

Technical BULLETIN

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SAFETY RECALL

This modification has top priority. This bulletin must be performed immediately to ensure customer safety.

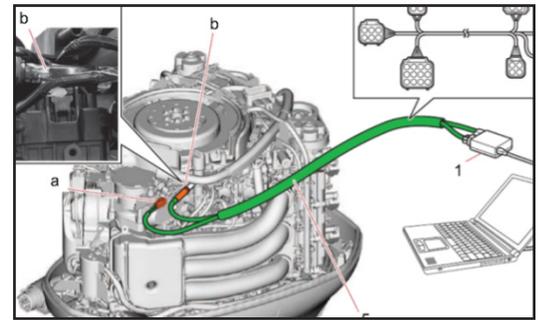
NOTE: Bulletins that announce a recall will have an "R" at the end of the bulletin number.

CERTAIN 2021 AND 2022 PROGRAM YEAR VF200LB, VF200XB, VF225LB, VF250LB, AND VF250XB OUTBOARD MOTORS FACTORY MODIFICATION CAMPAIGN – Ignition Control Software Update

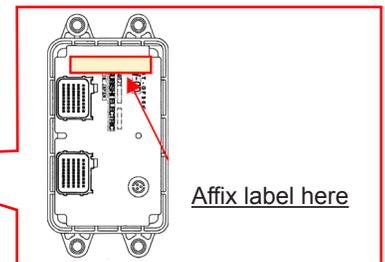
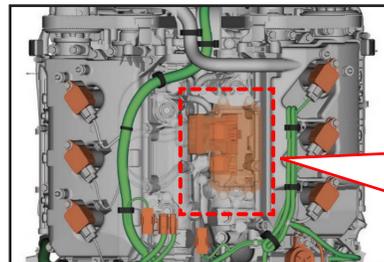
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INTRODUCTION

Yamaha Motor Corporation, U.S.A. has decided that a defect that relates to safety may exist in certain 2021 and 2022 program year VF200LB, VF200XB, VF225LB, VF250LB, and VF250XB outboard motors. In affected motors, the ignition coils may be energized while the main switch is turned on or, on certain models, may even be energized by power trim and tilt switch operation with the main switch off. This is due to faulty engine control unit (ECU) software programming. If this happens, it could cause an ignition spark that might ignite unburned fuel inside the combustion chamber, possibly damaging the intake and manifold, while also increasing the risk of fire.



To correct this defect, Yamaha is initiating a Factory Modification Campaign. Affected motors must have the ECM software updated and a new program version identification sticker applied.



Yamaha is notifying all registered owners of affected outboard motors by mail. A copy of this letter is included at the end of this bulletin. The customer should make an appointment with an authorized Yamaha dealer to bring in the outboard motor.

If your dealership was invoiced for one or more affected units, a printed computer report listing all affected outboard motors invoiced to your dealership is included with a mailed copy of this bulletin. Use the list to help ensure all affected units are modified. All sold outboard motors that have been registered with Yamaha will show the customer's name and address.

Your dealership must notify the owner of any affected outboard motors that were actually sold but listed as "unsold" in the report. You must modify all affected outboard motors in your inventory as well as all customer-owned motors brought to you for this service. If you purchase any affected outboard motors from another dealer, check to see if the procedures in this bulletin have already been performed before you sell the unit.

It is a violation of Yamaha policy for your dealership to deliver any affected outboard motors to customers until the procedures in this bulletin are performed.

When the modification on each unit is performed, follow the *Warranty Information* section of this bulletin to receive reimbursement. Be sure to use the Factory Modification Campaign procedures in Chapter 7 of the *Outboard Warranty and Y.E.S. Handbook* (P/N: LIT-11760-00-22).

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



DEALER ACTION SUMMARY

- Unsold & Sold Units:** Use YMBS Unit Status to check to be sure the unit is affected and that it is not already modified. Also, see the *Identification Procedure* section of this bulletin to identify a modified unit as indicated by a white paint mark on the ignition coil cover. Update the ECM software on all affected, unmodified outboard motors following the *Service Procedure* in this bulletin.
- Parts:** Yes. Order a new identification label for each affected unit being modified. See the *Parts Information* section on page 18 for details.
- Warranty:** Factory Modification Campaign. See the *Warranty Information* section of this bulletin. This modification applies to all affected units regardless of ownership or warranty status.
- Notify Customers:** Yes. As with any recall, you must immediately contact any customer whose outboard motor shows as unregistered on the enclosed report. Yamaha has sent letters to customers whose outboard motors were registered with Yamaha as of 8/9/2022.



AFFECTED RANGE

The following units are in the affected range.

Program Year	Model Name	Primary ID		
		Prefix	From	To
2021 and 2022	VF200LB	6KYL	1000571	1001279
	VF200XB	6LGX	1000552	1001529
	VF225LB	6KXL	1000304	1000450
	VF250LB	6KWL	1001468	1002989
	VF250XB	6LFX	1001413	1003460

IMPORTANT: Affected Primary IDs may not be consecutive, and some units may already be modified. Always check YMBS Unit Status before starting any repair and verify the need to perform the modification using the *Identification Procedure* on page 18 of this bulletin. Do not attempt to perform this modification on any units that are not affected.



SERVICE PROCEDURE

Necessary Tools

Tool Name	Remarks
Torque wrench	Measurement range: Capable of 8 Nm (0.8 kgf-m, 5.9 lb-ft)
Ratchet wrench	
10 mm socket	
Computer on which YDIS is installed	Internet connectivity. Version 2.49 required.
YDIS kit	
White paint pen	

DISCONNECT IGNITION COIL COUPLERS

NOTICE:

Before starting the procedure, turn off the battery switch(es) or disconnect the battery(ies), and then disconnect the ignition coil couplers (6 pieces). Do not operate the power trim and tilt switch.

1. Turn off the battery switch(es) or disconnect the battery(ies).
2. Remove the top cowling, flywheel cover, and ignition coil cover.
3. Disconnect the ignition coil couplers (6 pieces).



REPROGRAMMING WORKFLOW (ONLINE OR OFFLINE)

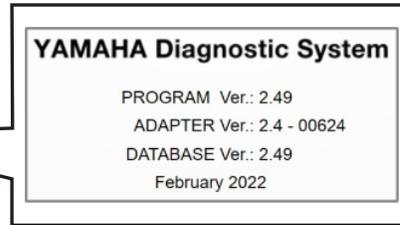
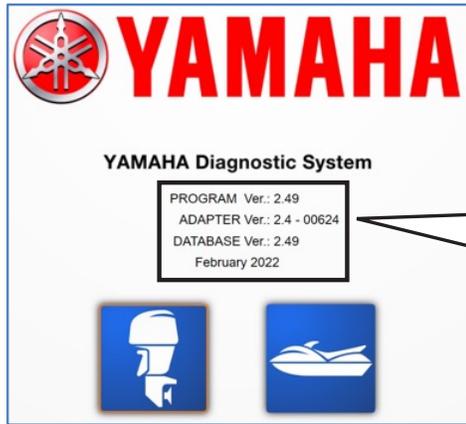
Refer to the workflow chart on the next page for online and offline methods for reprogramming.

TIP: Download the software from YMAN via the internet, and then execute reprogramming. The online method allows you to reprogram the ECM by connecting your computer to the internet. This lets you download the software, reprogram, and send a report all at once. The offline method allows you to download, reprogram, and report in separate procedures. An internet connection is required for downloading and reporting. An internet connection is not required for reprogramming procedures for which you must connect to an outboard motor. If connecting to the internet is difficult where the outboard motor is located, execute the work choosing the offline method.

TIP: The procedure is created utilizing YDIS Version 2.49 and utilizes screen shots depicting other types of engines for example only.

NOTICE:

Confirm on YDIS that the YDIS version is compatible with affected units.



Online method	Offline method
↓	↓
	1. Download software (Download in advance with an internet connection – unit's PID required)
	↓
1. Connect YDIS to engine	2. Connect YDIS to engine
↓	↓
2. Update	3. Programming
↓	↓
3. Report (transmitted automatically)	
↓	↓
4. Confirm the version	4. Confirm the version
↓	↓
5. Disconnect YDIS from engine	5. Disconnect YDIS from engine
↓	↓
	6. Report (Send a completion report after work is finished in an environment that has internet connectivity)
	↓
6. Finish (apply for warranty)	7. Finish (apply for warranty)

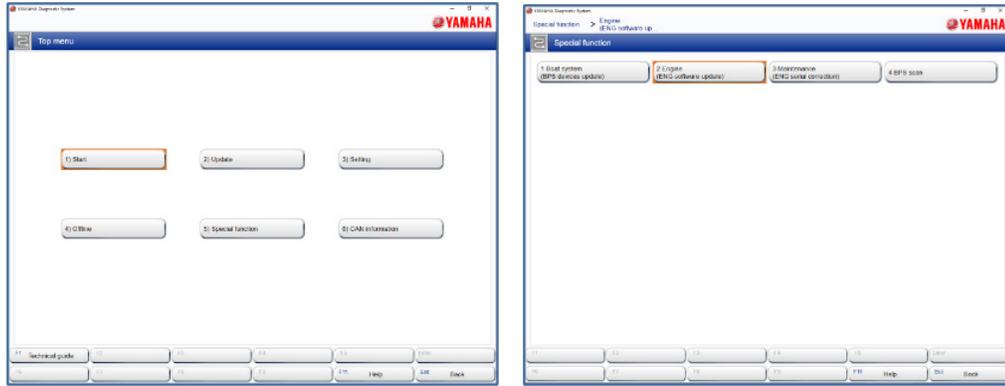
DOWNLOAD SOFTWARE (if using the offline method)

TIP: Only needed when working offline, but an internet connection is needed for this procedure. When working online, go to CONNECTING YDIS TO THE ENGINE on page 8.

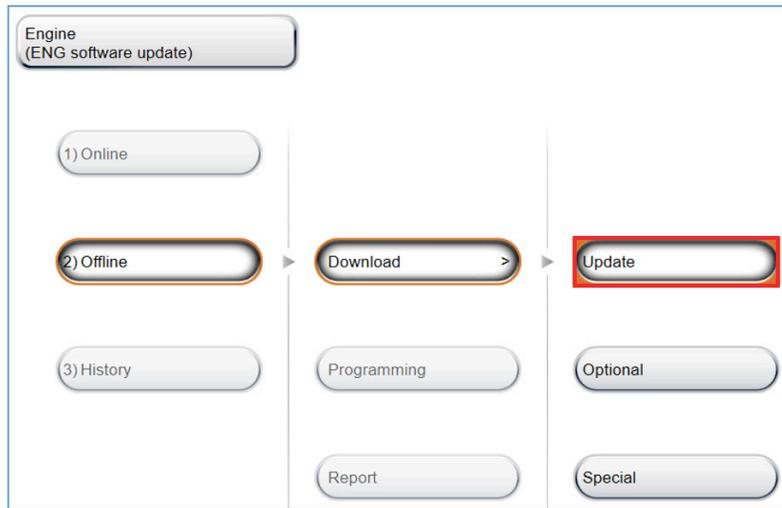
4. Start YDIS and select the outboard motor button.



5. Select “5) Special function” > “2 Engine (ENG software update).”



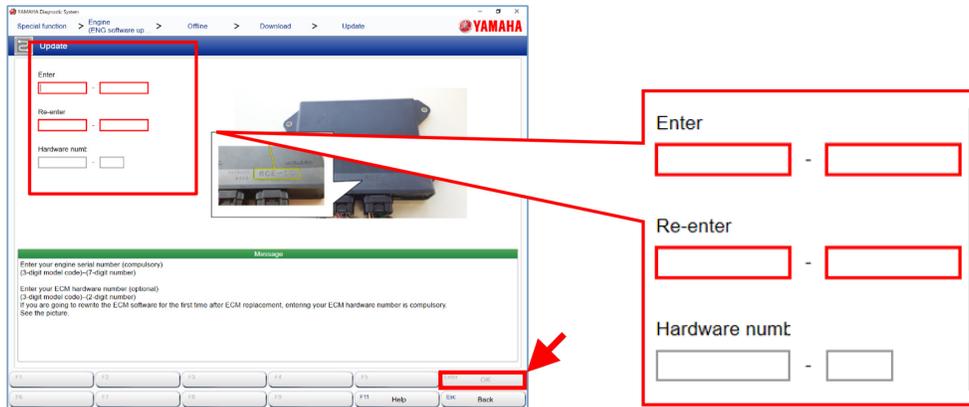
6. Select “2) Offline” > “Download” > “Update.”



TIP: If there is no internet connection, an “Internet communication error” message is displayed. Be sure the computer is connected to the internet.

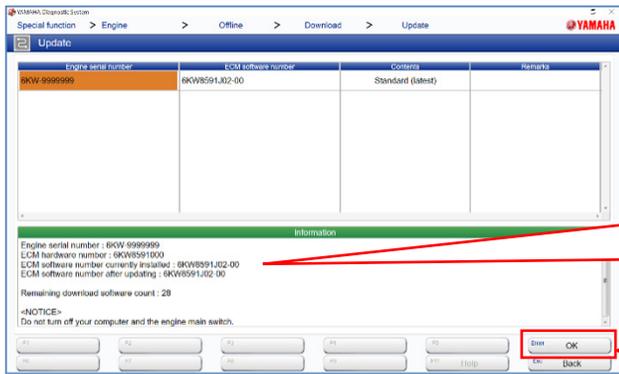
7. Enter the engine serial number two times and then select “OK.”

TIP: Engine serial number: Enter the three-digit model code and seven-digit number.



NOTICE: The downloaded software is dependent on the ECM hardware number. If you download different software, an error will occur during reprogramming.

Check the engine serial number and ECM hardware number in the displayed list. Confirm the ECM software number currently installed and the ECM software number after updating as shown in the table below. After confirming, select “OK.”

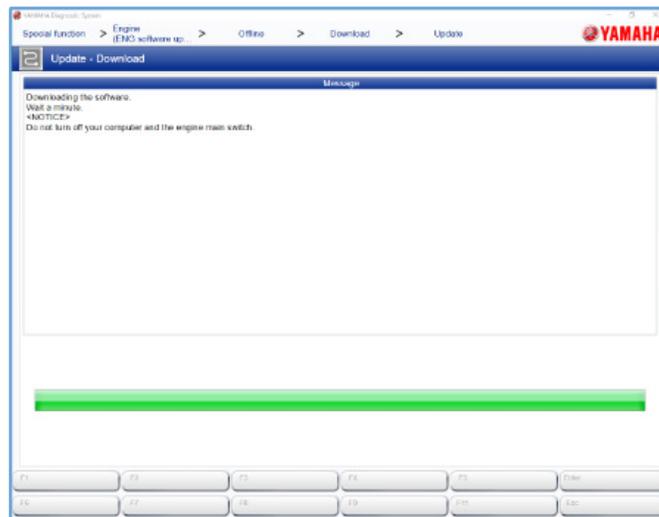


Engine serial number: 6**-10*****
 ECM hardware number: 6KW8591000 or 6FJ8591000
 ECM software number currently installed: See Note
 ECM software number after updating: See Note

NOTE: The combination by model of ECM software number currently installed and ECM software number after updating is as follows:

Model Name	Serial Code	ECM Software Number Currently Installed	ECM Software Number after Updating
VF200LB	6KY	6KY-8591J-01-00	6KY-8591J-02-00
VF200XB	6LG	6LG-8591J-01-00	6LG-8591J-02-00
VF225LB	6KX	6KX-8591J-01-00	6KX-8591J-02-00
VF250LB	6KW	6KW-8591J-01-00	6KW-8591J-02-00
VF250XB	6LF	6LF-8591J-01-00	6LF-8591J-02-00

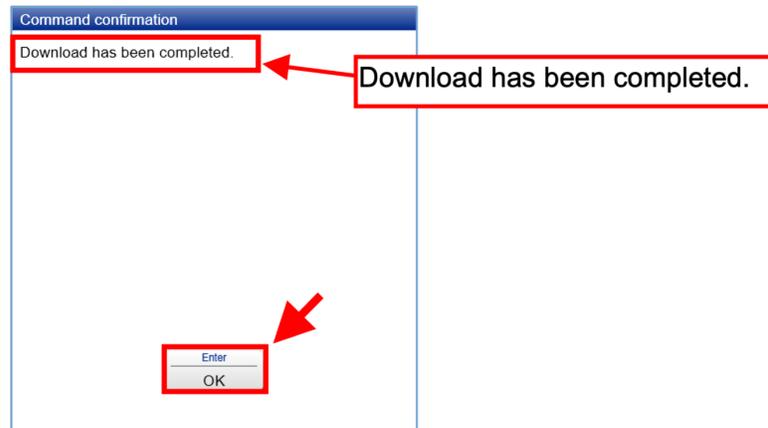
8. The download begins.



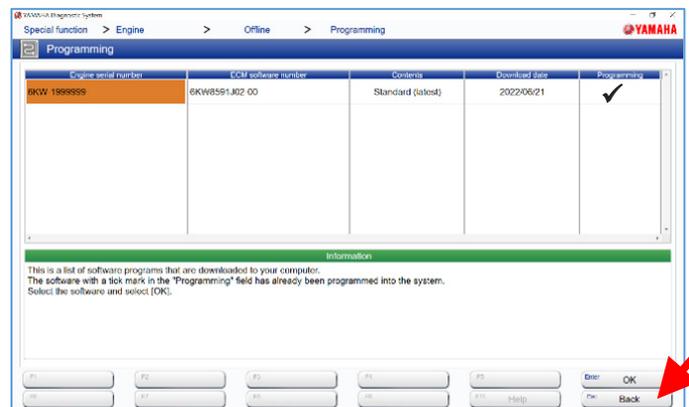
NOTICE:

While downloading, do not turn off the computer.

9. When “Download has been completed.” is displayed, select “OK.”



10. A list of the engine serial numbers and software numbers is displayed. Confirm and then select “Back.”

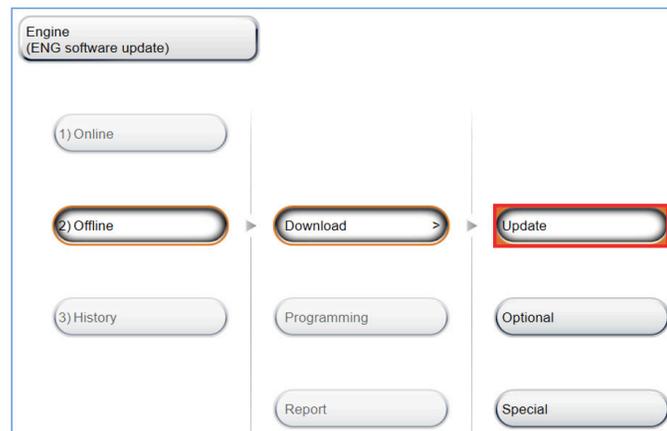


TIP: A icon in the right column indicates a unit that has finished reprogramming.

NOTICE:

If you enter the wrong engine serial number and download it, be sure to execute the report operation to unassign the serial number. If you do not unassign it, other operators will be unable to download software for this serial number's unit.

11. Return to menu.



TIP: Downloading is finished.

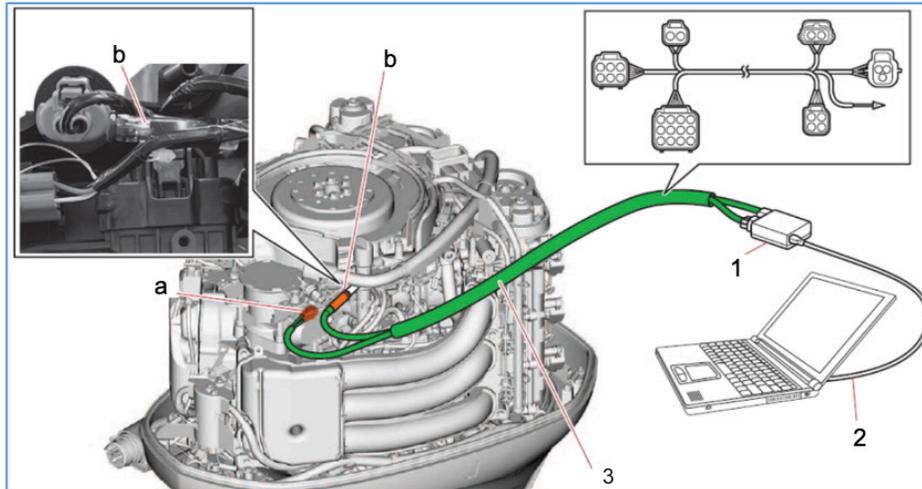
CONNECTING YDIS TO THE ENGINE

NOTICE:

Be sure the ignition coil couplers are disconnected (see page 3).

1. Connect a known good, fully charged battery or turn on the battery switch and connect the computer, USB cable, YDIS adapter, K-Line harness, and reprogramming harness to the outboard motor.

TIP: Store the protection cap of the reprogramming connector. Reprogramming work is possible with either the combination of K-Line harness and reprogramming harness or K and CAN harness.



1. Adapter interface
 2. USB cable
 3. K and CAN harness (P/N: 90890-06978-00)
 - a. YDIS coupler
 - b. Reprogramming connector
- K-Line harness (not shown, P/N: 6DE-8533A-10-99)
Reprogramming harness (not shown, P/N: 90890-06899-00)

SOFTWARE REPROGRAMMING

NOTICE:

Reprogramming requires about 10 minutes. Meanwhile ensure that the computer and engine are supplied with battery power. If battery power is cut off during the reprogramming process, updating cannot be done correctly, and the ECM may not function.

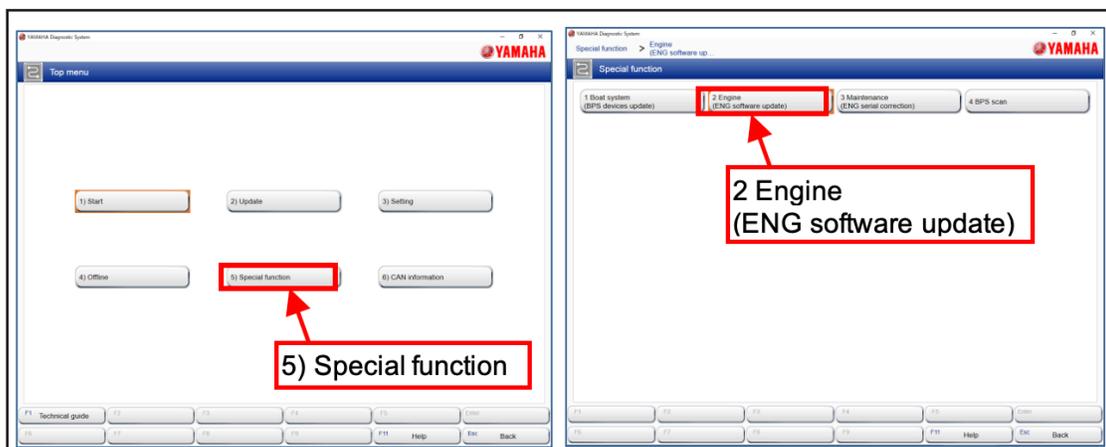
1. Connect the battery(ies) and turn on the battery switch(es).
2. Turn on the main switch.



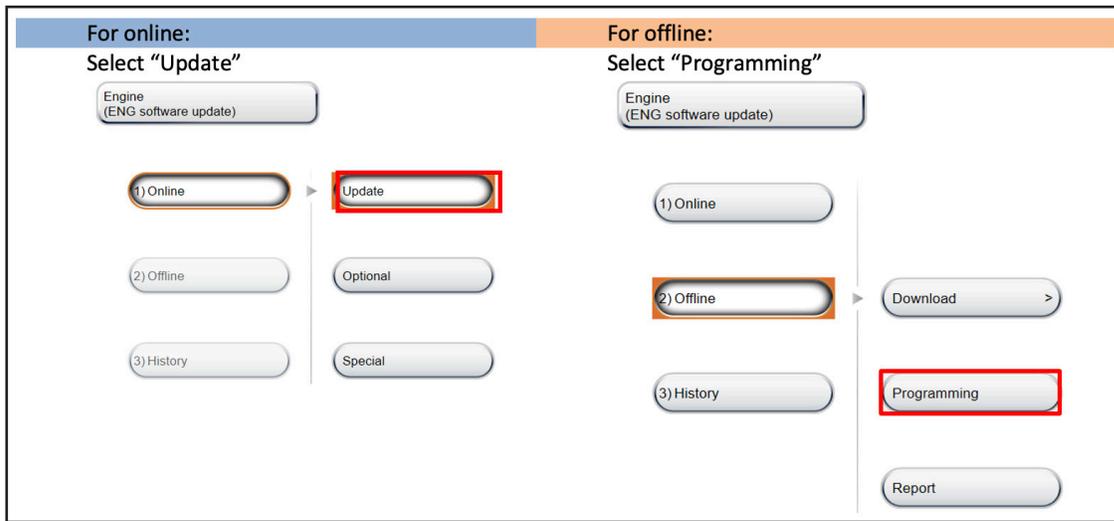
3. Start YDIS and select the outboard motor button.



4. Select "5) Special function" > "2 Engine (ENG software update)."



5. Select “1) Online” or “2) Offline.”
6. Select either “Update” (for online) or “Programming” (for offline).



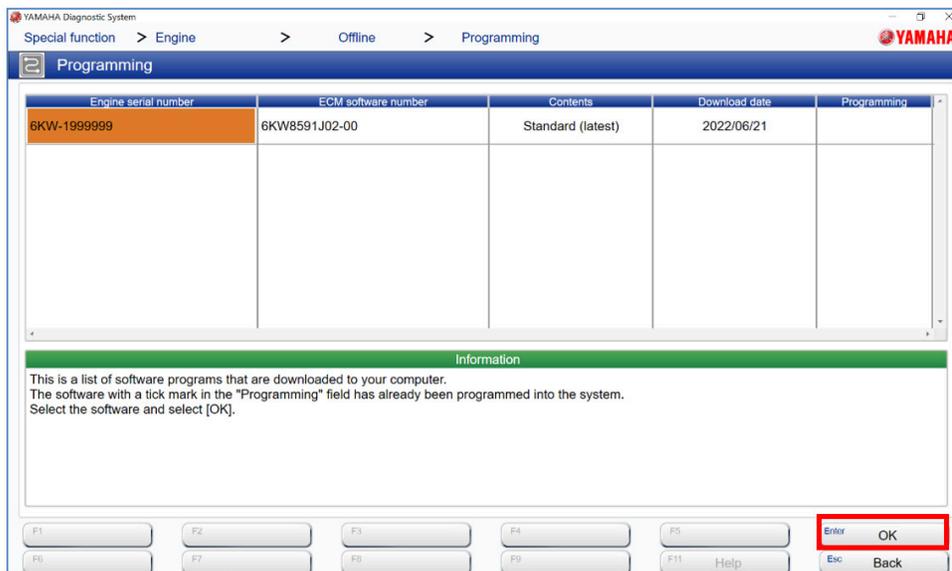
7. For online: skip this step and go to step 8.

For offline:

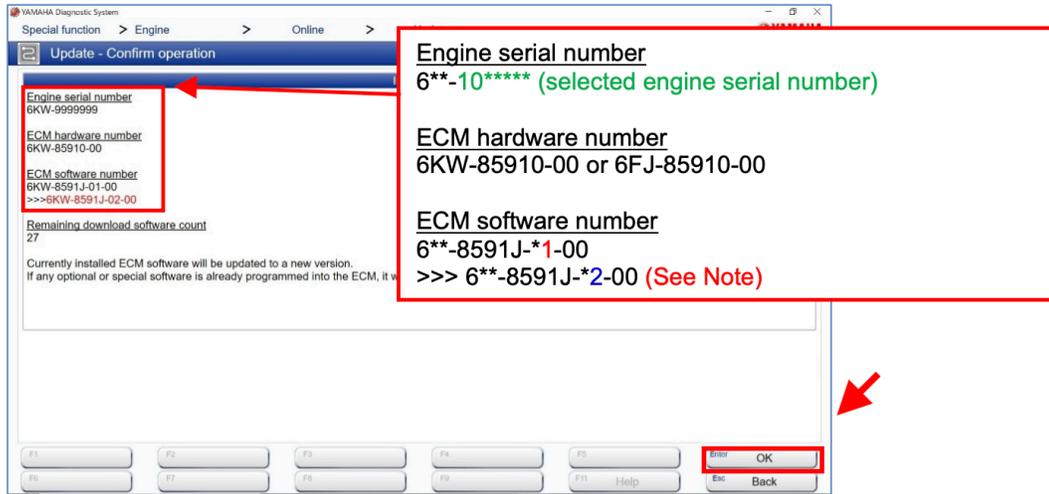
A list of the downloaded engine serial numbers and software is displayed.

Select the engine serial number for the outboard motor being reprogrammed, and then select “OK.”

TIP: An orange cell in the Engine serial number field indicates the selected unit. A icon in the Programming field is the indication that the unit has finished being reprogrammed.



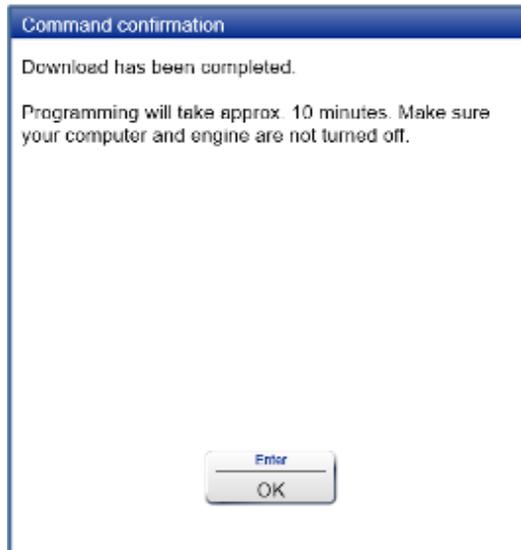
8. Confirm the engine serial number, ECM hardware number, and ECM software number in the information screen, and then select “OK.”



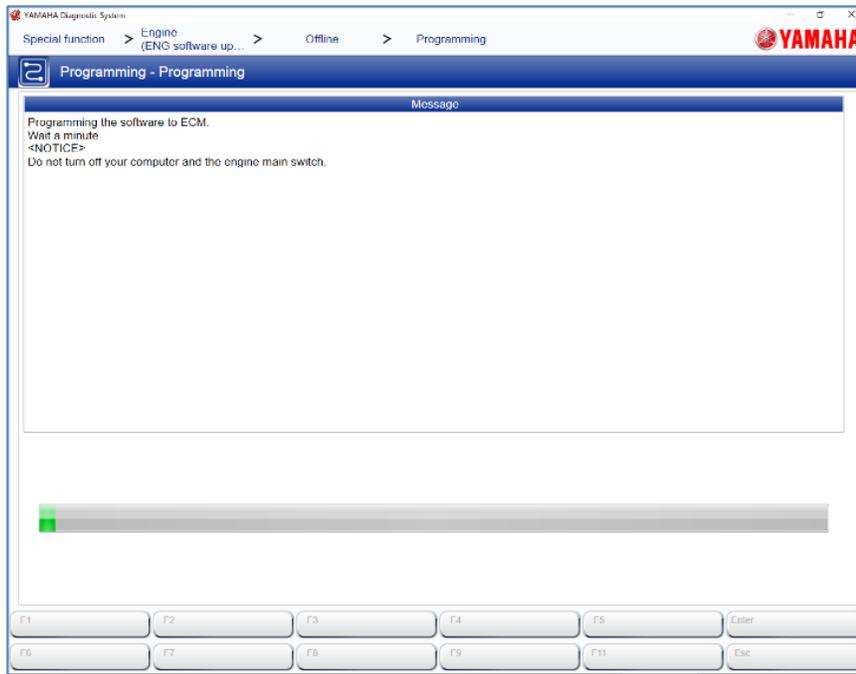
NOTE: The combination by model of ECM software number currently installed and ECM software number after updating is as follows:

Model Name	Serial Code	ECM Software Number Currently Installed	ECM Software Number after Updating
VF200LB	6KY	6KY-8591J-01-00	6KY-8591J-02-00
VF200XB	6LG	6LG-8591J-01-00	6LG-8591J-02-00
VF225LB	6KX	6KX-8591J-01-00	6KX-8591J-02-00
VF250LB	6KW	6KW-8591J-01-00	6KW-8591J-02-00
VF250XB	6LF	6LF-8591J-01-00	6LF-8591J-02-00

TIP: For online, when the download is finished, a command confirmation message is displayed. Select “OK.” For offline, a command confirmation message is not displayed.



9. Programming starts.

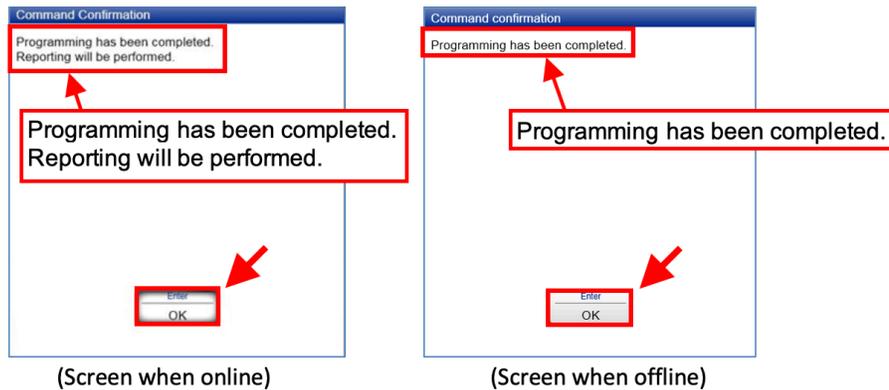


TIP: Programming requires about 10 minutes. A bar indicates the progress.

NOTICE:

While reprogramming, do not turn off the computer and/or the engine's main switch. Also, do not disconnect the YDIS harness. Updating cannot be done correctly, and the ECM may not function.

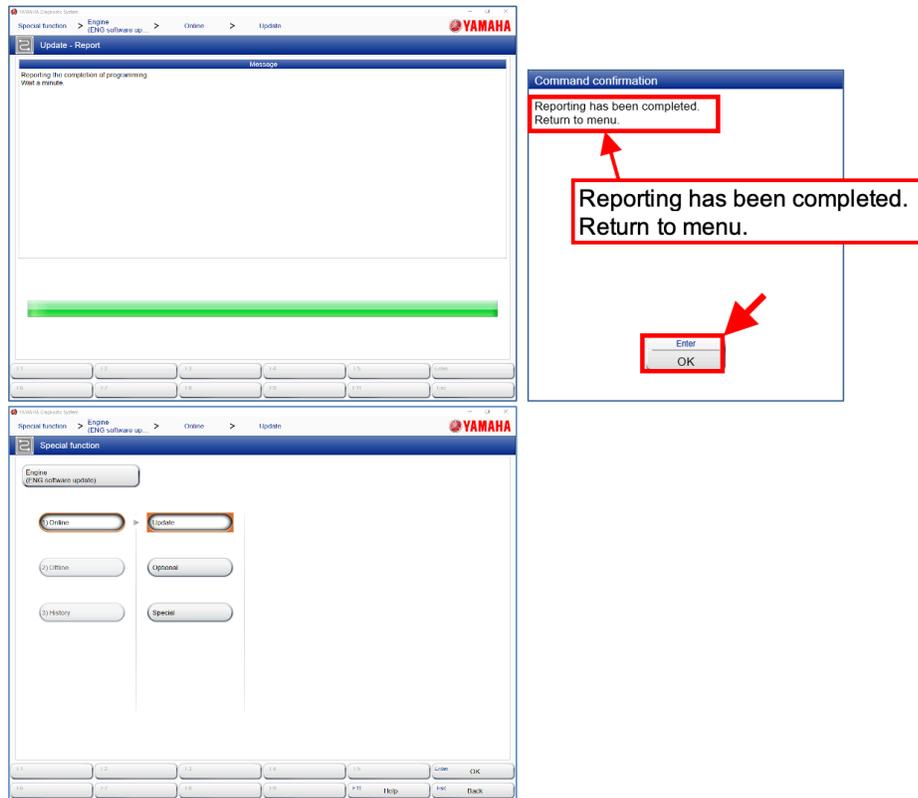
10. When "Programming has been completed." is displayed, select "OK."



TIP: When working offline, return to the menu screen. The reprogramming is finished, but a completion report needs to be sent separately.

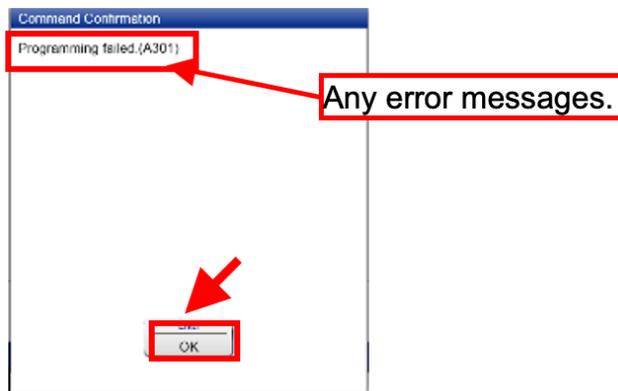
When working online, the report is uploaded to the server automatically.

When “Reporting has been completed. Return to menu.” appears, select “OK” to return to the menu screen.



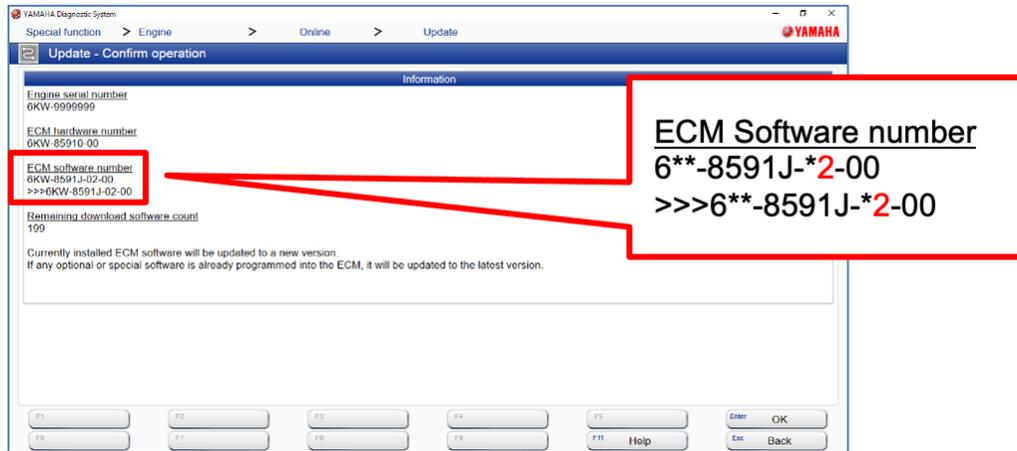
NOTICE:

If an error message is displayed while reprogramming, updating was not completed normally. Do the reprogramming again, starting with step 6. If the same message appears again, the ECM may be faulty. Contact Yamaha’s Dealer Support Call Center at (800) 353-5900.

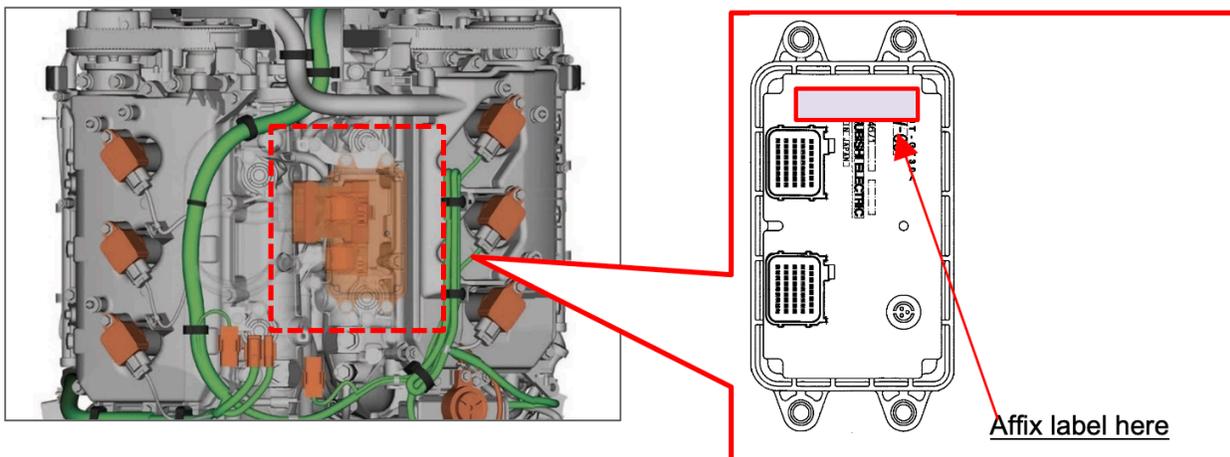


CONFIRMING SOFTWARE REPROGRAMMING IS FINISHED

1. Navigate to the following screen after reprogramming operation is finished.
“5) Special function” > “2 Engine (ENG software update)” > “Online” > “Update.”
2. Confirm that the upper and lower numbers are the same in the ECM software numbers.



3. After confirming, apply the sticker indicating the new version to the ECM.



DISCONNECTING YDIS FROM THE ENGINE

1. Turn off the main switch.
 2. Disconnect the YDIS adapter from the YDIS coupler and the reprogramming connector.
- TIP:** Securely install the protection cap to the YDIS coupler and the reprogramming connector.

3. Connect the ignition coil couplers (6 pieces).



4. Install the ignition coil cover and flywheel cover. Mark the ignition coil cover with a white paint pen as shown in the *Identification Procedure* on page 18.

Tightening torque: 8 Nm (0.8 kgf-m, 5.9 lb-ft)

5. Install the top cowling.

TIP: For online, this completes the work.

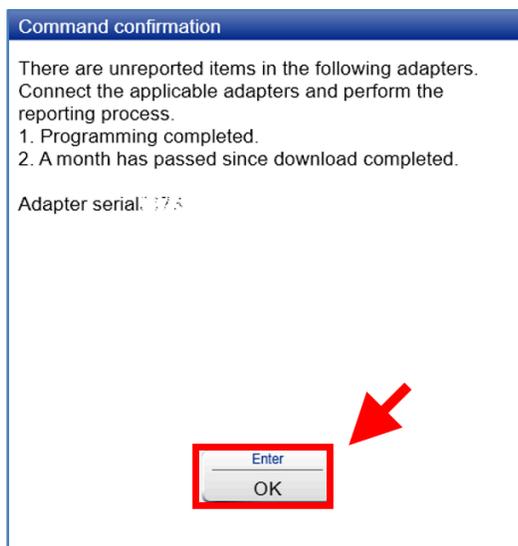
COMPLETION REPORT (OFFLINE)

TIP: When working online, the report is uploaded to the server automatically in steps 9-10 in the SOFTWARE REPROGRAMMING section, so this work is not necessary.

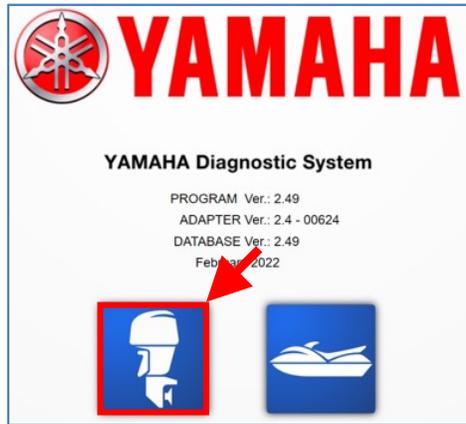
TIP: To do this work, connect the USB cable and the adapter interface used for the reprogramming work to the computer while connected to the internet.

1. Start YDIS.

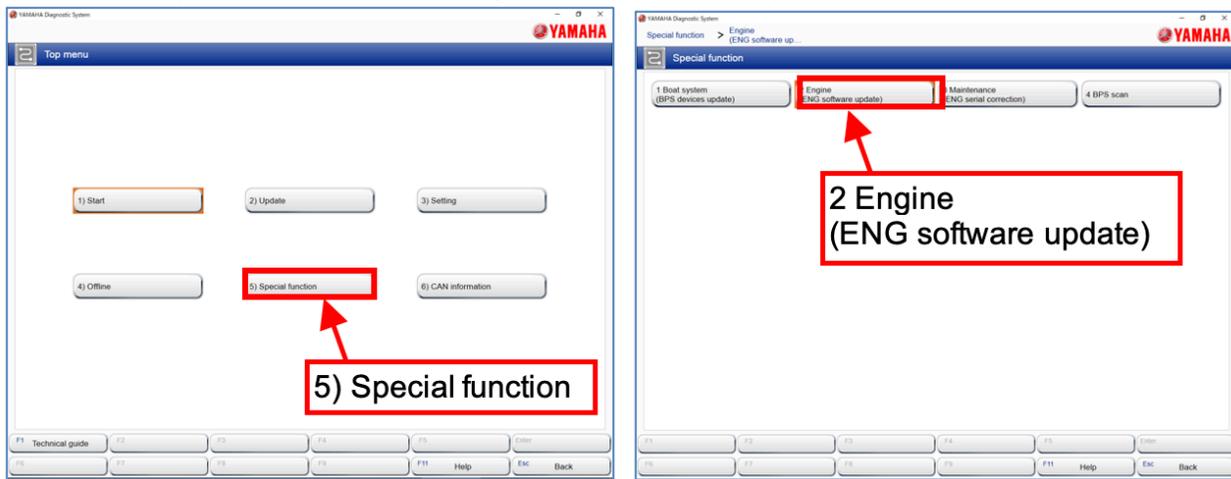
TIP: If there is a job to be reported, the following “Command confirmation” message is displayed. Select “OK.”



2. Select the outboard motor button.



3. Select "5) Special function" > "2 Engine (ENG software update)."

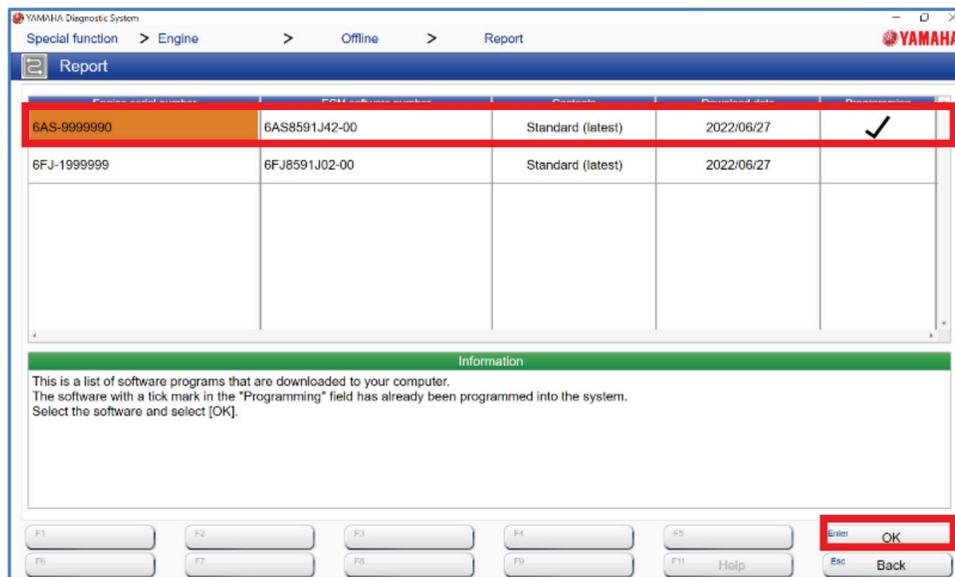


4. Select "2) Offline" > "Report."

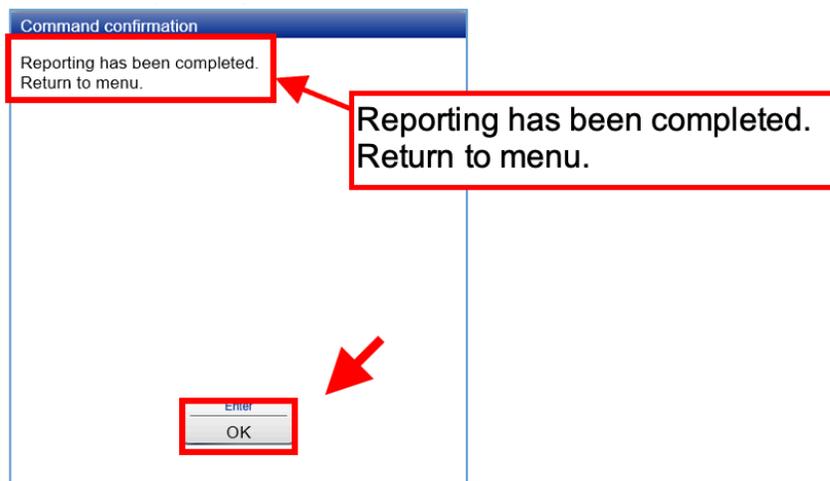


5. Select the item to report, and then select the “OK” button.

TIP: The report starts transmitting after you select the “OK” button.



6. When reporting has been completed, select “OK.”



7. Return to the main menu and exit YDIS.

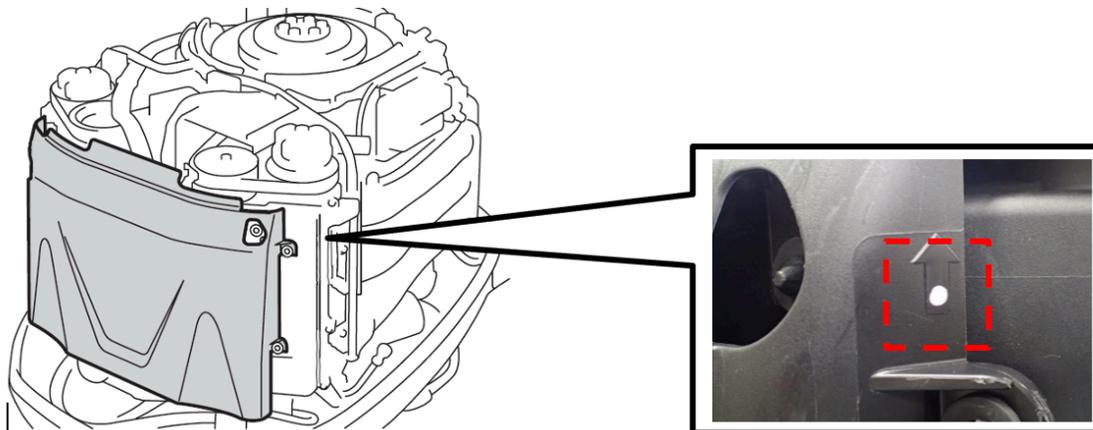
TIP: This completes the work.



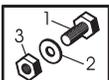
IDENTIFICATION PROCEDURE

After completing the procedure, make sure to properly record and submit the warranty claim for this campaign to ensure correct reimbursement and to update the vehicle's repair history in Yamaha's database.

After completing the reprogramming, put a white paint mark on the ignition coil cover as shown below.



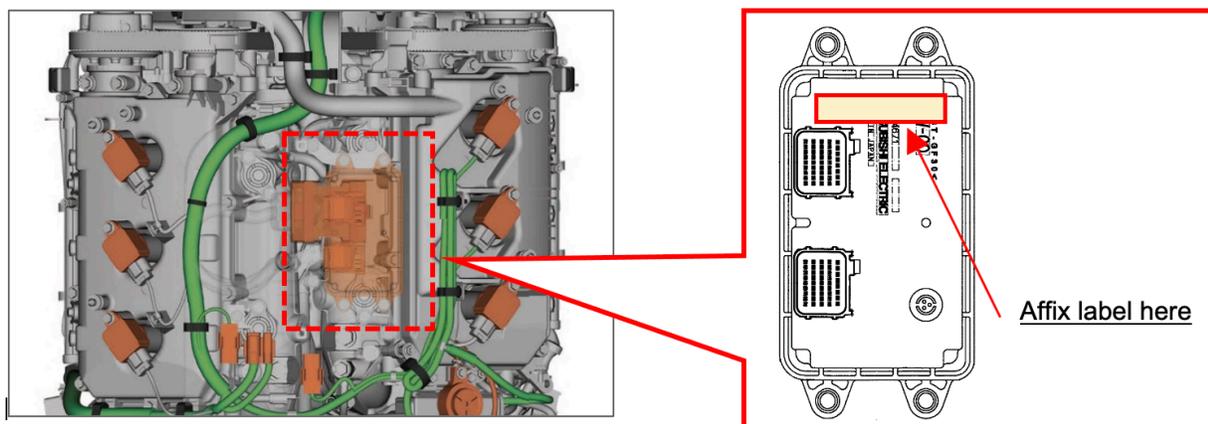
Before beginning work on an unfamiliar outboard motor, remove the top cowling. The presence of the white mark on the ignition coil cover as shown above is an identification that this corrective action has already been performed.



PARTS INFORMATION

PART NUMBER	DESCRIPTION	QTY	REMARKS
90891-40909-00	LABEL, ECM	1	Label number: 6**-*2 (White)

PROGRAM. 6-*2**





WARRANTY INFORMATION

The owner of each registered outboard motor will receive a letter announcing this campaign. The customer's letter includes the Primary Identification Number and Recall Number.

The modification is authorized for all affected outboard motors, both sold and unsold, regardless of ownership or warranty status. You do not need the customer's letter to perform the modification or to file for reimbursement. Submit a Recall Claim as described below using Campaign Number **990162**. The labor allowance is **1.0 hour**.

To submit your Recall Claim on YMBS, go to *Service > Warranty Claims / Authorizations > Claims / Authorization > New*. Then, from the menu, select *Recall / Service per Bulletin*.

The screenshot displays the YMBS software interface. On the left, a navigation menu is visible with the following sections:

- Warranty Claim
 - Warranty / Y.E.S. Claim
 - Recall / Service per Bulletin** (highlighted with a red box)
 - Parts and ACC Quality Assurance Claim
- Warranty Authorization
 - Warranty / Y.E.S. Authorization
 - Out of Warranty Authorization
 - Un-Registered / Un-Sold Unit Authorization
- Shipping Damage
 - [Shipping Damage Policies and Procedures](#)
 - Visible Damage Authorization - Pictures Required
 - Concealed Damage Claim \$349 and under
 - Concealed Damage Authorization \$350 and over - Pictures Required
 - Missing Parts Claim \$349 and under
 - Missing Parts Authorization \$350 and over

On the right, the 'Unit Recall/Service Campaign' form is shown. It includes the following fields and instructions:

- Campaign #:** A dropdown menu with a red box around it and an arrow pointing to it from a red box containing the text 'Enter Campaign Number 990162 Here'.
- *Primary ID:** Text input field.
- (OR) VIN/HIN:** Text input field.
- *Finish Date:** Date picker field.
- *Miles or Hours:** Text input field with a 'Hours' dropdown menu.
- STEP 1 : Get Repair Options >>** Button.
- Please Select Repair Option:** Dropdown menu.
- STEP 2 : Add >>** Button.

If you have any questions about proper procedures for Factory Modification Campaigns, see Chapter 7 in your *Outboard Warranty and Y.E.S. Handbook* (P/N: LIT-11760-00-22).



YAMAHA MOTOR CORPORATION, U.S.A. 1270 Chastain Road NW, Kennesaw, GA 30144-5586 (866) 894-1626

IMPORTANT SAFETY RECALL NOTICE

This notice applies to your outboard, PID xxxxxxxxxxxxxxxxxx Model: xxxxxx

August 10, 2022
990162

Dear Yamaha Owner:

Yamaha Motor Corporation, U.S.A. has decided that a defect that relates to safety may exist in certain 2021 and 2022 program year VF200LB, VF200XB, VF225LB, VF250LB, and VF250XB outboard motors. Our records indicate that you own the affected outboard motor shown above.

The reason for this recall:

In affected outboard motors, the ignition coils may be energized while the main switch is turned on or, on certain models, may even be energized by power trim and tilt switch operation with the main switch off. This is due to faulty engine control unit (ECU) software programming. If this happens, it could cause an ignition spark that might ignite unburned fuel inside the combustion chamber, possibly damaging the intake and manifold, while also increasing the risk of fire.

What is Yamaha and your dealer will do:

Your authorized Yamaha dealer will update the ECM software to the latest version and attach an updated program version sticker to the ECM for easy identification. The procedure takes approximately one hour to perform, but your dealer may need to keep your outboard motor longer depending upon their schedule. **There will be no charge to you for this procedure.**

What you should do now:

Please call your Yamaha dealer to make a service appointment to have this procedure performed. At that same time, you can find out how long they expect to keep your outboard motor for this service. Remember to take this letter with you when you take in your outboard motor.

You should not operate your affected outboard motor shown above until this modification is performed. Do not operate the power trim and tilt switch, even if the key switch is in the off position.

If you are unable to return to the Yamaha dealer who sold you the outboard motor, this service will be performed by any authorized Yamaha outboard motor dealer. For the name of a dealer near you, call 1-800-88-YAMAHA or visit the Yamaha website at www.yamahaoutboards.com.

If you have had this repair performed before you received this letter, you may be entitled to receive reimbursement for the cost of obtaining a pre-notification remedy of the problem associated with this repair. For more information, contact Yamaha Customer Relations at 1-866-894-1626.

Federal regulations require that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within 10 days.

If you need help:

If, after contacting your dealership, you have questions or concerns which the dealership is unable to answer, please write to:

Yamaha Motor Corporation, U.S.A.
Marine Customer Relations Department
1270 Chastain Road NW
Kennesaw, GA 30144

Or call: 1-866-894-1626

If, after contacting Yamaha Customer Relations, you are still not satisfied that we have done our best to remedy the situation without charge and within a reasonable time, you may submit a written complaint to the Commandant (CG-BSX-2), U.S. Coast Guard Headquarters, 2703 Martin Luther King, JR Ave SE, Stop 7501, Washington, DC 20593-7501 or call 1-202-372-1062, or email RBSInfo@uscg.mil. Refer to recall campaign number 22MF0350.

If you no longer own this Yamaha:

If you have sold your outboard motor to another party, please call us toll-free at 1-866-894-1626 with the name and address of the new owner, along with the Primary Identification (PID) number shown above your name on this letter.

We're sorry to cause you any inconvenience, but we are sincerely concerned about your safety and continued satisfaction with our products. Thank you for giving your attention to this important matter.

Sincerely,
Marine Service
Yamaha Motor Corporation, U.S.A.