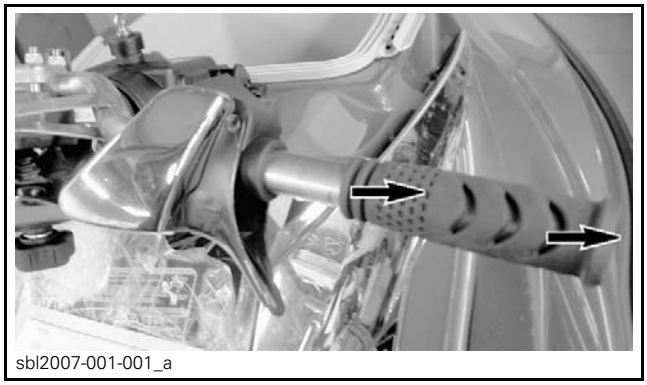
Handlebar Assembly / Handlebar Cover

Model(s): International models

– Handlebar assembly is located on the deck at the rear of vehicle or in the footrest for the RXP. To install it, refer to *HANDLEBAR ASSEMBLY* further in this bulletin.

Model(s): North American models

– Upper handlebar cover with padding is located inside front luggage compartment, underneath storage box. To install it, follow this procedure: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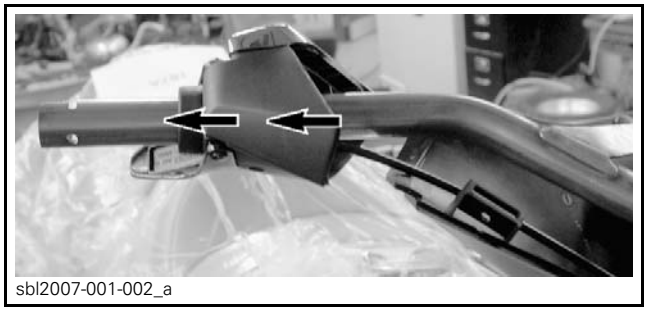
- Pull out right side handle grip and unscrew M6 x 16 throttle lever housing socket set screw.Discard screw as there are new ones in the PDI kit.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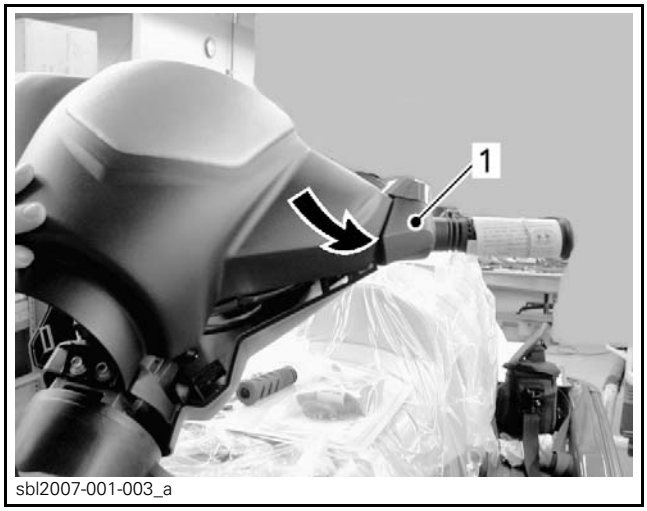
- Push out throttle lever housing just enough to gain a little room on the inside approximately 12.7 mm (1/2 in).



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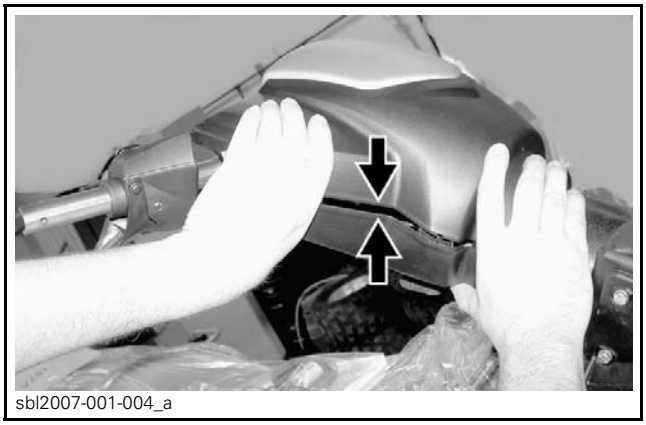
- Align and slide upper handlebar cover under left side engine stop switch housing **[**1**]** and then, close it down slowly toward right side making sure to align **all 5 male/female tabs** along the way.

† Phillips is a registered trademark of Phillips Screw Co.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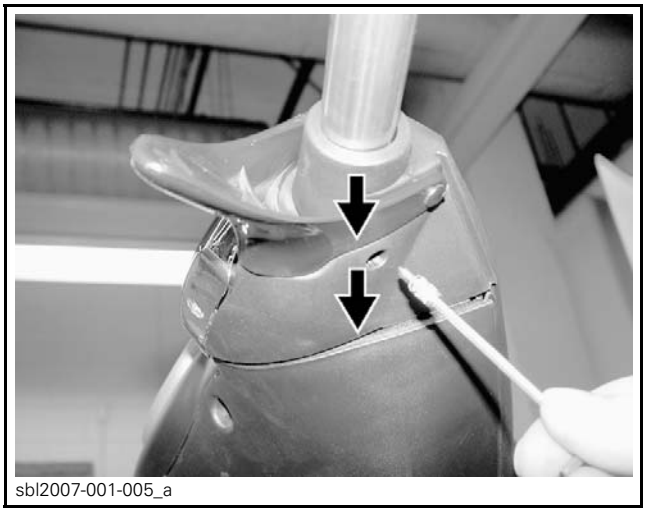
- Press upper and lower handlebar covers together so tabs clip in position.
- Secure upper and lower covers using three K40 x 16 screws included in the predelivery kit.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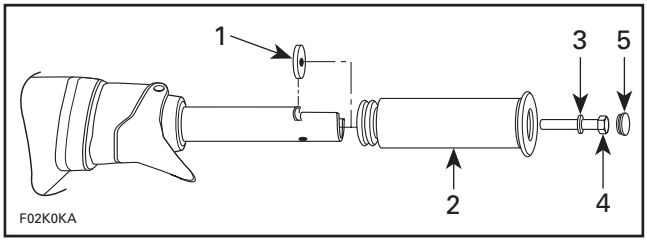
- Push throttle lever housing back in position and secure in place using an M6 x 16 socket head screw (with scotch grip — from predelivery kit).



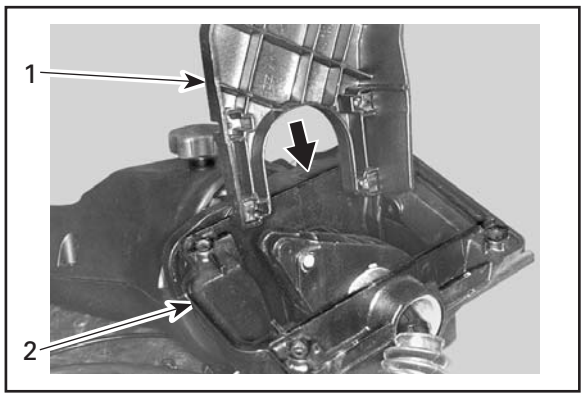
- Place an insert **[**1**]** (from predelivery kit) into notch in handlebar.
- Slide handle grip **[**2**]** back in place making sure it bottoms at proper place.
- Secure with an M6 x 30 hexagonal bolt **[**4**]** (with scotch grip — from predelivery kit) and an M6 stainless steel flat washer **[**3**]** (from predelivery kit).

CAUTION: Ensure to install flat washer otherwise screw will damage grip end.

- Torque bolt to 7 N•m (62 lbf•**in**).
- Cover bolt by inserting rubber cap **[**5**]** (from predelivery kit).

Handlebar Assembly

Model(s): International Only



- Install cable support **[**1**]** on steering support **[**2**]** and secure with:

– 3 M6 x 20 hexagonal bolts and
– 3 M6 flat washers from predelivery kit .

- Apply Loctite†† 243 (blue – threadlocker) on bolt threads.
- Torque to 5 N•m (44 lbf•**in**).
- Remove both wing nuts from threaded studs on console.

†† Loctite is a registered trademark of Loctite Corp.


F02L3W6

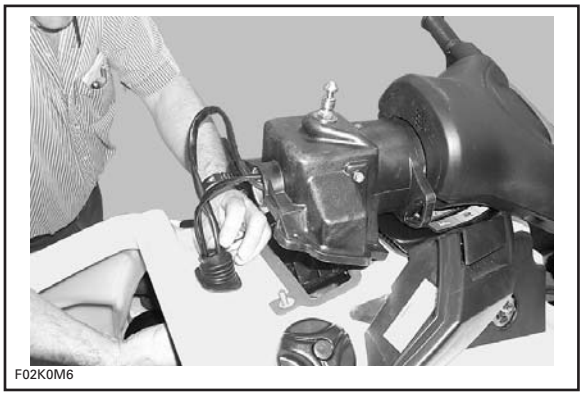
- Peel off protective film from gasket (included in predelivery kit) and position on fiberglass surface.

NOTE: Before installing gasket, make sure body surface is dry and clean. Use appropriate body and hull cleaner.

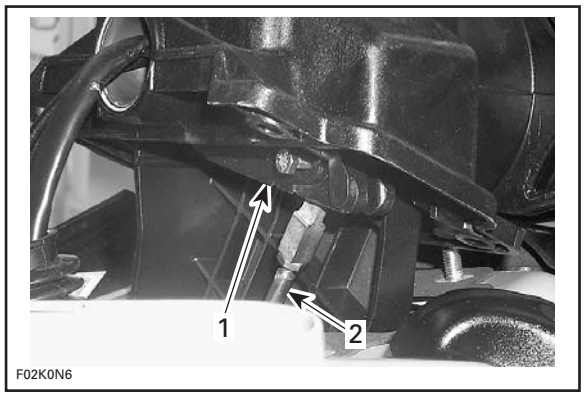
- Open front storage cover and remove storage tray (if so equipped).

Model(s): RXT and GTX International

Model(s): International


F02K0M6

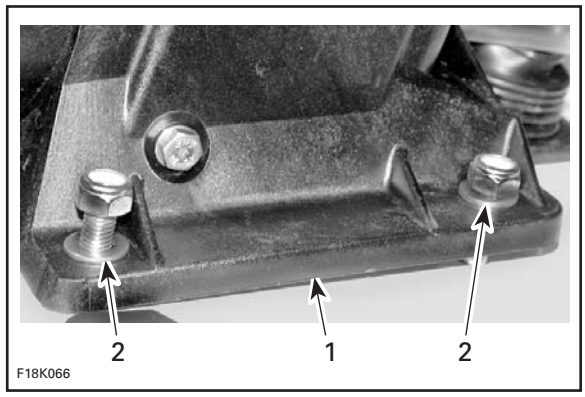
- Insert throttle cable and steering harness through console hole and position steering assembly.



F02K0N6

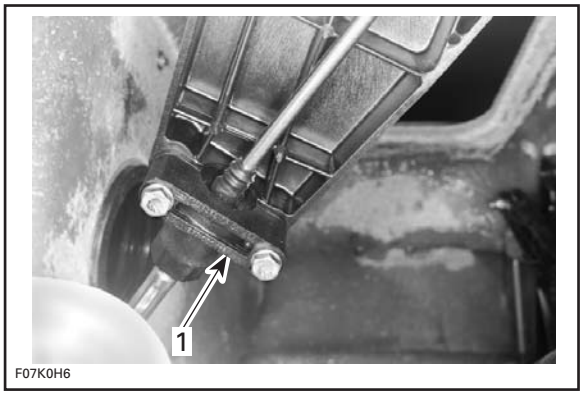
- Attach steering cable end [2] to steering stem arm [1] and secure with the M6 x 30 hexagonal bolt from predelivery kit .
- Apply Loctite 243 (blue – threadlocker) on bolt threads.
- Torque to 5 N•m (44 lbf•**in**).

NOTE: Ensure threads protrude through elastic nuts

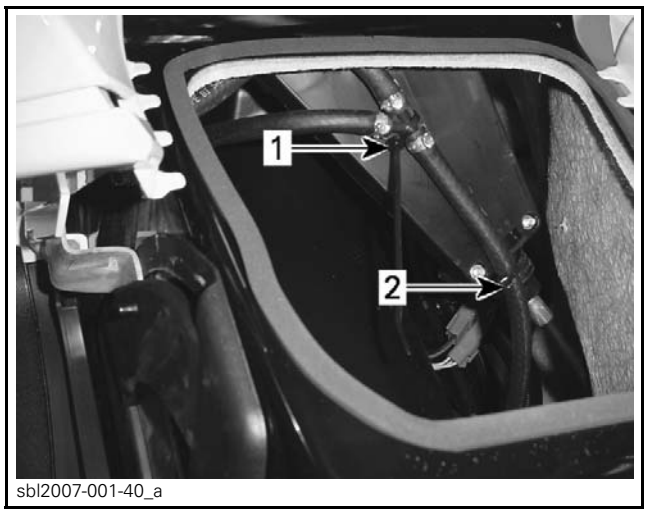


F18K066

- Secure steering assembly [1] with 4 M8 flat washers [2] and 4 M8 elastic nuts from predelivery kit .
- Apply Loctite 243 (blue – threadlocker) on bolt threads.
- Torque to 12 N•m (9 lbf•ft).



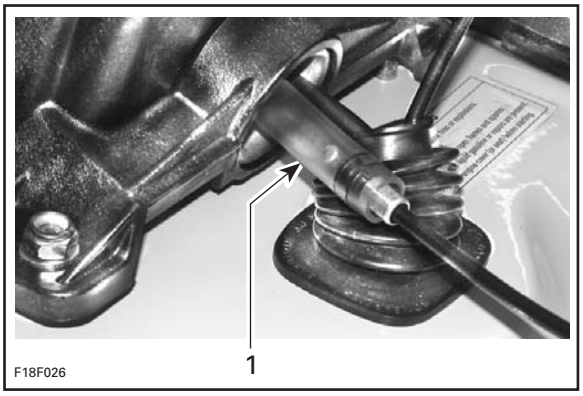
- Install support bearing [1] from predelivery kit to cable support using 2 M6 x 50 hexagonal bolts and 2 M6 flat washers from predelivery kit . **Do not torque yet**.



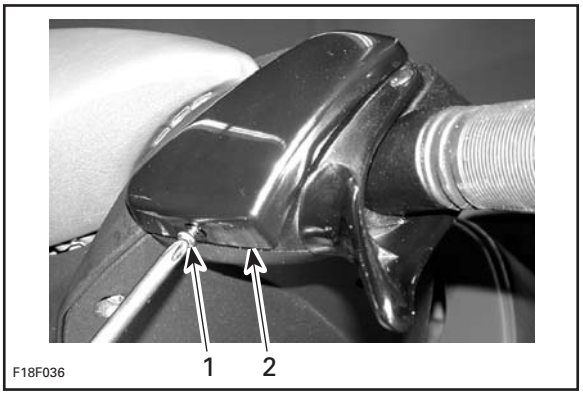
- Using 2 provided locking tie, secure vent tube as show on the picture. See [1] and [2].

Throttle Cable

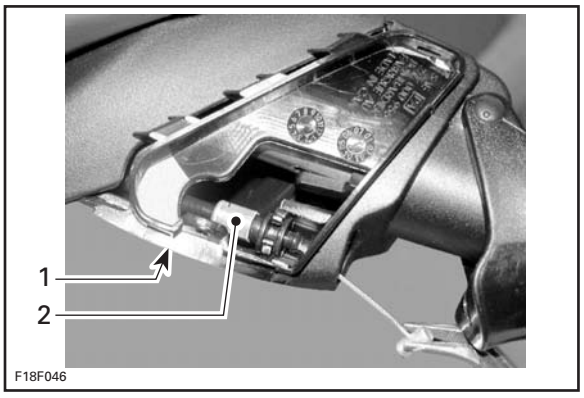
Model(s): International



- Insert end of throttle cable into plastic tube [1] leading out from steering assembly.



- Unscrew [1] and lift throttle housing cover [2].



- From handlebar side, pull hose/cable and install throttle cable [2] in throttle housing [1].
- Reinstall throttle housing cover.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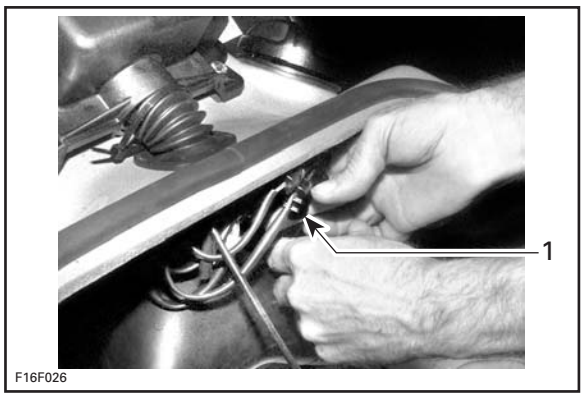
- Install throttle cable into throttle lever.

Steering Harness

Model(s): International



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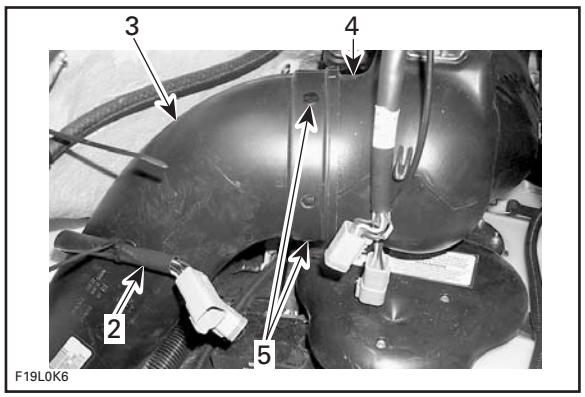
- Connect **[**1**]** steering harness connectors to main harness connectors.
- Secure with locking tie from predelivery kit or, in some cases, use existing locking tie attached to vent tube bracket.

Model(s): RXP International



F19L0K6

- Secure vent tube **[**3**]** to front collector **[**4**]** using 2 plastic darts **[**5**]** from predelivery kit .

Steering Rubber Boot

Model(s): International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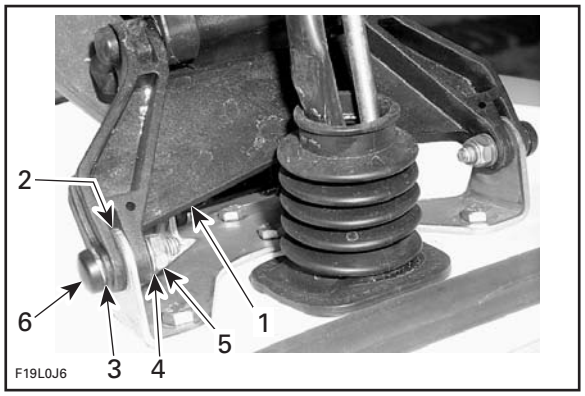
- Position rubber boot.

Storage Cover Installation

Model(s): RXP International

- Remove plastic wrapping over storage cover assembly.
- Remove access cover and storage basket from storage cover assembly.

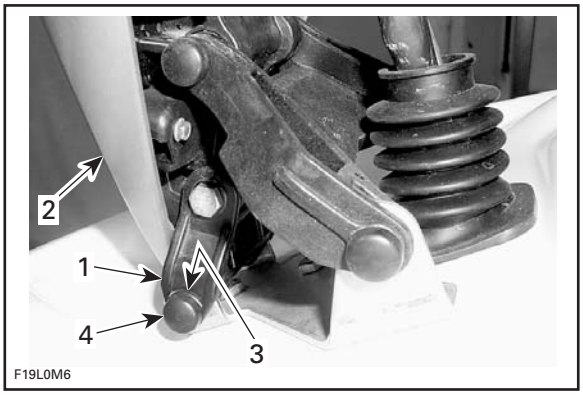


F19L0J6

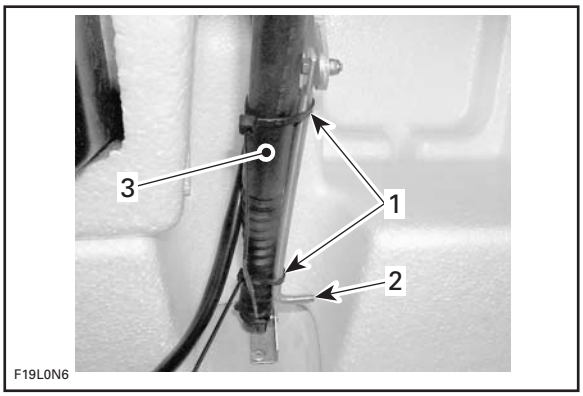
- Secure rear arm of storage cover assembly **[**1**]** to deck pivot support **[**2**]** using:

– 2 M6 x 25 hexagonal bolts **[**3**]**,
– 2 M6 flat washers **[**4**]** and
– 2 M6 elastic nuts **[**5**]**, all from predelivery kit .

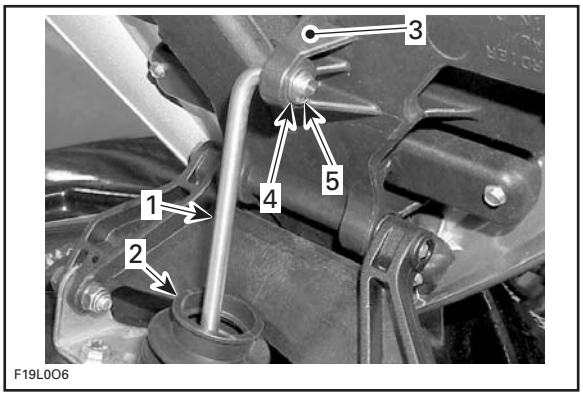
- Apply Loctite 243 (blue – threadlocker) on bolt threads.
- Torque nuts to 4 N•m (35 lbf•**in**).
- Cover bolt heads with pressure caps **[**6**]** from predelivery kit .



- Secure front arm of deck pivot support [1] to storage cover assembly [2] with the M6 x 60 hexagonal bolt [3] from predelivery kit .
- Apply Loctite 243 (blue – threadlocker) on bolt threads.
- Torque to 4 N•m (35 lbf•**in**).
- Cover bolt head with a pressure cap [4] from predelivery kit .



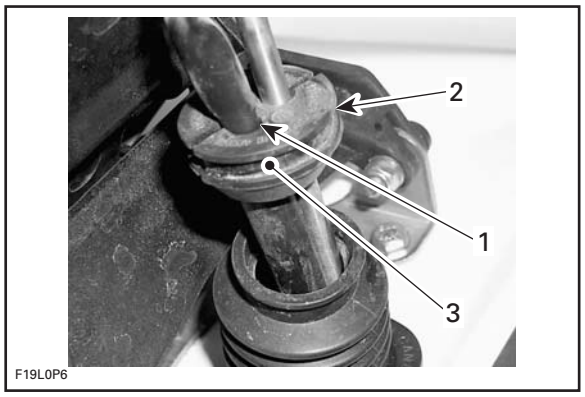
- Cut locking ties [1] holding storage cover rod [2] to shock assembly [3].



- Insert storage cover rod [1] through deck rubber grommet [2].
- Clip shock female receptacle onto bracket ball.
- Secure storage cover rod to storage cover [3] using:

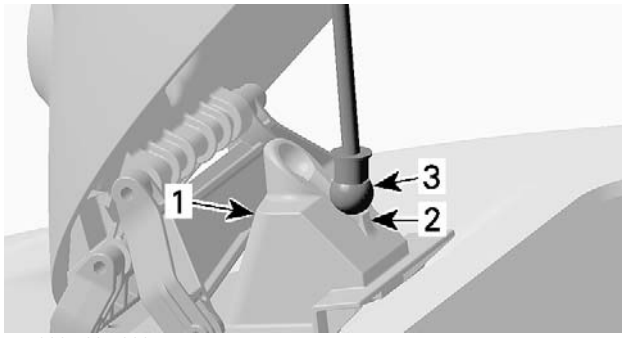
– an M6 flat washer [4] and
– a circlip [5] from predelivery kit .

NOTE: It may be necessary to compress shock to insert storage cover rod into storage cover, using a 1/2 inch drive ratchet.



- Insert storage cover harness [1] in oval hole of rubber grommet [2], from predelivery kit .
- Secure rubber grommet on left side of storage cover rod using locking tie [3], from predelivery kit .

Storage Cover Shock Installation On GTX STD,LTD and Wake



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Snap the top of shock (body side) in inner shell socket.

Place the bottom of shock [3] (rod side) against the bump [2] on the shock support [1] and close storage compartment cover. The bottom of the shock will be inserted in its place automatically.

FINAL PREPARATION

Steering Alignment

Model(s): All

- All adjustments have already been performed at factory. If readjustments are needed, check steering alignment procedure in appropriate *SHOP MANUAL*.

O.P.A.S.™ System Alignment

Model(s): All

- All adjustments have already been performed at factory. If readjustments are needed, check O.P.A.S. system alignment procedure in appropriate *SHOP MANUAL*.

Fuel

Model(s): All

- At predelivery, we suggest dealers to fill fuel tank with recommended fuel type as described in *SPECIFICATIONS TABLE*.

NOTE: Never add oil in fuel.

CAUTION: Never use fuel containing more than 10% alcohol (ethanol or methanol).

⚠ WARNING

Fuel is flammable and explosive under certain conditions. Always work in a well ventilated area.

- It might be necessary to remove and install safety lanyard 2 or 3 times to initially feed fuel system.

NOTE: This procedure should be explained to purchaser at delivery.

NOTE: Verify fuel line connectors prior to powering-up ECM. This verification must be done visually as well as manually by physically checking each connection.

⚠ WARNING

Never install safety lanyard prior to checking fuel line connector tightness.

Fuel System Pressurization

Model(s): All

⚠ WARNING

At PDI, or whenever doing any type of repair on watercraft or if any components of fuel system are disconnected, a pressure test must be done before starting engine. Ensure to verify fuel line ends for damage. Always cut damaged end before reinstallation.

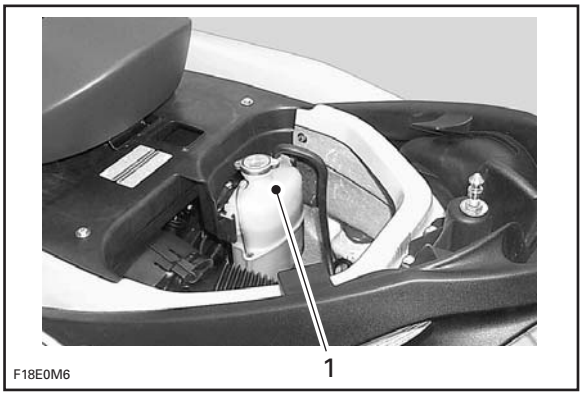
- For fuel system pressure test procedure, refer to appropriate *SHOP MANUAL*.

Coolant Level

Model(s): All

⚠ WARNING

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



- Remove seat or seat extension to expose cooling system expansion tank [1].

- With vehicle on a level surface, liquid should be between MIN. and MAX. level marks [1] of coolant reservoir when engine is cold.

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

- Add coolant to have level between marks as required.
- Use a funnel to avoid spillage.
- Do not overfill.

NOTE: Use recommended coolant type as described in the Specifications table.

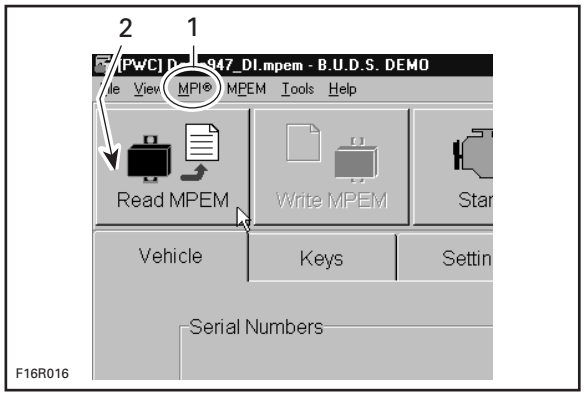
- Properly reinstall and tighten filler cap then reinstall seat.

Watercraft Identification

Model(s): All

To enter watercraft identification or to program a safety lanyard, use BRP Utility and Diagnostic Software (B.U.D.S.) in conjunction with VCK.

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



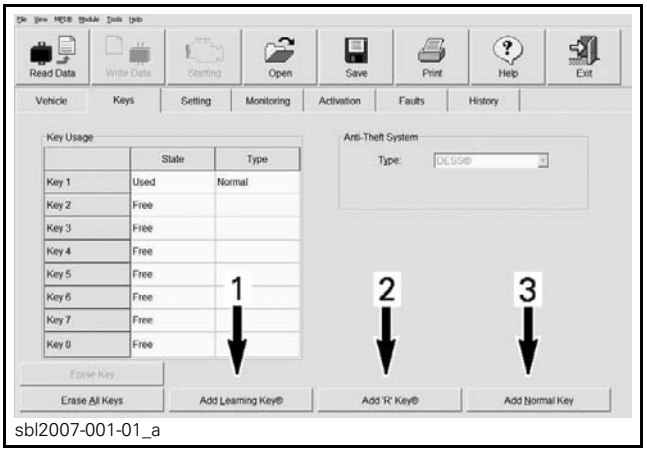
- Connect VCK components and start B.U.D.S.
- Choose KW2000 Protocol from Choose Protocol option in the MPI drop-down menu [1].
- Read ECM using leftmost icon [2].
- Click on VEHICLE tab.
- Enter purchaser name in the CUSTOMER field.
- Click on second icon of toolbar Write ECM to register new informations from MPI memory to ECM.

Programming Keys With B.U.D.S.

Model(s): All

Refer to *SERVICE BULLETIN 2007-5* in regards to the 3 different lanyard option available on ALL 4– Tec's.

Only 2 lanyards are shipped per watercraft. All models to the exception of the GTI R are shipped with Standard key and Learning key.The GTI R is shipped with the Standard key and the R key.



- Click on KEYS tab.

- If key to be added is a Normal key (yellow key), click on ADD NORMAL KEY [3] button on bottom of screen.
- If key to be added is a Learning key (white key), click on ADD LEARNING KEY [1] button on bottom of screen.
- If key to be added is a R key (orange key), click on ADD R KEY [2] button on bottom of screen.

NOTE:

- Install key on MPI or watercraft DESS post.
- A new key is now saved in the computer.

NOTE: In International predelivery kit , a special intake manifold gasket is supplied **to lower engine power** on rental units in countries where required by law.

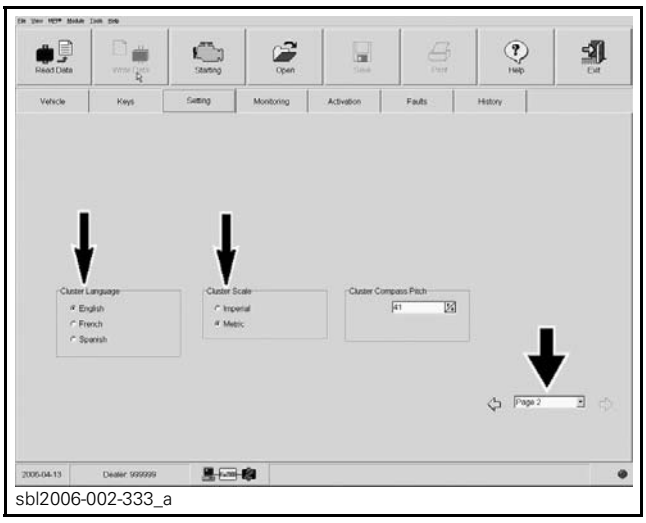
Model(s): All

- Ensure to save new data in ECM using WRITE DATA button.

⚠ WARNING

Ensure to program keys as per bulletin 2007–5.

Cluster Language / Scale Settings



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- In B.U.D.S., select "Settings", then "Page 2" to choose cluster language and scale settings (speedometer in miles or kilometers).

Ending a B.U.D.S. Session

Model(s): All

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

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

- Click on WRITE DATA button to transfer new settings and information.
- Click on EXIT button (rightmost) to end session.
- Ensure to reinstall cap over the communication connector.

Recommended Engine Oil

Model(s): Naturally Aspirated Engines

Watercraft featuring 4-stroke engines without superchargers require 4-stroke motor oil meeting requirements for API service classification SL, SJ or SH. Always check API service label on oil container to be sure it includes those letters.

The BRP 4-stroke oil SAE 10W-40 (P/N: 219 700 346) sold by authorized Sea-Doo dealers meets those requirements.

The BRP synthetic oil 5W40 is very suitable for this engine. Ensure to respect same oil change intervals with synthetic oil.

Model(s): Supercharged Intercooled Engines

Use the BRP 4-stroke oil SAE 10W-40 (P/N: 219 700 346) or an equivalent approved by BRP. The same oil lubricates both the engine and the supercharger clutch. This oil has been thoroughly tested to be free of any additives that could impair functionality of supercharger clutch.

NOTE: Use of any oil that is not recommended may void BRP's limited warranty.

CAUTION: Do not add any additives to recommended oil. Beware that oils not recommended by BRP may contain additives (friction modifiers) that may cause inappropriate slippage of supercharger and eventually lead to premature wear. For this reason, oils other than approved one or approved equivalent are not recommended.

Oil Viscosity

Same oil is recommended for all seasons and all ambient temperatures.

Engine Oil Level

Model(s): All

- Engine is factory filled with oil.
- Verify oil level using following procedure:

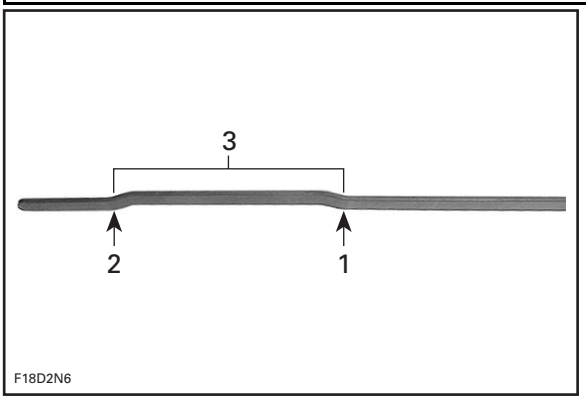
CAUTION: If watercraft is not in water, make sure to cool engine using flush kit, otherwise, engine, drive line and/or exhaust system may be severely damaged. Refer to FLUSHING in the *(OPERATOR'S GUIDE)* and follow procedure.

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

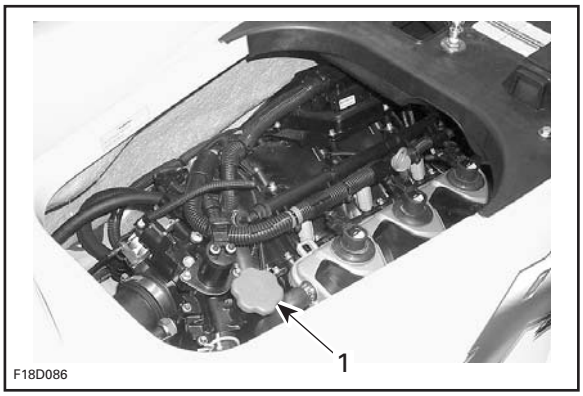
- Warm-up engine then let idle for 30 seconds before stopping.
- Stop engine.
- Wait at least 30 seconds then pull dipstick out and wipe clean.

⚠ WARNING

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



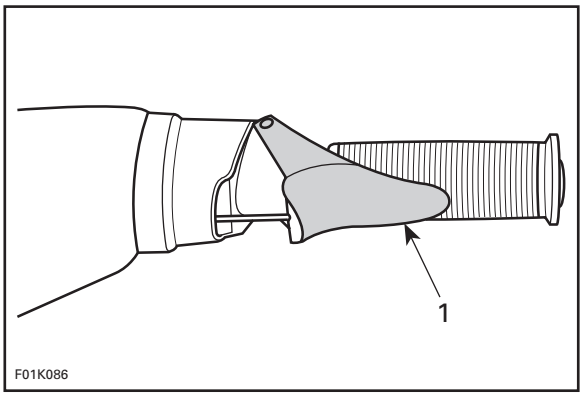
- Reinstall dipstick, push in completely.
- Remove dipstick and read oil level. It should be between marks [3].
- Mark [1] for FULL.
- Mark [2] for ADD.



- To add oil, unscrew oil cap [1]. Place a funnel into opening and add recommended oil to proper level. Do not overfill.
- Properly reinstall oil cap and dipstick.

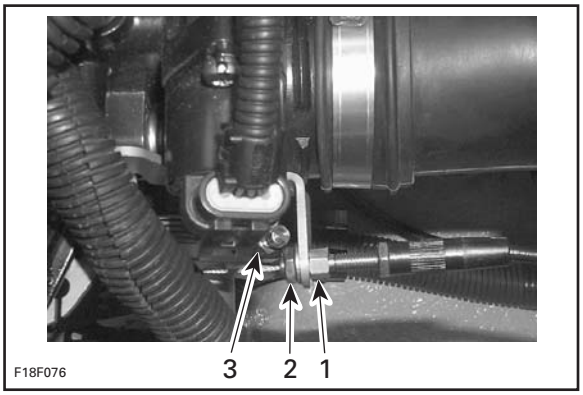
Throttle Cable

Model(s): All



- Verify adjustment of throttle cable as follows:
  - Throttle lever [1] must reach handlebar grip without causing strain to cable or cable bracket.
  - With throttle lever in full throttle position, throttle lever stopper should almost contact throttle body.
  - To verify that there is free play, apply a light pressure on throttle plate(s), a slight play should be obtained.
  - With throttle lever released, it must have a free play of 0.5 - 4 mm (1/64 - 5/32 in) in cable.

CAUTION: Improper cable adjustment will cause strain on cable and/or damage cable bracket or throttle lever at handlebar.



- To adjust throttle cable, loosen jam nut [2] then turn adjustment nut [1] as necessary.

⚠ WARNING

Make sure idle speed screw contacts throttle cam when throttle lever is fully released at handlebar.

CAUTION: Never attempt to adjust idle speed through throttle body tamper proof screw. If so, it would impair idle speed stability. Besides, no adjustment could be performed by dealer nor factory to correct idle speed. Throttle body would need to be replaced. Also take into account that it might change engine emission level and engine might not meet EPA/CARB requirements.

For more informations on throttle cable adjustment, refer to appropriate Sea-Doo *SHOP MANUAL*.

FINAL INSPECTION

General Instructions

- Make sure that tool kit and fire extinguisher are properly secured at their proper location.
- Complete *PREDELIVERY CHECK LIST* following all instructions.
- Test ride watercraft.

Decal Protective Films

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

Cleaning the Watercraft

- Clean watercraft.

CAUTION: 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.

Accessories

- On some models, accessories, such as wakeboard rack, GPS (Global Positioning System), etc., must be installed prior to delivering vehicle. Refer to appropriate *OPERATOR'S MANUAL* for complete installation procedure.

NOTE: Procedures must be explained to purchaser.

DELIVERY TO PURCHASER

General Instructions

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

Fuel System

- Explain to purchaser that it might be necessary to remove and install safety lanyard 2 or 3 times to initially feed fuel system.

Handlebar Tag

- A tag is tied to handlebar. Leave it there until delivery and make sure purchaser reads it.

Break-In Period

- Explain to purchaser that with Sea-Doo watercraft 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 engine speed every few minutes with brief wide open throttle accelerations of up to 15 seconds. Continued wide open throttle runs and prolonged cruising without speed

variations should be avoided, this can cause engine damage during break-in period.

NOTE: Never add oil in fuel tank during break-in period.

SPECIFICATIONS

Technical Specifications

MODEL			RXT	RXP
ENGINE				
Engine Type			1503 SCIC (215 hp)	
Number of Cylinder			3	
Induction Type			Mechanically driven supercharger with intercooler	
Engine Revolution Limiter Setting		±50 RPM	8000	
Intake Valve			2 x 38 mm per cylinder	
Exhaust Valve			2 x 31 mm per cylinder	
Lubrication			10W-40 motor oil (P/N 219 700 346)	
FUEL SYSTEM				
Fuel Injection Type			Multiport sequential, (52 mm) throttle body	
Idle Speed (in water)		±50 RPM	1800	
Sensors Typical Resistance	Throttle Position (TPS)		1.6 kΩ - 2.4 kΩ	
	Crankshaft Position (CPS)		190 Ω - 290 Ω	
	Manifold Air Temperature (MATS)		2.280 kΩ - 2.740 kΩ @ 20°C	
	Water Temperature (WTS)		2.280 kΩ - 2.740 kΩ	
	Manifold Air Pressure (MAPS)		6040 kΩ (terminals 2- 1) 5554 kΩ (terminals 3- 2) 5822 kΩ (terminals 3- 1)	
	Exhaust Gas Temperature (EGTS)		2.280 kΩ - 2.740 kΩ	
Fuel Injector			11.4 kΩ - 12.6 kΩ @ 20°C	
Gas Grade / Octane	RECOMMENDED: Optimum performances: PREMIUM unleaded 91 octane (RON + MON) / 2 (North America) 95 RON (outside North America) Minimum: REGULAR unleaded 87 octane (RON + MON) / 2 (North America) 91 RON (outside North America)			
ELECTRICAL				
Ignition System Type	Non adjustable timing		Digital, Inductive Type	
Spark Plug	Make and Type		NGK – DCPR8E	
	Gap		0.7 - 0.8 mm (0.028 - 0.031 in)	
PROPULSION				
Propulsion System			BRP Formula Pump	
Jet Pump Type			Axial flow single stage	
Transmission			Direct drive	
Jet Pump Grease Type			Therma Lube XL- OLC2-002	
Minimum Required Water Level			90 cm (35 in)	
Impeller	Outside Diameter / Material		159 mm (6.259 in) / Stainless steel	
LIQUIDS				
Fuel Tank Capacity (including reserve)		L (U.S. gal.)	60 (15.9)	
Cooling System Capacity		L (U.S. qt.)	5.5 (5)	
Engine Oil Capacity		L (U.S. qt.)	4.5 (4.8) for a dry engine 3.0 (3.2) after first oil change	
Impeller Shaft Reservoir Capacity (mL (U.S. oz))		10 (0.34) at front of bearing, 50 (1.7) at rear of bearing, 50 (1.7) at pump cap.		

MODEL			GTX LTD / GTX WAKE	GTX LTD / GTX WAKE / RXP
ENGINE				
Engine Type			1503 SCIC (215 hp)	1503 (155 hp)
Number of Cylinder			3	
Induction Type			Mechanically driven supercharger with intercooler	Naturally Aspirated
Engine Revolution Limiter Setting		±50 RPM	8000	7650
Intake Valve			2 x 38 mm per cylinder	
Exhaust Valve			2 x 31 mm per cylinder	
Lubrication			10W-40 motor oil (P/N 219 700 346)	
FUEL SYSTEM				
Fuel Injection Type			Multiport sequential, (52 mm) throttle body	
Idle Speed (in water)		±50 RPM	1800	
Sensors Typical Resistance	Throttle Position (TPS)		1.6 kΩ - 2.4 kΩ	
	Crankshaft Position (CPS)		190 Ω - 290 Ω	
	Manifold Air Temperature (MATS)		2.280 kΩ - 2.740 kΩ @ 20°C	
	Water Temperature (WTS)		2.280 kΩ - 2.740 kΩ	
	Manifold Air Pressure (MAPS)		6040 kΩ (terminals 2- 1) 5554 kΩ (terminals 3- 2) 5822 kΩ (terminals 3- 1)	
	Exhaust Gas Temperature (EGTS)		2.280 kΩ - 2.740 kΩ	
Fuel Injector			11.4 kΩ - 12.6 kΩ @ 20°C	
Gas Grade / Octane			RECOMMENDED: Optimum performances: PREMIUM unleaded 91 octane (RON + MON) / 2 (North America) 95 RON (outside North America) Minimum: REGULAR unleaded 87 octane (RON + MON) / 2 (North America) 91 RON (outside North America)	REGULAR unleaded 87 octane (RON + MON) / 2 (North America) 91 RON (outside North America)
ELECTRICAL				
Ignition System Type	Non adjustable timing		Digital, Inductive Type	
Spark Plug	Make and Type		NGK – DCPR8E	
	Gap		0.7 - 0.8 mm (0.028 - 0.031 in)	
PROPULSION				
Propulsion System			BRP Formula Pump	
Jet Pump Type			Axial flow single stage	
Transmission			Direct drive	
Jet Pump Grease Type			Therma Lube XL- OLC2-002	
Minimum Required Water Level			90 cm (35 in)	
Impeller	Outside Diameter / Material		159 mm (6.259 in) /	155.5 mm (6.122 in) /
LIQUIDS				
Fuel Tank Capacity (including reserve)		L (U.S. gal.)	60 (15.9)	
Cooling System Capacity		L (U.S. qt.)	5.5 (5)	
Engine Oil Capacity	L (U.S. qt.)	4.5 (4.8) for a dry engine; 3.0 (3.2) after first oil change		
Impeller Shaft Reservoir Capacity (mL (U.S. oz))		10 (0.34) at front of bearing, / 50 (1.7) at rear of bearing / 50 (1.7) at pump cap.		

MODEL			GTI SE	GTI
ENGINE				
Engine Type			1503 (130 hp — 155 hp)	1503 (130 hp)
Number of Cylinder			3	
Induction Type			Naturally Aspirated	
Engine Revolution Limiter Setting		±50 RPM	7650	
Intake Valve			2 x 38 mm per cylinder	
Exhaust Valve			2 x 31 mm per cylinder	
Lubrication			10W-40 motor oil (P/N 219 700 346)	
FUEL SYSTEM				
Fuel Injection Type			Multiport sequential, (52 mm) throttle body	
Idle Speed (in water)		±50 RPM	1800	
Sensors Typical Resistance	Throttle Position (TPS)		1.6 kΩ - 2.4 kΩ	
	Crankshaft Position (CPS)		190 Ω - 290 Ω	
	Manifold Air Temperature (MATS)		2.280 kΩ - 2.740 kΩ @ 20°C	
	Water Temperature (WTS)		2.280 kΩ - 2.740 kΩ	
	Manifold Air Pressure (MAPS)		6040 kΩ (terminals 2- 1) 5554 kΩ (terminals 3- 2) 5822 kΩ (terminals 3- 1)	
	Exhaust Gas Temperature (EGTS)		2.280 kΩ - 2.740 kΩ	
Fuel Injector			11.4 kΩ - 12.6 kΩ @ 20°C	
Gas Grade / Octane	Minimum: REGULAR unleaded 87 octane (RON + MON) / 2 (North America) 91 RON (outside North America)			
ELECTRICAL				
Ignition System Type	Non adjustable timing		Digital, Inductive Type	
Spark Plug	Make and Type		NGK – DCPR8E	
	Gap		0.7 - 0.8 mm (0.028 - 0.031 in)	
PROPULSION				
Propulsion System			BRP Formula Pump	
Jet Pump Type			Axial flow single stage	
Transmission			Direct drive	
Jet Pump Grease Type			Therma Lube XL- OLC2-002	
Minimum Required Water Level			90 cm (35 in)	
Impeller	Outside Diameter / Material		155.5 mm (6.122 in) / Stainless steel	
LIQUIDS				
Fuel Tank Capacity (including reserve)		L (U.S. gal.)	60 (15.9)	
Cooling System Capacity			5.5 (5)	
Engine Oil Capacity	L (U.S. qt.)		4.5 (4.8) for a dry engine; 3.0 (3.2) after first oil change	
Impeller Shaft Reservoir Capacity (mL (U.S. oz))			10 (0.34) at front of bearing, / 50 (1.7) at rear of bearing / 50 (1.7) at pump cap.	