## GSX RFI and GTX RFI Models

The digital inductive ignition system on the RFI models allows the spark plugs to spark independently.



1. Ignition coil

# MULTI-PURPOSE ELECTRONIC MODULE (MPEM)

The MPEM is directly powered by the battery. It has a micro-processor inside of its sealed case.

The MPEM is responsible of the following electrical functions:

- interpreting information
- distributing information
- start/stop function
- timer
- Digitally Encoded Security System
- ignition timing curve
- engine rev limiter

Some fuses are directly mounted onto the MPEM.

All the electrical system is controlled by the MPEM. It has internal micro-processor and is directly powered by the battery.

The MPEM features a permanent memory that will keep the programmed safety lanyard(s) active and other vehicle information, even when the battery is removed from the watercraft.

## MPFM Functions

#### Automatic Power Shut-Down

The MPEM is equipped with an automatic power shut-down. This feature prevents the battery from loosing its charge if the safety lanyard cap is left on the switch when the engine is not running.

After connecting the safety lanyard cap, the MPEM will remain in standby mode during the next 10 minutes, waiting for a starting. If start/stop button is not depressed, then the MPEM will be automatically powered down.

## **Antistart Feature**

When connecting a safety lanyard cap on the switch the DESS system inside the MPEM is activated and will emit audible signals:

- 2 short beeps indicate a right safety lanyard is being used and gauges are supplied with current for 33 seconds. The MPEM will thus allow the engines to start.
- 1 long beep indicates a wrong safety lanyard is being used or that the antistart feature is defective. Current to gauges is cut after the audible signal is emitted and the engines cannot be started

A wrong safety lanyard is a safety lanyard which is defective or not programmed in the MPEM memory.

To better understand the antistart feature, refer to DESS (DIGITALLY ENCODED SECURITY SYSTEM) 08-06.

If the MPEM responds differently from what is mentioned above, refer to the troubleshooting section to find out why.

## Gauges Current Supply

The purpose of this function is to allow reading of gauges without the engine running. It will give access to all the functions of the info center gauge (if equiped) without starting the engine.

Gauges are supplied with current for 33 seconds when connecting the safety lanyard cap on the switch or when pressing the start/stop switch without the safety lanyard on the DESS post.

**NOTE:** On the GSX RFI and GTX RFI, the fuel pump will be activated for 1 second to build up pressure in the fuel injection system, only when connecting the safety lanyard cap to the switch.