

# Technical BULLETIN

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## Certain 2018 WR250F Models

ECU reprogramming to correct errors in diagnostic mode using YDT

### i

#### INTRODUCTION

**Problem:** On certain 2018 model WR250F motorcycles, YDT (Yamaha Diagnostic Tool) may display incorrect information from within the diagnostic mode function due to an error in the ECU's diagnostic programming.



**Cause:** Programming errors within the ECU on the motorcycle prevent YDT from retrieving certain information correctly from within the diagnostic mode.

**Remedy:** A modified ECU diagnostic programming file has been made available to reflash and correct the ECU's logic using YDT version 3.1 or later. To reflash the ECU on applicable models, see the *Service Procedures* section.



**NOTICE:** This modification does not alter the emissions compliance of this product.



#### DEALER ACTION SUMMARY

**Unsold/** Modify all units in the applicable range after checking the Unit Status on YDS to be sure the  
**Sold** modification hasn't already been performed. Follow the procedures listed in this bulletin to  
**Units:** remedy the situation.

#### Parts

**Required:** No.

**Warranty:** Submit a Service-per-Bulletin (90 Code) Warranty Request for reimbursement (refer to the *Warranty Information* section).



#### AFFECTED RANGE

Certain 2018 WR250F models equipped with stock ECU

| Model  | Prefix No. | From   | To     | Model Code |
|--------|------------|--------|--------|------------|
| WR250F | CG353      | 000004 | 000241 | 2GBF       |

**TIP:** Units with an accessory GYTR Competition Kit (2GB-E9500-V0-00) or aftermarket ECU installed do NOT need to be reflashed.



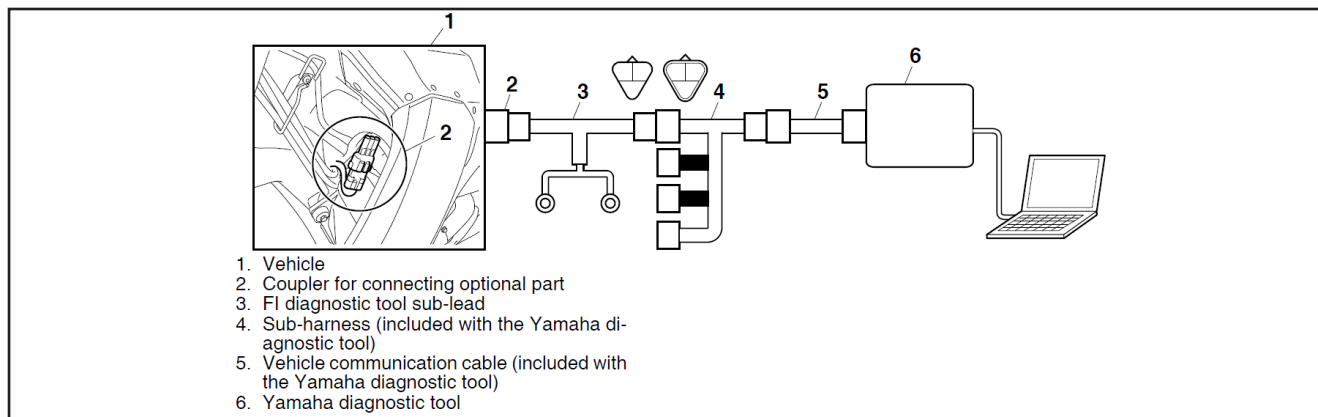
## SERVICE PROCEDURES

In order to successfully reprogram the ECU on this model, the following items are required:

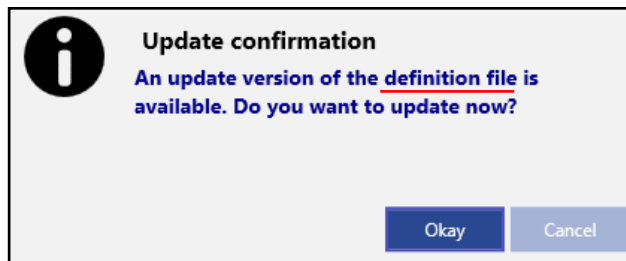
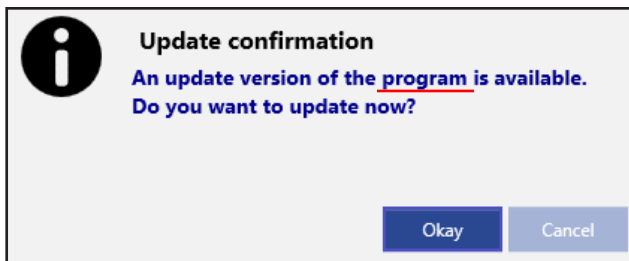
A PC with Yamaha Diagnostic Tool Version 3.1.x or later installed including all of the available standard, definition, and reprogramming files up-to-date. Refer Technical Bulletin MSA2016-002 for installation information.

FI diagnostic tool sub-lead (YU-03212). This is the sub-lead which was originally shipped with the FI diagnostic tool, not the YDT lead. Easily identified by the inline switch and battery leads which are integrated into the lead.

Fully charged battery on the unit. It is good practice to connect a battery charger to the motorcycle while reprogramming the ECU to ensure the battery does not discharge during the reprogramming process.



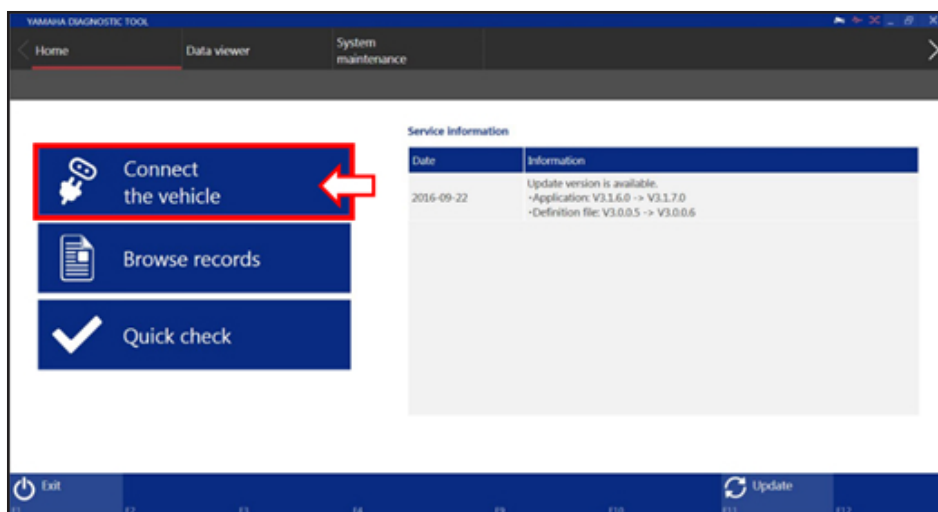
1. Make sure the Yamaha Diagnostic Tool (YDT) Version 3.1 or later is up to date, including importing any and all new Standard, Definition, and ECU reprogramming files available for the tool. When the software is launched, YDT will automatically check for these updates if the computer is connected to the internet. If updates are available, install them by following the prompts within the program.



**TIP:** If firmware for the Adapter Interface (AI) is available, you must follow the on-screen prompts to import it. Then, connect the AI to the computer and update it from the “System Maintenance” tab at the top of the home screen. Next, choose “Adapter Interface Reprogram.” Consult the YDT Operation Manual for additional details, which is also located within the System Maintenance menu.

2. Before beginning the process, verify the computer's screensaver is disabled, close all other programs running on the PC, and **verify the battery of the unit being modified is completely charged.**

Establish a full connection to the vehicle by using the "Connect the vehicle" function.



If the unit has previously been connected to YDT v.3.x, the unit's information will already be present. If this is the first time YDT has been connected to the vehicle, you will be prompted to enter the unit's VIN and customer information in order to proceed.

The screenshot shows the 'Vehicle registration' screen in the Yamaha Diagnostic Tool. It contains several input fields for customer and vehicle information. The 'Model type code' field, which contains the value '2GBF', is highlighted with a red box. The 'Save' button at the bottom right is also highlighted with a red box and a red arrow pointing to it. Other fields include 'Dealer' (John Doe Powersports), 'Frame number, Vehicle Identification Number' (CG353-00000X), 'Staff name' (John Smith), 'License plate number' (Temp), 'Date sold' (10/4/2016), 'Category' (MC), 'Model name' (WR250F), 'Model year' (2018), and 'Engine number'.

It is CRITICAL to enter the proper VIN or PID and verify the Model Code is correct. If you are unsure of the model code, generally it is located under the seat on a small label.

On the “Add maintenance record” screen, select Recall/Service campaign from the drop-down menu. Add the technician and mileage, then click “Save” in the bottom right corner of the screen. Next, choose “Select function” option at the top of the screen, which will bring you to the function menu.

YAMAHA DIAGNOSTIC TOOL

Vehicle registration **Add maintenance record** Select function

Vehicle information

|                                          |                   |                          |                         |
|------------------------------------------|-------------------|--------------------------|-------------------------|
| Dealer                                   | YMUS Tech Service | Type of Service Needed * | Recall/Service campaign |
| Staff name                               | John Smith        | Date                     | 11/28/2017              |
| Date sold                                | 10/04/2016        | Technician               | John Smith              |
| Frame number, Vehicle Identification No. | CG353-00000X      | Mileage *                | 2                       |
| License plate number                     | Temp              |                          |                         |
| Category                                 | MC                |                          |                         |
| Model name                               | WR250F            |                          |                         |
| Model type code                          | 2GBF              |                          |                         |
| Model year                               | 2018              |                          |                         |
| Engine number                            |                   |                          |                         |

Save

3. From the function menu, click on “Reprogram ECU.”

YAMAHA DIAGNOSTIC TOOL

Home **Select function**

|                          |                       |                      |             |
|--------------------------|-----------------------|----------------------|-------------|
| Diagnosis of malfunction | Diagnosis of function | Dynamic inspection   | Active test |
| Maintenance records      | Recall Search         | Monitoring           | Logging     |
| CO volume adjustment     | <b>Reprogram ECU</b>  | Writing Frame number | View logs   |

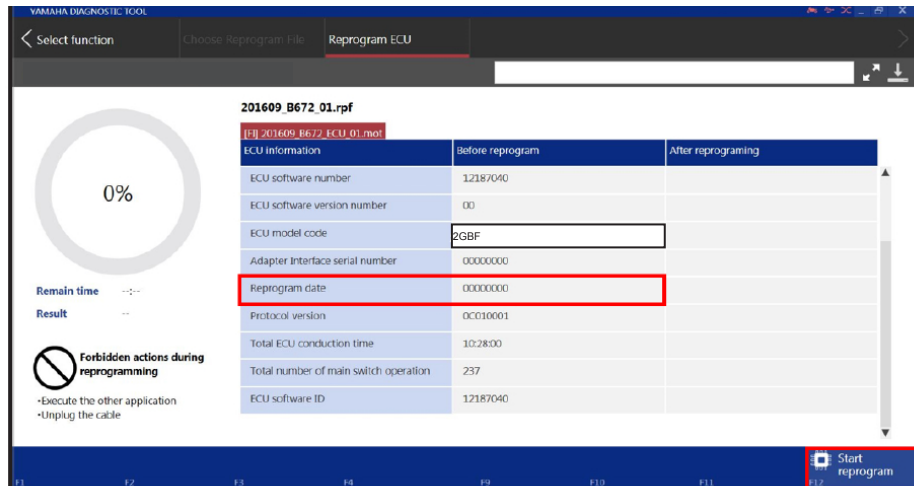
Message

Exit

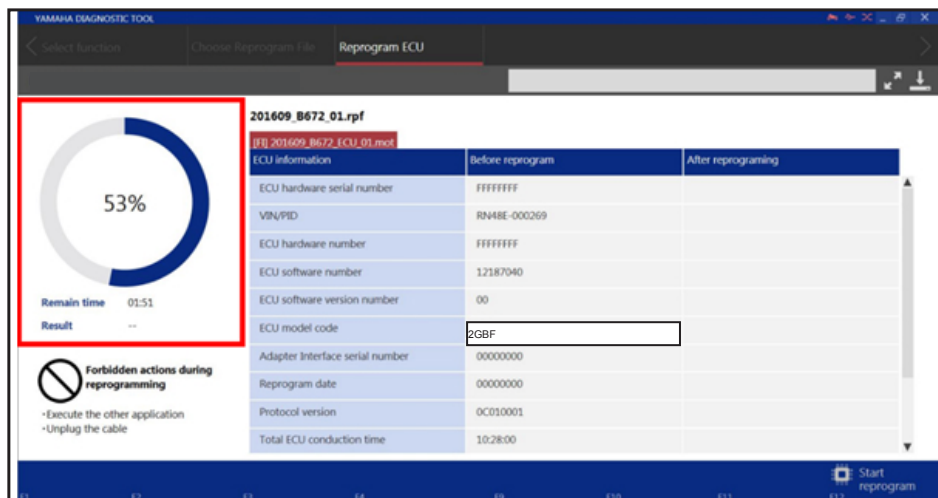
Once the Reprogramming function opens, be patient as the Diagnostic Tool reads the ECU’s information; reading the ECU may take several minutes. When the information has successfully been read, the “before program” chart will populate. To ensure the unit has not been previously reprogrammed, verify the “Reprogram date” is displayed as “00000000.” When you have verified this information, click “Start reprogram” from the bottom right side corner.

**NOTICE:**

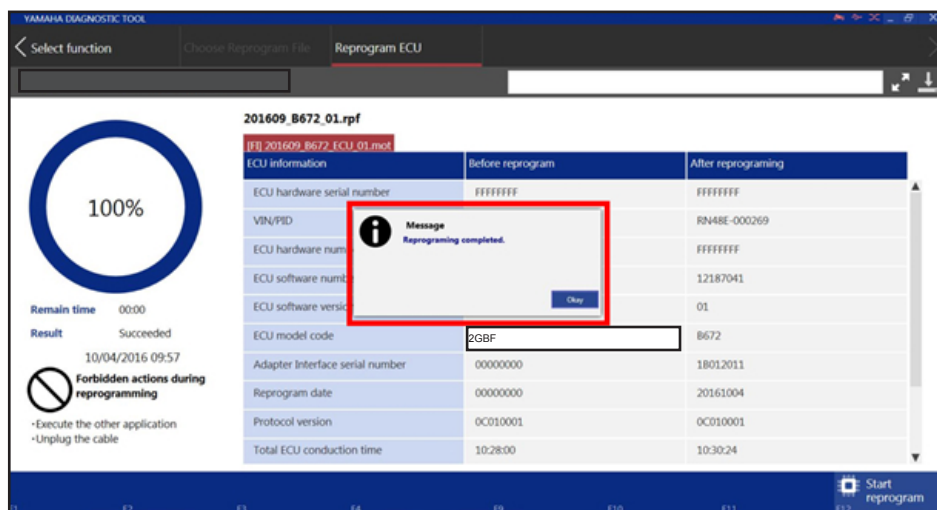
DO NOT allow the PC's screen saver to initiate during this reprogramming process. Avoid using other programs, do not disconnect any of the cables, and do not turn the ignition switch off during the ECU reprogramming process. Failure to follow any of these instructions may result in irreversible damage to the ECU.



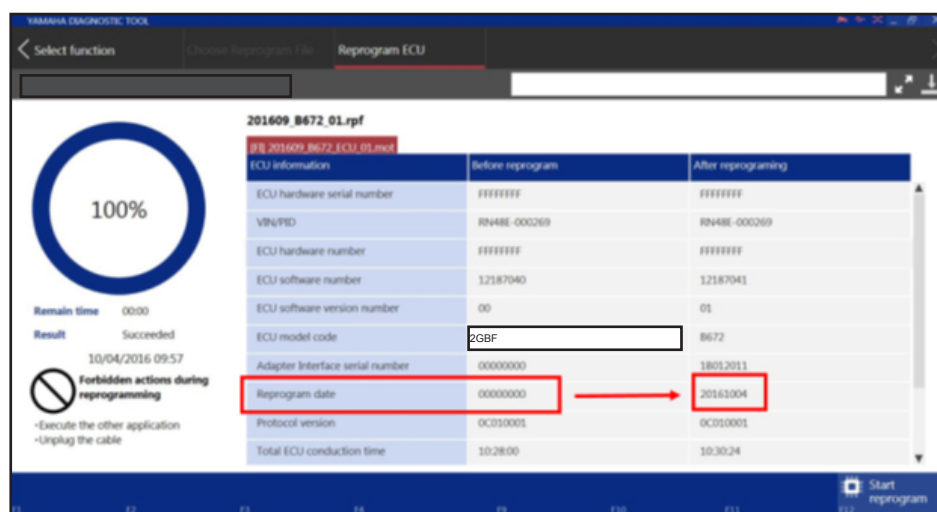
During the ECU reprogramming process, the progress will be displayed on the left side of the screen (see screen below). Even if the reprogramming appears to have stalled or become frozen, do not exit the program or disconnect the unit. Depending on the computer's hardware, reprogramming may take in excess of 5 minutes.



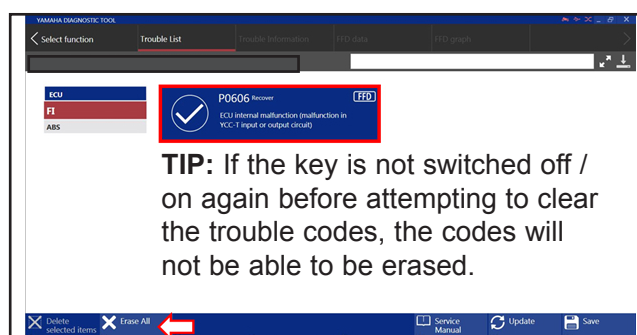
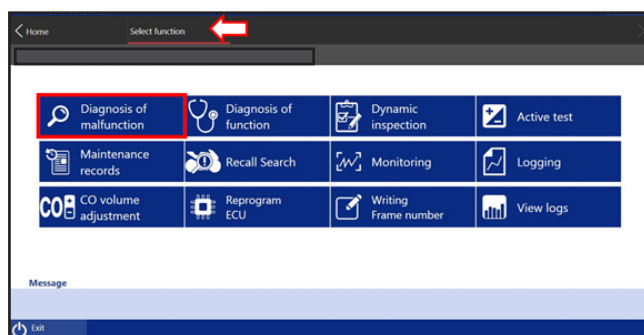
When the progress indicator reaches 100%, wait until YDT displays the “Reprogramming completed” message as shown below before proceeding to the next step.

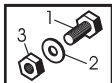


Once the “reprogramming completed” message displays, confirm the Reprogram date changed from “00...” to the actual date (formatted YYYYMMDD) on the before/after reprogramming chart as shown below.



- Turn the key off, then on again. Re-establish the connection to the vehicle using YDT. From the Select Function menu, enter “Diagnosis of malfunction,” and erase any fault/event codes that are present.





## PARTS INFORMATION

No parts are required to perform this modification.

The ECU's part number will supersede at a later date. Once this supersession takes place, the new part will be supplied with this updated software pre-installed.



## WARRANTY INFORMATION

Service of all affected units is authorized regardless of warranty status.

After completion, Select Campaign Number **090XS** from the Campaign Number pull-down menu in the Yamaha Dealer System (YDS) when entering your claim. The labor allowance for this repair is **0.3 hour**.

This Service-per-Bulletin 90 Code (**090XS**) will only be **valid for 2 years** from date of issue of this Technical Bulletin and will expire 1/17/2020.