

# MAPTUNER X

## YAMAHA Quick Start Guide



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### **READ ALL PAGES BEFORE STARTING TO TUNE!**

**Maptuner X can be used with vehicles that were previously added to Maptuner 1**  
*Once your vehicle is added to the Maptuner X, do not attempt to use Maptuner 1 on the same vehicle.*

The screenshots in this manual might differ from the actual screens on your Maptuner X. We are constantly adding new functions and features. Some functions are not included with your tuning license and must be purchased separately.

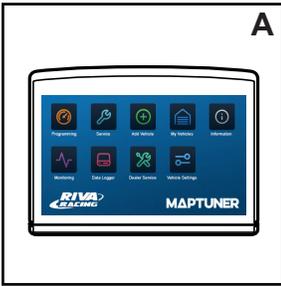
### **These instructions cover:**

**YAMAHA** | All 4 Stroke 2008+ PWC, YXZ SxS

# YAMAHA MΔPTUNER

## Required Parts & Software

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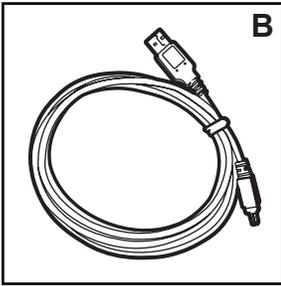


### A. RIVA Maptuner X

Quickly and easily load performance tunes into your watercraft, ATV or UTV eliminating the need to ship out your ECU for programming. Features a slick, full color, touch screen display. There is no limit to the number of vehicles or tunes you can reflash with the Maptuner X.

**RIVA Maptuner X**

Part # 01-MTX

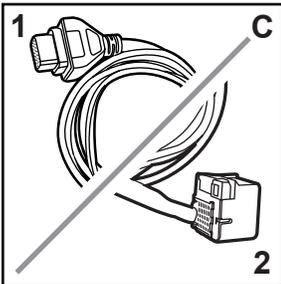


### B. Micro USB Cable

Micro USB Cable allows connection from Maptuner X to computer system. Included with all Maptuner X unit.

**Micro USB Cable Replacement**

Part # 01-MT015



### C. RIVA Maptuner X Yamaha Programming Cables

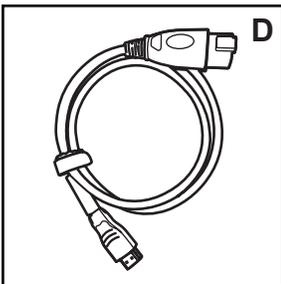
Connects Maptuner X directly to ECU communication port and battery.

1. **Yamaha 2009-17 1.8L Cable**

Part # 01-MT017

2. **Yamaha TR-1 & 2018+ 1.8L/1.9L Cable**

Part # 01-MT023

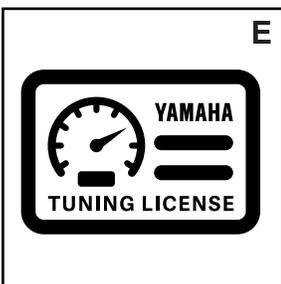


### D. Diagnostic Cable

Connects to the Maptuner X flash tuner in order to collect diagnostic information from waverunners.

**Yamaha Diagnostic Cable**

Part # 01-MT020/2

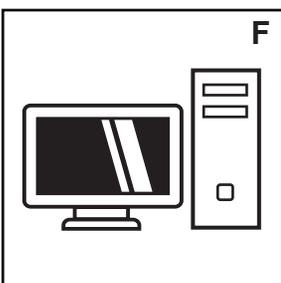


### E. RIVA Maptuner X Yamaha Tuning License

Purchase one tuning license for each Yamaha vehicle that you are flashing with the Maptuner X programmer. This license gives you access to RIVA's world famous tuning library along with unmatched technical support. Easily switch between performance tunes and then back to stock settings if you wish. Tuning licenses are VIN specific once they are activated and cannot be used on another vehicle. Tuning Licenses are emailed directly to purchaser and are non refundable once activated.

1. **Yamaha Tuning License**

Part # RY110SC-TL



### F. Computer Requirements

Requires a PC running Windows 7 operating system or higher with a working internet connection.

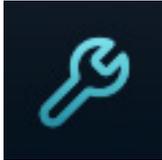
# YAMAHA MΔPTUNER

## Icon Definitions



### Programming

Use the programming button to select the files that have been downloaded onto a Riva Maptuner X device in order to add to a watercraft's ECU. Will be able to see all downloaded maps, as well as the watercraft requirements for each particular map. Download as many tunes as you want. Connect your RIVA Maptuner X to the vehicle you've elected to upgrade and press the Programming button. You can upgrade as many vehicles as you have licenses for and do it as often as you like.



### Service

Press the Service button to access the Service functions menu. Perform service functions that formerly were limited to dealers only. Your RIVA Maptuner X makes it possible for you to perform many critical service functions at home. Diagnose check engine warnings, reset maintenance interval warnings, reset the TPS when installing a new throttle body, and more.



### Fault Codes

Have a Check Engine Warning light? Press the Fault Codes Button to read your ECU's record of stored diagnostic trouble codes. This button also provides valuable information about what the codes mean and how to repair your vehicle. Use the Fault Codes button to see what parts on a watercraft are causing issues with the ECU maps & clear codes that have been fixed.

### Monitoring

Allows real time viewing of vital vehicle data, letting you see far beyond your dashboard gauge. This information is critical for performance tuning and service diagnostics. Monitors and displays multiple vehicle parameters including: Temperature Sensors, RPM, Speed, Ignition Timing, TPS, MAP Sensor & Battery Voltage. Also displays LAMBDA/O2 with optional accessories.



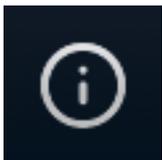
### Add Vehicle

Use the Add Vehicle button to connect vehicles to the Riva Maptuner X device. Each vehicle must be added in order to use a tuning map. Upgrade multiple vehicles with the RIVA Maptuner X. Simply connect a vehicle to the RIVA Maptuner X and press the Add Vehicle button.



### My Vehicles

Got more than one vehicle on your RIVA Maptuner X? Maybe you've got a fleet of rental units or a lot of friends who want to go faster? Use the My Vehicles button to see the list and select the unit you want to upgrade today. Use the My Vehicles button to see all vehicles installed on the RIVA Maptuner X device. Vehicle type, brand, and serials will be displayed. Users may also select which vehicle to activate and work on from this section.



### Information

Do you have the latest firmware update? Find out with the information button. Get version information. Current active vehicle information and status reports. With your RIVA Maptuner X as new functions become available you can upgrade your system to even greater functionality. Use the Information button to see specific information based on what vehicle is live from the My Vehicles section. Specifics such as VIN, Maptuner X version, and last calibration will be displayed.



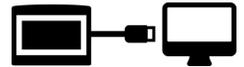
### Data Logging

The Maptuner X Data Logging Application is a powerful tuning tool for Yamaha & BRP. It allows user to record real time data directly in the Maptuner X device (not included) for later review. The Data Logger can record all data that is monitored by Maptuner X including engine sensors and output from outside accessory devices.

Part # RY11UNI-LOG

Visit RIVA's World Famous Maptuner X Tuning Library to access our growing selection of tunes!

<https://www.maptunerusa.com/tuning-library>



## Step 1

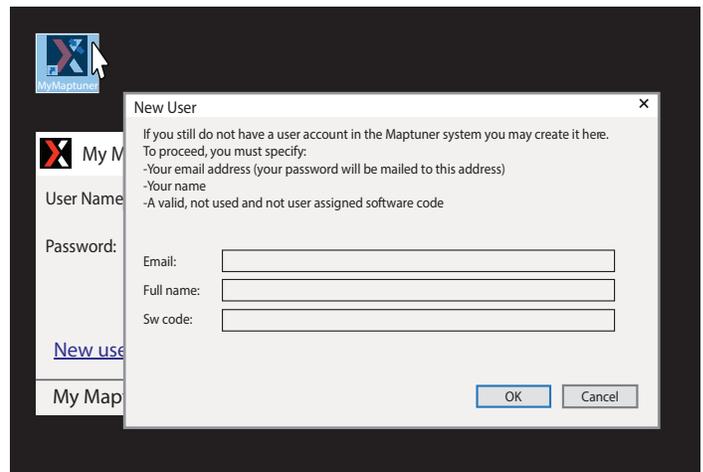
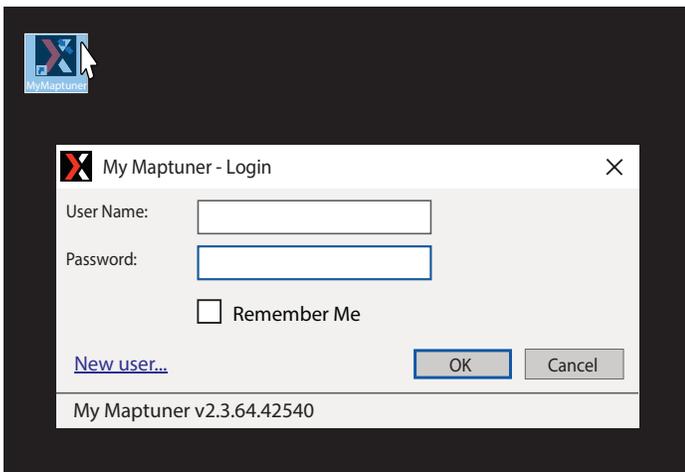
Download and install MyMaptuner software according to your Windows OS version.

<https://maptuner.se/download/Default.aspx>



## Step 2

Open MyMaptuner software. Then click New User. Enter your Email, Full Name, and Software Code that you received when purchasing your license. Your screen should look like this:



Your Login details will be emailed to you upon completion of the New User form.



## Step 3

Plug Maptuner X in to your computer and click the Synchronise button. Maptuner X will now go online and update firmware.



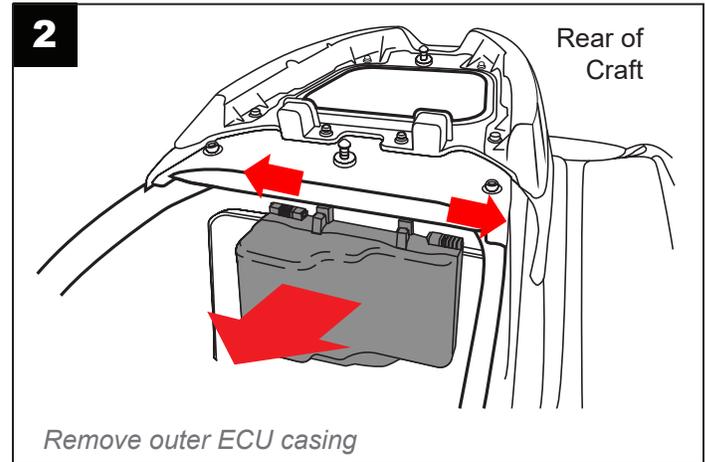
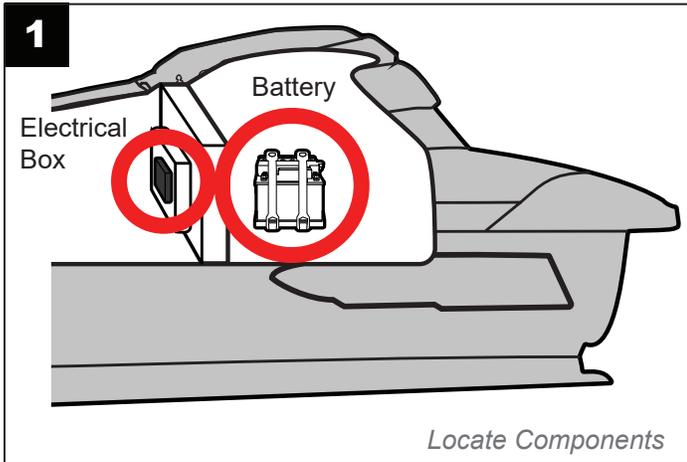
Unplug Maptuner X from computer.



## Step 4

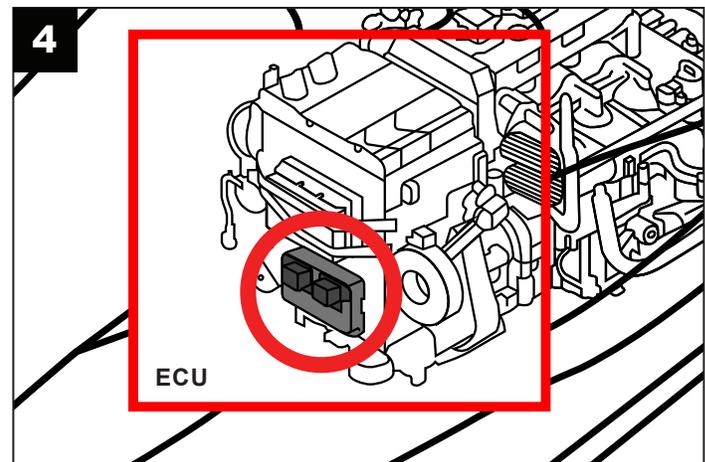
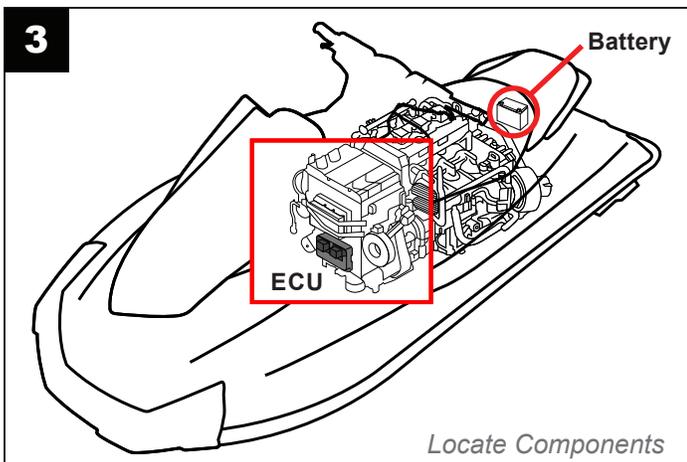
### 1.8L Engines (2009+)

Remove the Seat of your watercraft and locate the Electrical box & Battery.



### TR-1 Engines

EX models require removal of seat base for easier access to the ECU.

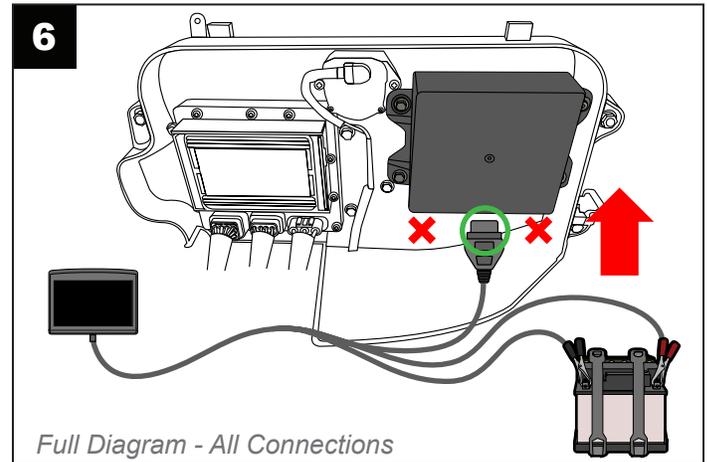
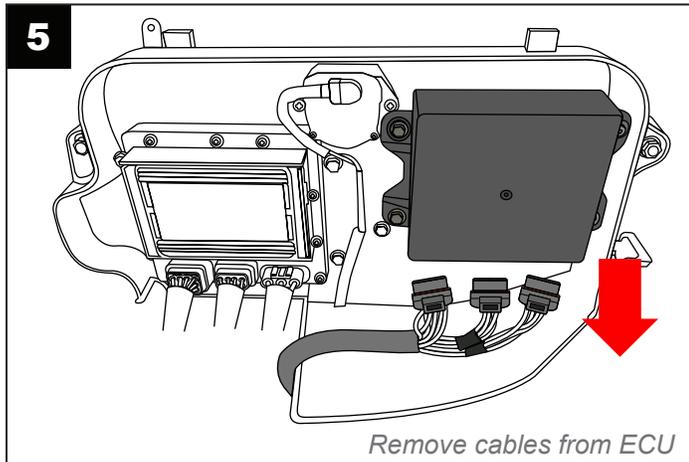




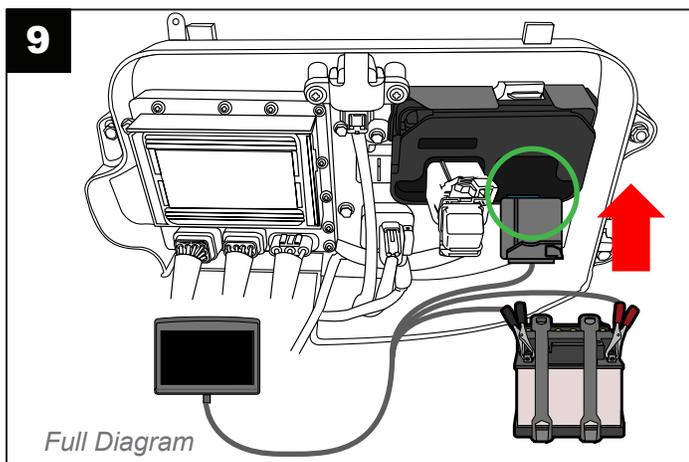
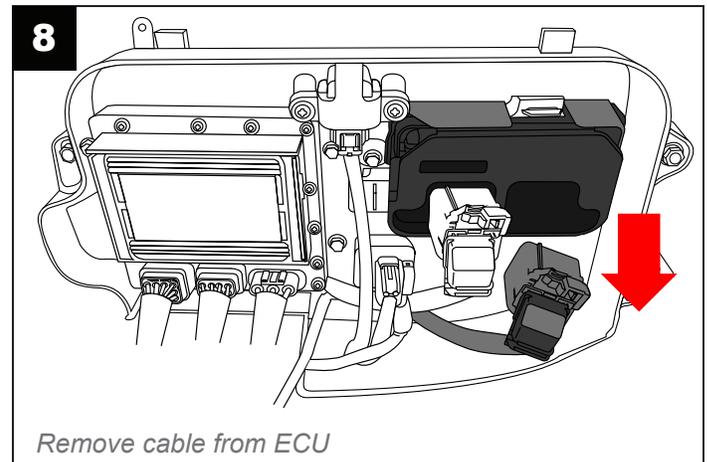
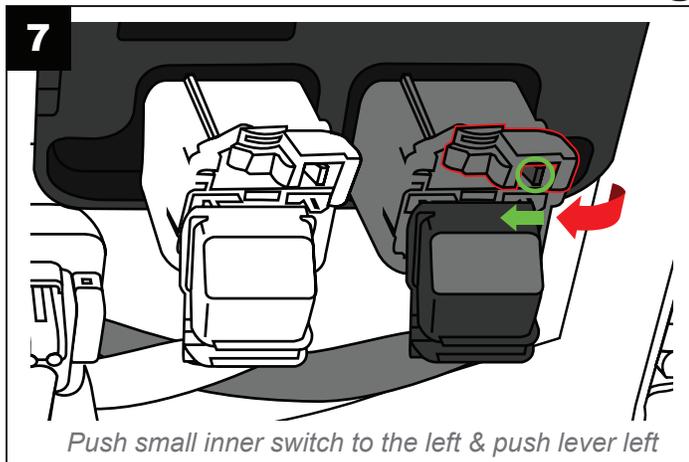
## Step 5

1. Unplug original ECU connectors.
2. Plug the Maptuner X into the ECU connector.

## 1.8L Engines (2009-17)



## TR-1 & 2018+ 1.8L/1.9L Engines

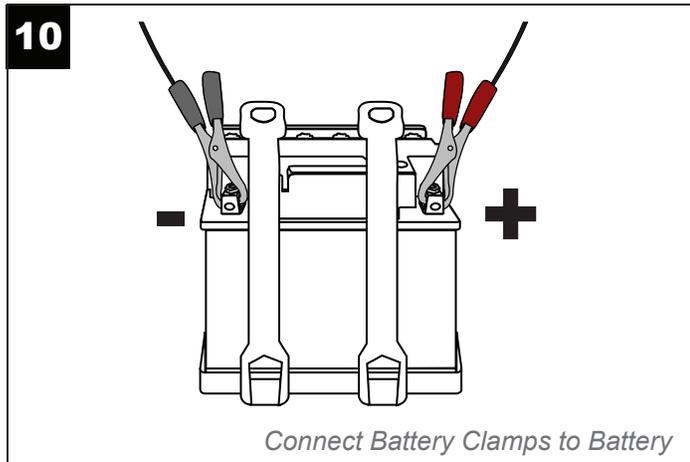




## Step 6

Connect the power cable clamps from the Yamaha programming cable to battery terminals (Fig. 10).

**!** **IMPORTANT-** Clamps must be connected correctly or damage may occur.  
RED = POSITIVE , BLACK = NEGATIVE (Ground)



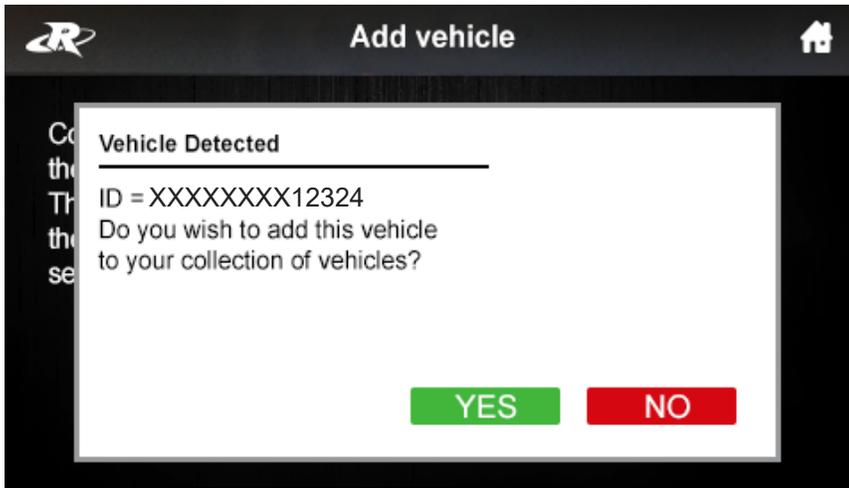
## Step 7

Now press  Add Vehicle button.



*Press the Add Vehicle Button to begin.*

Your craft will now be identified and stored on the Maptuner X. This may take several minutes depending on the ECU.



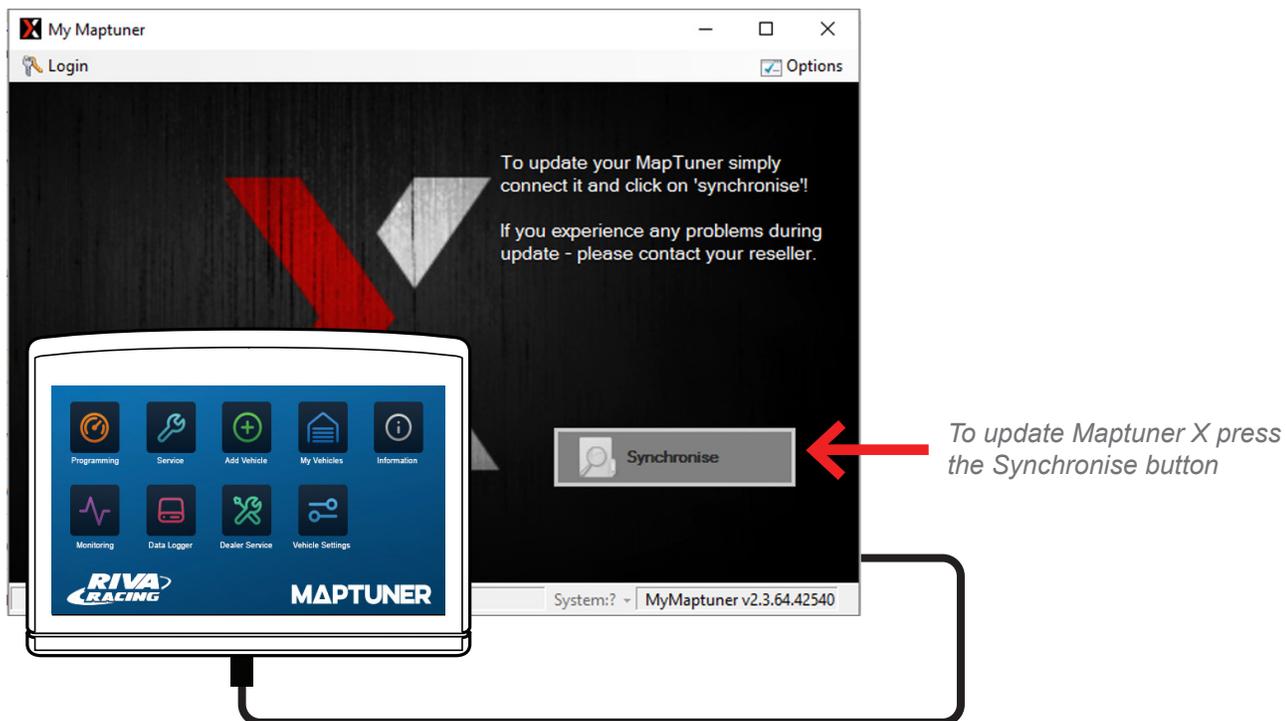
Press **YES** to add this vehicle to your collection of vehicles. After vehicle is loaded, disconnect Maptuner X from your vehicle. You will now have an added icon for My Vehicles which looks like this:

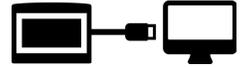


## Step 8



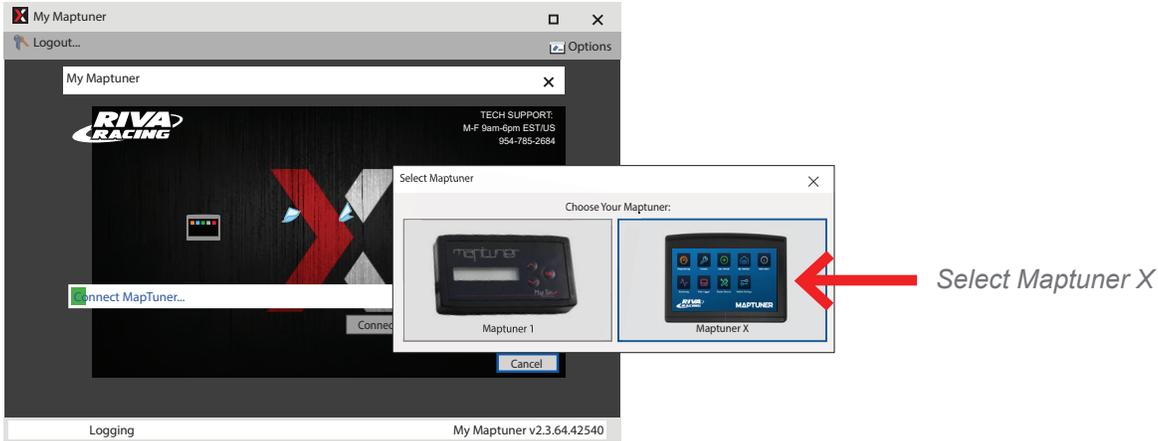
Plug Maptuner X in to your computer and click the Synchronize button. Maptuner X will now go online and update firmware.





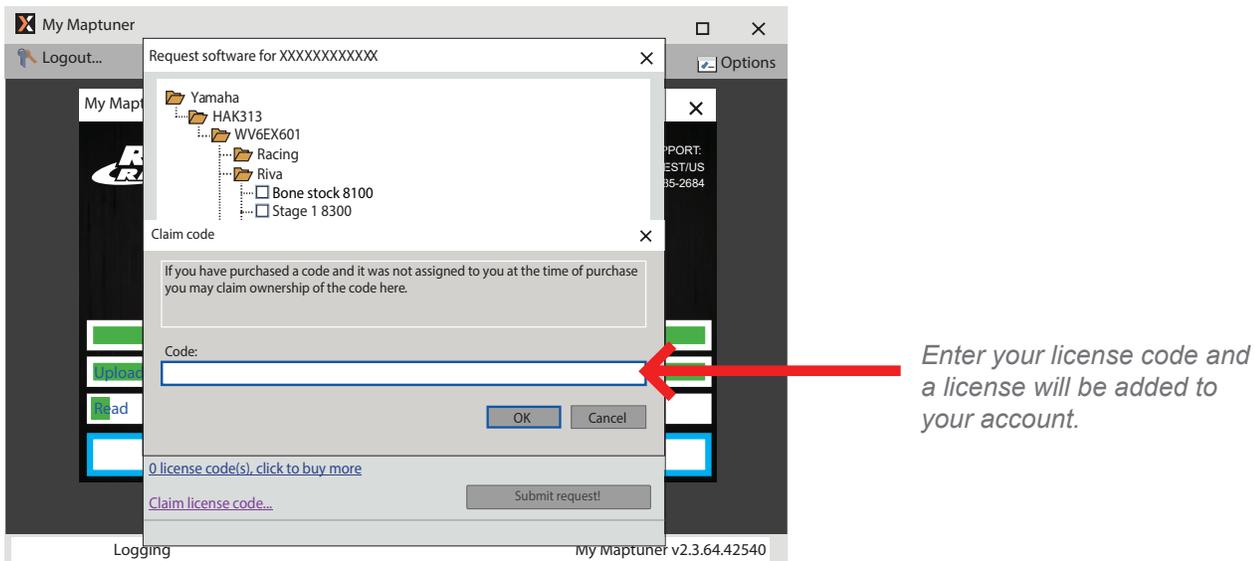
## Step 9

You will now need to choose your device. Your screen should look like this:

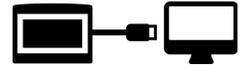


## Step 10

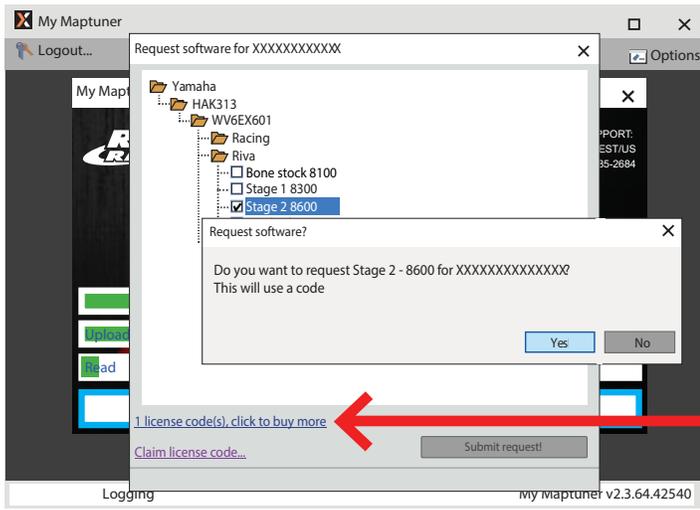
You will now need a license code. This can be bought from [rivaracing.com](http://rivaracing.com) or an authorized RIVA Racing dealer.



1. **Claim License Code.**
2. **Copy and paste License.**
3. **Click the box for the tune you want and then press Submit request.**
4. **You will now have a license available.**

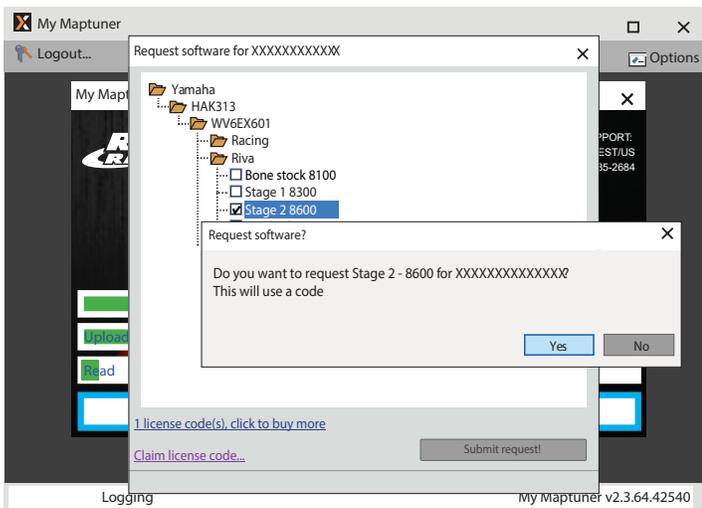


Choose the tune files that you wish to download into your account and click Submit Request again.



*You will now have a license available.*

You will be prompted to confirm your request. Double check that you selected the correct craft and then click **YES**.



Next, press the synchronize button again to transfer tune files from your PC to Maptuner X. After syncing, you'll now see these additional icons on your device:



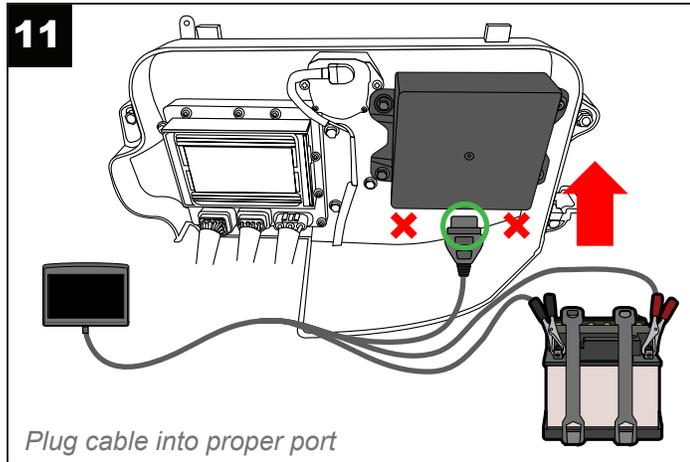
**IMPORTANT-** Installing the wrong tune for your performance package may lead to poor performance and/or engine damage. RIVA Racing is not responsible for any substitution in parts or other modifications that lead to poor performance or engine damage.



## Step 11

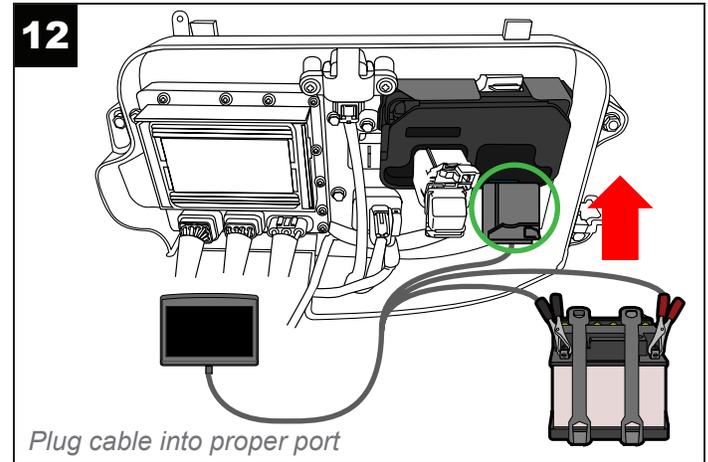
Unplug Maptuner X from computer and plug the Maptuner X in to the ECU on your vehicle (Fig 11-12)

### 1.8L Engines (2009-17)



Plug cable into proper port

### TR-1 & `18+ 1.8/1.9L Engines



Plug cable into proper port

Connect the power cable clamps from the Yamaha programming cable to battery terminals

 **IMPORTANT-** Clamps must be connected correctly or damage may occur.  
RED = POSITIVE , BLACK = NEGATIVE (Ground)

## Step 12

Press the  My Vehicles button to confirm that your craft's ID or VIN is active.



Press the My Vehicles Button to confirm ID or VIN is active.



### Step 13

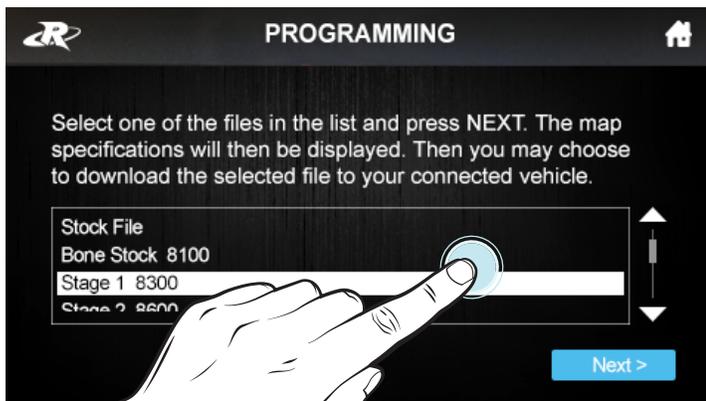
Press the  programming button on the Maptuner X display.



Press the Programming Button to begin.

### Step 14

Select the Tune you want to flash to the ECU, then press [Next >](#). Confirm that you have all parts necessary for the tune, then select [Download](#).



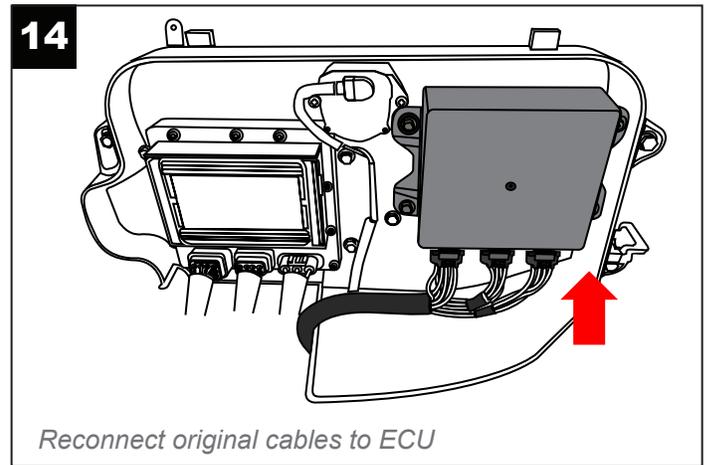
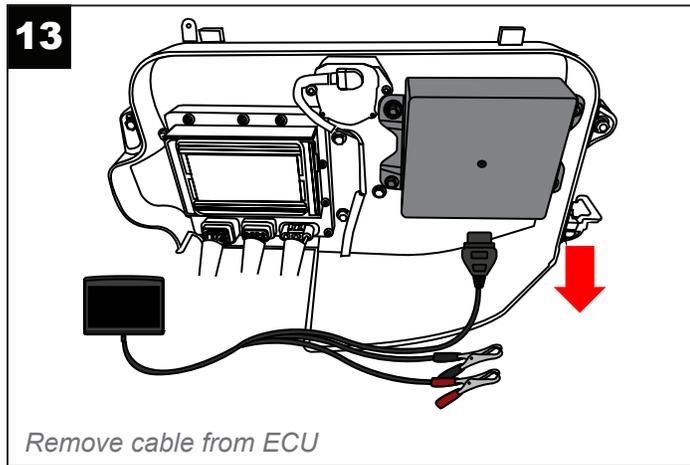
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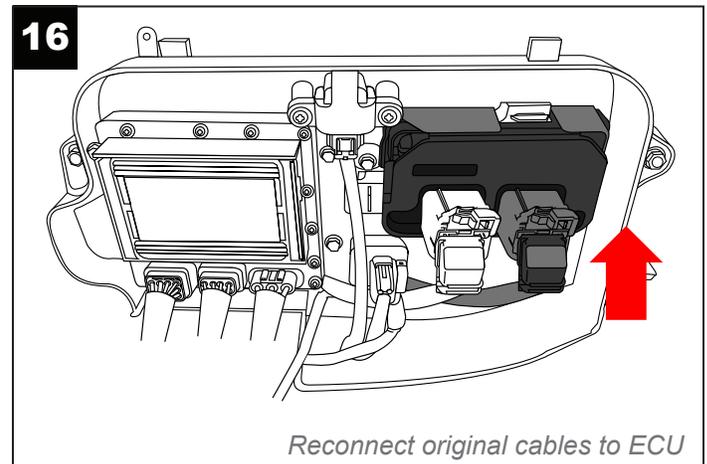
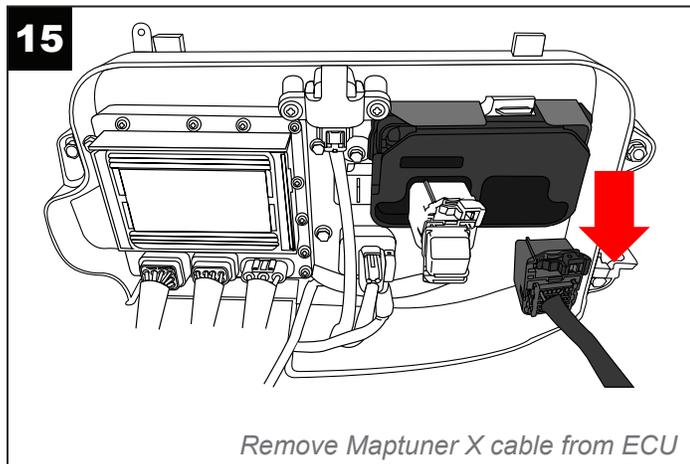
## Step 15

Once the flashing is finished, disconnect Maptuner X from vehicle and reconnect all original ECU and battery connectors (Fig. 13-16). Replace electrical box cover and test start engine. Programming is now complete!

### 1.8L Engines (2009-17)



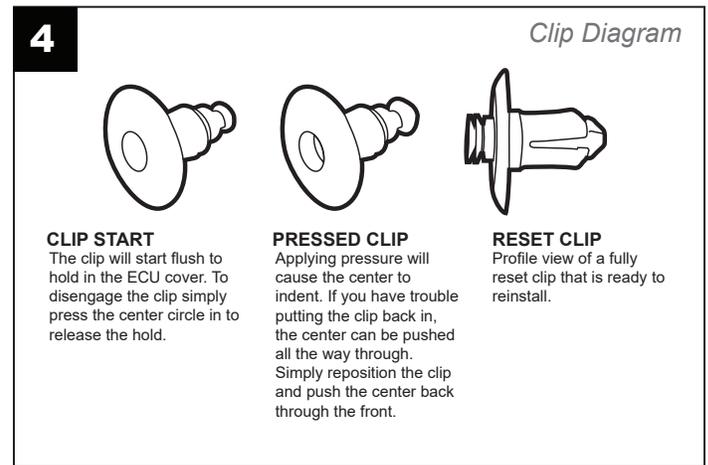
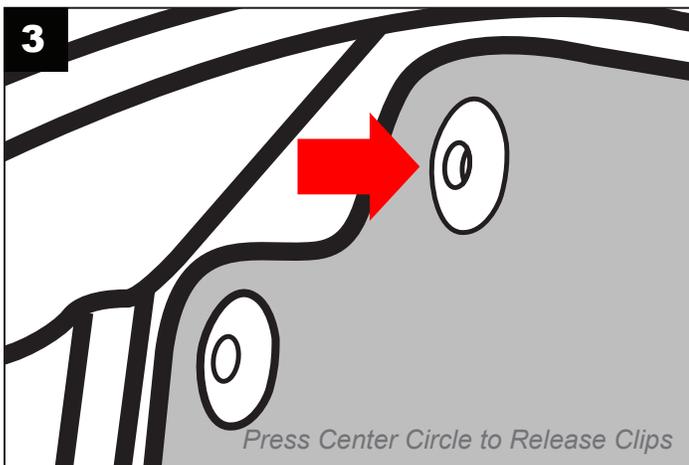
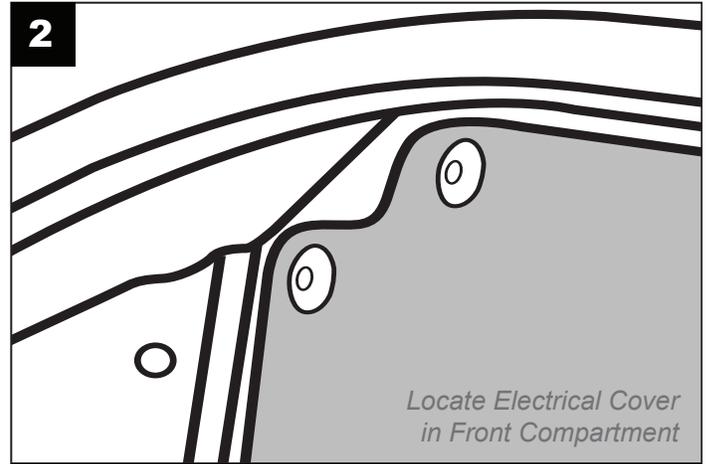
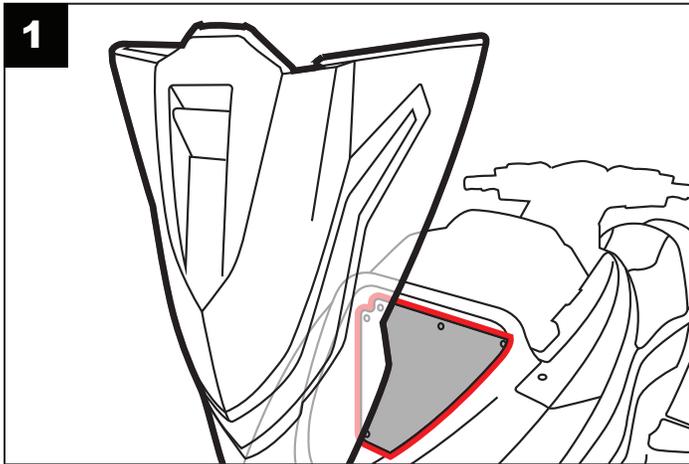
### TR-1 & 2018+ 1.8L Engines





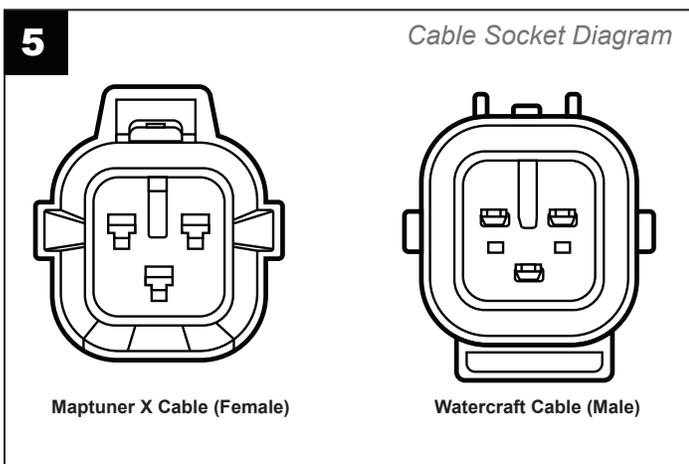
## Step 1

Remove Electrical Cover by pressing in holder clips. (Fig. 1-4)



Locate the Electrical Cover in the front storage bay of your Yamaha waverunner. Press in all clips attached to the cover to release. Keep all clips available for reinstallation of the cover.

Please note that some Electrical covers will look different from what is illustrated above (Fig 1).



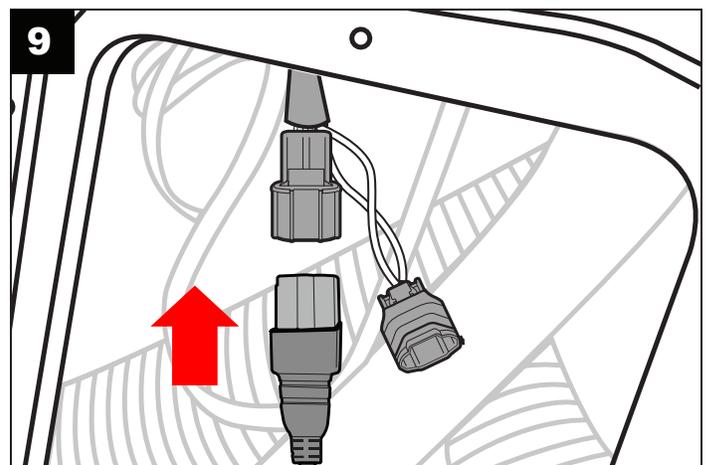
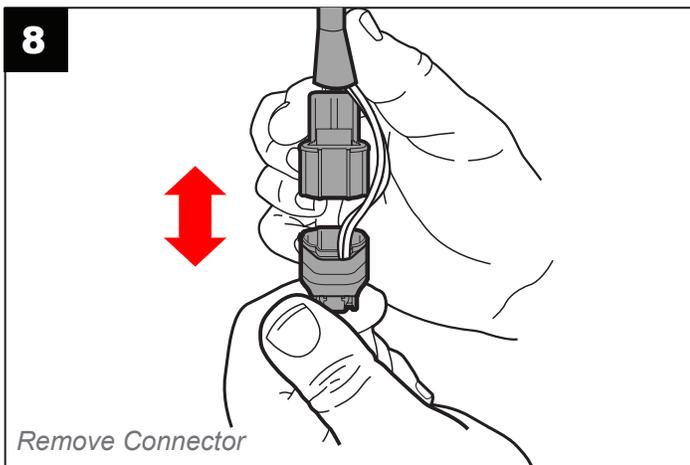
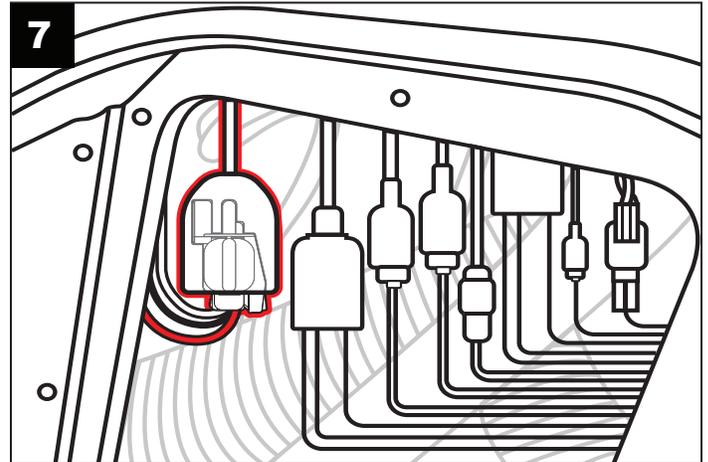
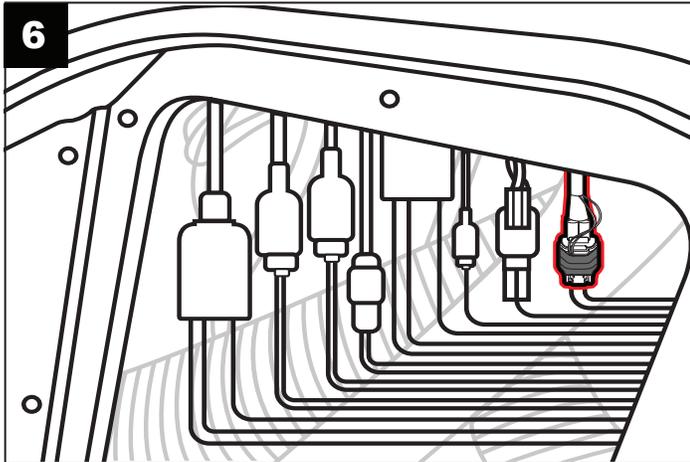
You will need to use the proper pwc cable to plug in the Maptuner X Diagnostic Cable. See (Fig 5-7).

# YAMAHA MΔPTUNER

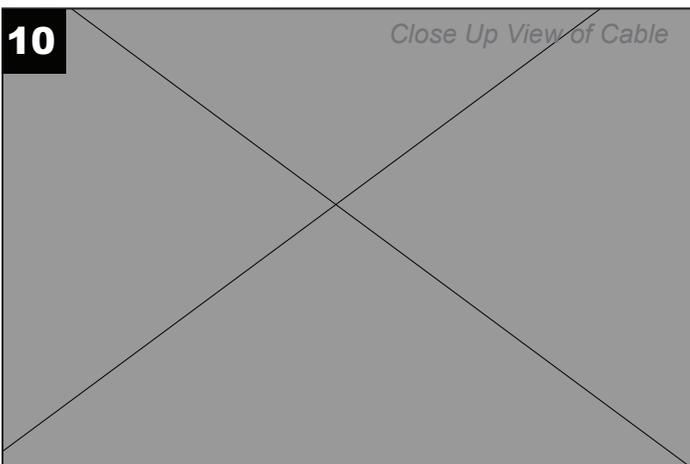
Service - Read & Clear Fault Codes

## Step 2

Locate the wiring harness plug to connect the Diagnostic Connector. Please note that on some machines you will need to disconnect the speedometer cable which can be located by looking for a cluster of red/black/white wires coming from the connector (Fig 6). Other models will have a protective cap on the diagnostic plug (Fig 7).



Pull apart the connector so the Maptuner X Diagnostic cable can be plugged in (Fig 8). You do not need to remove any black tape you see. Insert the Maptuner X cable to the Diagnostic Connector (Fig 9-10) cord or speedometer cord.



# YAMAHA MAPTUNER

Service - Read & Clear Fault Codes

## Step 3

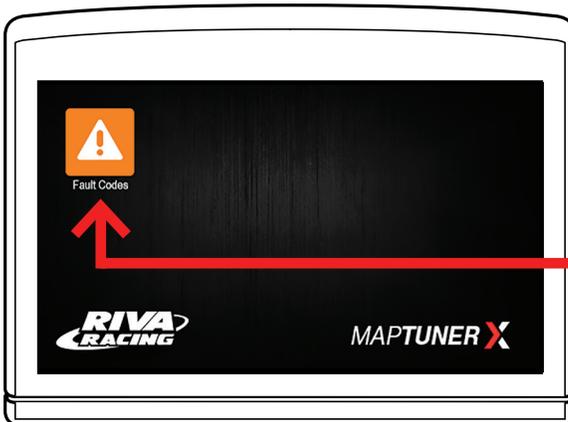
Press the  Service Button to enter the Service Section.



*Press the Service button to enter the Service Menu*

## Step 4

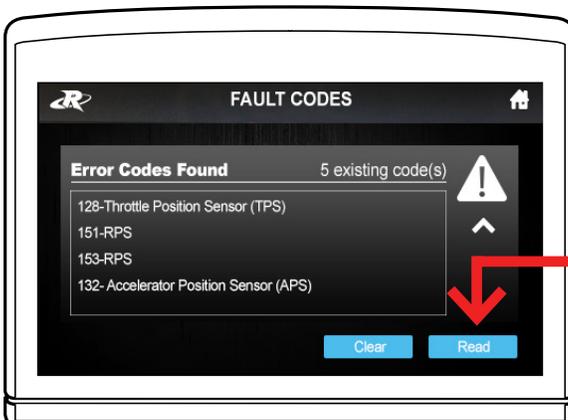
Press the  Fault Codes button to enter the Read & Clear Error Codes section.



*Press the Fault Codes button to read and clear errors.*

## Step 5

Press the  Read button to identify all fault codes, and then press the  Clear button to remove all the codes.

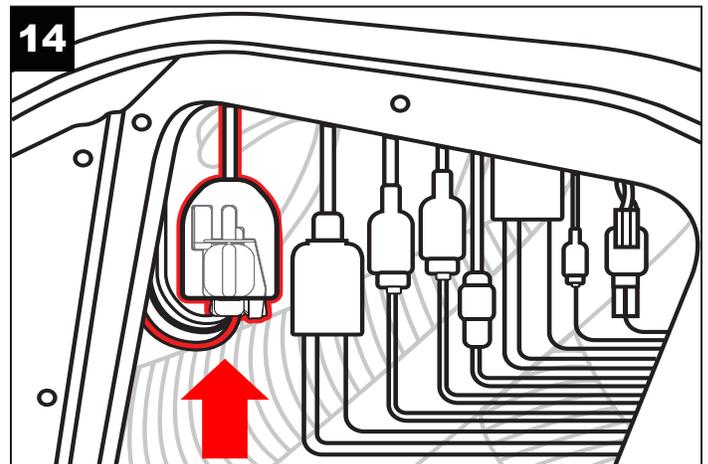
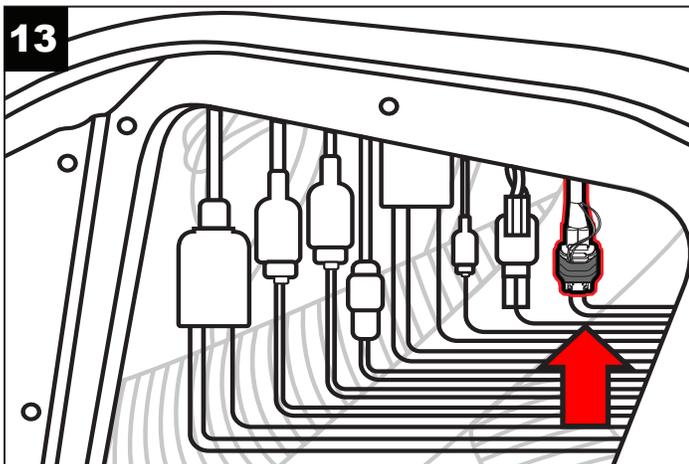
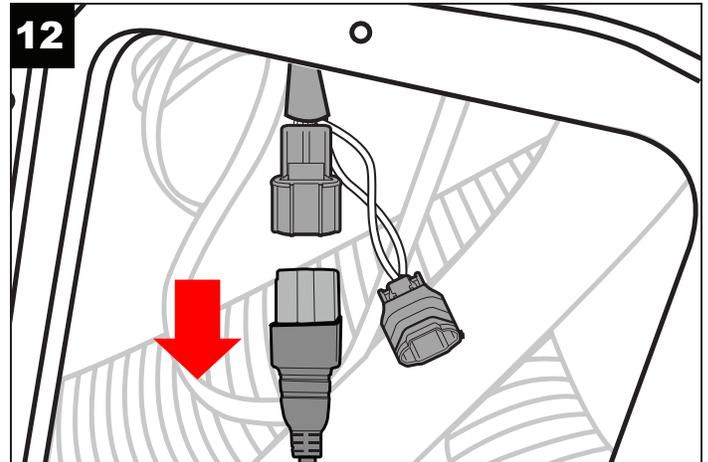
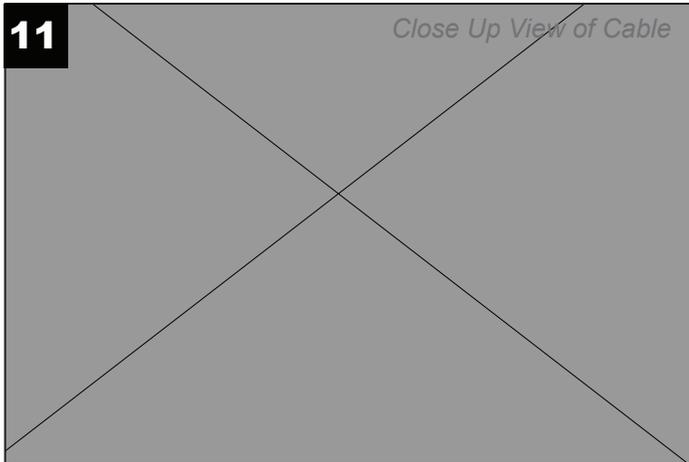


*Press the Read button to find all Fault codes, and then press clear to remove them*



## Step 6

Once the Error codes are cleared, disconnect Maptuner X from vehicle (Fig. 11-12) and re-insert the Diagnostic Connector's cable to its original position (Fig.13-14).



# YAMAHA MΔPTUNER

## Technical Support & Warranty

**Tech Support Hours:** M-F 9am-6pm EST/US

**Address:** 3671 North Dixie Highway Pompano Beach, FL 33064

**Phone:** 954-247-0705

**Email:** tech\_support@rivamotorsports.com

### RIVA Maptuner X Limited Service Warranty Policy

1 year limited warranty on RIVA Maptuner X equipment. For 1 year from the date of original retail purchase, this RIVA product is warranted against defects in material or workmanship.

Defective product will receive free repair.

- This warranty applies only to the original purchaser from an authorized RIVA dealer and may not be transferred. Authorized dealers are identified online at [www.rivaracing.com](http://www.rivaracing.com).
- The warranty period for any RIVA Maptuner X product or part used for industrial, professional, or commercial purpose is one year.
- This warranty is void if the product has been used for rental purpose.
- This warranty does not cover damage resulting from modification, alteration, or unauthorized repair.
- This warranty only covers defects arising under normal usage and does not cover any malfunction, failure or defect resulting from misuse, abuse (including overloading of the product beyond capacity and immersion in water or other liquid), accidents, neglect, or lack of proper installation, and improper maintenance or storage.
- This warranty does not cover normal deterioration of the exterior finish, including but not limited to scratches, dents, paint chips, broken screen, or to any corrosion or discoloring by heat, abrasive and chemical cleaners.

### How to Obtain Service

For warranty service, please contact RIVA Racing Customer Support toll-free at 954-247-0705 or by email at [tech\\_support@rivamotorsports.com](mailto:tech_support@rivamotorsports.com). When requesting warranty service, you must present the original dated sales receipt.

### Additional Limitations

RIVA Racing agrees to repair or at RIVA's option, replace any defective unit without charge, if product is returned to RIVA Racing freight prepaid within the warranty period. Any equipment returned which, in RIVA's opinion, has been subjected to misuse, abuse, overheating or accident shall not be covered by this warranty.

RIVA Racing shall have no liability for special, incidental or consequential damages or injury to persons or property from any cause arising from the sale, installation or use of this product.

No other warranty, express or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose, applies. Various states do not allow for the limitation of incidental or consequential damages and therefore the above exclusion or limitation may not apply to you.

Warranty does not include the expenses related to freight or transportation of parts or compensation for any inconvenience or loss of use while being repaired. A copy of the original invoice and a Return Authorization Number (RA#) must accompany all warranty claims. Warranted replacement parts will be returned freight collect.