



## 1996 Micro Touch Rev-Limiter Installation Instructions for all 96 Sea-Doo® watercraft with 785cc Engines 96 XP-785 / 96 GSX / 96 GTX / Excludes 95 XP-800 & All 97 Sea-Doo's

**Preface** – These instructions are intended to aid in the installation of the MT-REV-SD RAVE® Rev-Limiter Module. Please read the following completely before beginning. If there is any portion that you do not understand contact a qualified Sea-Doo Mechanic or contact technical assistance at (562) 697-2999 or you can find our most frequently asked questions on the World Wide Web @ [www.micro-touch.com/mt](http://www.micro-touch.com/mt) Basic mechanical and electrical knowledge is required. A Sea-Doo shop manual may also be of great assistance.

**NOTE:** – The installation of this MT Rev-Limiter may void the factory Sea-Doo Warranty.

### Installation Procedure

- 1) **First YOU MUST PROGRAM the MT Rev-Limiter / Timing Module !!!** Notice on the back of the engine (Between the rear cylinder and the gray driveshaft cover you will see a plate that says Bombardier, also it has the engine serial number and the engines displacement on it. Once you have located this plate look just one inch or so towards the exhaust pipe you will find another plate that says ROTAX and IGN TIMING with a number between 1-8 on this plate. If you do not have the plate that says IGN TIMING on it, the engine case will have a number stamped in it. Sometimes, this is very hard to see because they stamp the number in the engine case before the engine is painted. Once you locate the number go to step # 2. If the engine has been replaced you will not find a number or if you cannot read the number you must adjust the engine timing according to the Sea-Doo shop manual. Instead of using the programmer from Sea-Doo you will perform the final timing adjustment with the MT Rev-Limiter Module. Note the engine case number and now locate the corresponding number on the chart below: **MT Rev-Limiter is Yellow or Black for 1996**

This chart is for use with Micro Touch MT-REV-SD RAVE 96  
and to be used ONLY with Nipondenso unit # 071000-0811

Engine Case #	Degree of correction	Timing Correction Chart			Rev-Limiter Jumper # 4
		Jumper #1	Jumper #2	Jumper #3	
2	+3 deg	●	□	□	□ 7,500 RPM
3	+2 deg	□	●	□	● 7,900 RPM
4	+1 deg	●	●	□	
1	0 deg	□	□	□	
5	-1 deg	□	□	●	
6	-2 deg	●	□	●	
7	-3 deg	□	●	●	
8	-4 deg	●	●	●	

Go up on chart to advance timing

#### Legend

Jumper ON	Jumper OFF
□	●



**Jumper # 1 is closest to the wires  
The Red jumper is jumper # 4**



- 2) *It is very important that you adjust your timing to the factory Sea·Doo timing specifications. The Sea·Doo watercraft will perform best with the proper timing. **Do not advance the timing !!!** Always refer to the Sea·Doo shop manual for specifications on your watercraft. Once you have located the timing correction number and the corresponding number on the chart select the jumper setting to the right of the case number on the chart. To adjust the MT Rev-Limiter simply insert or remove the jumpers to match the chart. Jumper # 1 on the MT Rev-Limiter is the closest to the wires. For example if you found a number 5 stamped in your case this means you would insert jumpers 1 and 2 and remove jumper # 3. This will now give you the timing correction factor of ( -1 Degree ).*
- 3) *Now adjust the MT Rev-Limiter. The factory Sea·Doo Rev-Limiter is 7,000 – 7,200RPM. If you insert jumper # 4 this will give you 7,500 – 7,700RPM as a new Rev-Limit. If you remove jumper # 4 your new Rev-Limit will be 7,900 – 8,100RPM*
- 4) *Now install the MT Rev-Limiter inside the gray electrical box in the front of the watercraft.*
- 5) *Remove the gray electrical plug from the magneto housing on the front of the engine.*
- 6) *Now release the clip and ( strap if equipped ) holding the electrical box in place.*
- 7) *Loosen one of the black screw on caps a pull out the gray rubber grommet to release the air inside. This will make it much easier to open the electrical box without damaging any of the four clips. Once the electrical box is open locate the M.P.E.M. module. This is the module with the three fuse covers on top. It is also has the most wires.*
- 8) *Locate any purple wire coming from the M.P.E.M. and unplug the purple wire so you can plug in the MT Rev-Limiter purple wires. Nothing should be left disconnected!*
- 9) *Locate the Nippondenso module in the other half of the electrical box. This module should have a silver and black tag that has this 071000-0811 number on it. If this is not the number found on the module please do not go any further. You have the incorrect MT Rev-Limiter. If you have this module go on to step # 10.*
- 10) *Plug in the MT Rev-Limiter into the corresponding connectors on the Nippondenso module.*
- 11) *The MT Rev-Limiter will now rest between the M.P.E.M. and the side of the electrical box. You might have to loosen the black ground wires and rotate them to secure the MT Rev-Limiter into place.*
- 12) ***Factory Pipe ECWI™** Solenoid wire need to come out of the electrical box. Remove one of the black screw caps closest to the rev-limiter that has the fewest wires. Remove the rubber plug and you will find an extra blank hole that seals the wires into the box. Pull the long White wire through the box and cap. Use a razor blade and slice down through the rubber seal and place the Black and Red wires into this seal and reinstall the cap. Carefully run the long wire along the factory harness towards the solenoid. Now place the connector on the long White Wires and plug into the solenoid. POLARITY for these Red and Black wires does NOT matter!*
- 13) *Now carefully close the electrical box making sure all wires are inside. The electrical box should close easy. Push the gray grommet back in place and tighten the black cap.*
- 14) *Reinstall the electrical box and insert the harness back into the magneto cover.*
- 15) *At this time, it is best to check the timing to make sure your work was done correctly.*

**Note:**

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