YAESU
The radio

FT-891
Firmware Update Manual

Use this software on a personal computer to update the firmware of the FT-891 transceiver after connecting it to the personal computer.

Important

Before downloading the software, please read the "Important Notes" carefully.

Downloading or installing this software will signify your agreement with the stipulations of the "Important Notes".

"Transceiver" is used hereafter to refer to the Yaesu FT-891 transceiver.

> ### CAUTION!
> ***Be sure to confirm the model and the version of your transceiver before starting the update.***
> ***Writing incorrect firmware to the transceiver may cause abnormal operation or failure.***

Important Notes

- All responsibility for the use of this software lies with the customer. Yaesu Musen Co., LTD cannot be held responsible in any way for damage or loss which may be incurred by the customer as a result of using this software.
- Copyrights and all other intellectual property rights for the software, as well as the software manual, are the property of YAESU MUSEN CO., LTD.
- The revision, modification, reverse engineering, or decompiling of this software is prohibited. Redistribution, transfer, and resale of downloaded files are also prohibited.
- Downloaded files are for personal use only.
- If you cannot perform the firmware update yourself, please consult with one of our sales sites or service centers.

System Requirements (Operating Environment)

Supported Operating Systems
- Microsoft® Windows® 11
- Microsoft® Windows® 10
- Microsoft® Windows® 8.1

CPU
CPU which satisfies OS (operating system) requirements

RAM (System Memory)
Sufficient RAM (system memory) to meet or exceed the OS (operating system) requirements

HDD (Hard Disk)
HDD (hard disk) with capacity to meet or exceed the OS (operating system) requirements

In addition to having sufficient free space for the OS to operate, the program requires 20Mbyte or more of free space.

Necessary PC interface
USB port (USB1.1/USB2.0)

Do not connect the USB cable to the personal computer and the FT-891 until after the "virtual COM port driver" installation is completed, because the wrong driver may inadvertently be installed.

USB Driver (for Performing Version Updates via the USB Port)
Install the FT-891 virtual COM port driver on the personal computer before beginning the firmware update process. Please see "**FT-891 USB Driver (Virtual COM Port Driver)**" on the Yaesu Website for details (http://www. yaesu.com/).

Cables
USB cable (type A to B)

Please have a commercially available cable ready.

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How to Confirm the Current Firmware Version of the transceiver

MAIN, DSP, and LCD(Panel) firmware are available for FT-891 transceiver. Check the firmware version, and perform firmware updates when needed.

1. Press and hold the [**PWR/LOCK**] key to turn the transceiver **ON**.
2. Press and hold the [**F**] key to activate the Menu mode.
3. Rotate the MULTI function knob to select Menu Mode "**18-01** [**MAIN VERSION**]", "**18-02** [**DSP VERSION**]" or "**18-03** [**LCD VERSION**]".
   The firmware versions will be displayed on the LCD screen.

```
MENU      18-01   VERSION
RESET            FACTORY
MAIN VERSION     V**-**
DSP VERSION      V**-**
LCD VERSION      V**-**
```

Regarding this Firmware

Before beginning the firmware update process, install the FT-891 virtual COM port driver on the personal computer.

See "**FT-891 USB Driver (Virtual COM Port Driver)**" on the Yaesu Website for details (http://www.yaesu.com/).

If the FT-891 virtual COM port driver has already been installed on the personal computer, skip this step and proceed with the following firmware update steps respectively:

How to Update the MAIN Firmware (see page 4)

Downloading the MAIN Firmware

    Transfer Software: YFSW023

    Firmware: AH065_M_V****.SFL

How to Update the DSP Firmware (see page 7)

Downloading the DSP Firmware

    Transfer Software: YFSW023

    Firmware: AH065_V****.dat

How to Update the LCD(Panel) Firmware (see page 10)

Downloading the LCD(Panel) Firmware

    Transfer Software: YFSW023

    Firmware: AH065_P_V****.SFL

How to Reset the Transceiver after updating the firmware (All Reset)
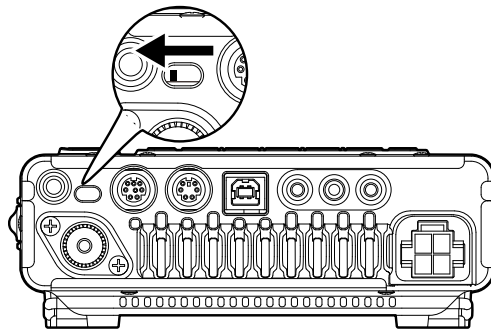
All Reset

1. Press and hold in the [**F**] key for one second to activate the Menu mode.
2. Rotate the **MULTI function** knob to select Menu Mode "**17-01** [**RESET**]".
3. Press the **MULTI function** knob, and then rotate the **MULTI function** knob to select "**ALL**".
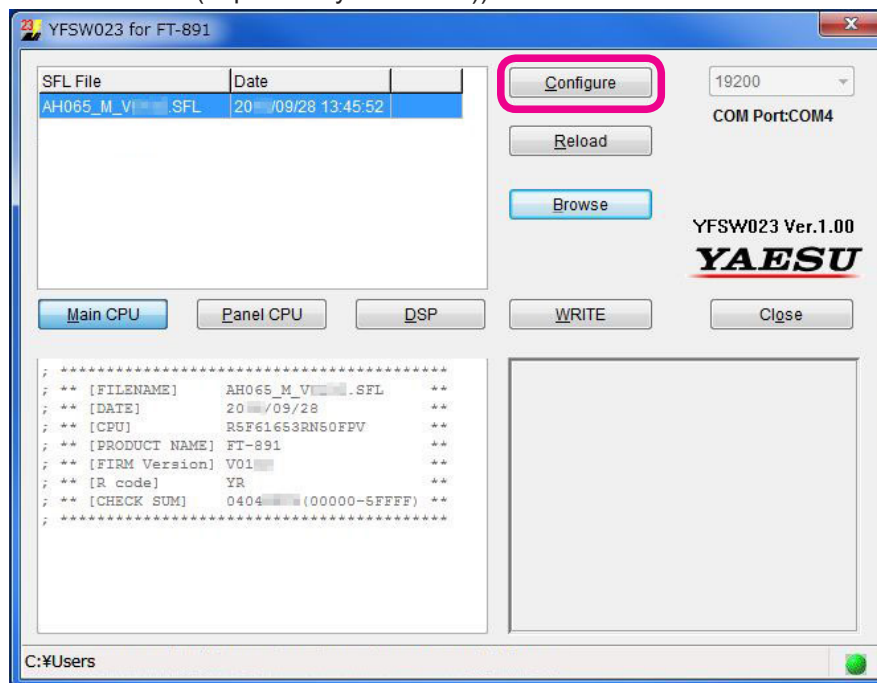4. Press and hold the **MULTI function** knob to reset and automatically restart the transceiver.

How to Update the MAIN Firmware

Preparation: Download the **YFSW023** transfer software, and the **AH065_M_V****.SFL** firmware, to the same folder on the PC, and Unzip the downloaded zip file.
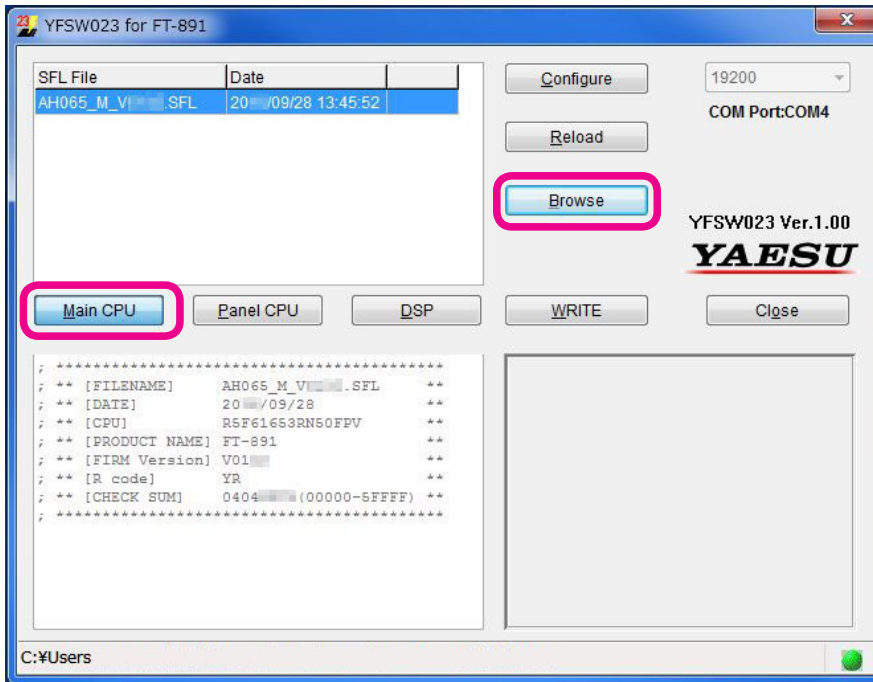
1. Confirm that the transceiver is turned **OFF**, and then disconnect the DC power cord, and all other cables from the transceiver unit.
2. Use a standard, commercially available USB cable, to connect the transceiver USB terminal and the PC USB port.
   (The FT-891 virtual COM port driver must be installed on the PC before connecting the USB cable.)
3. Move the programming slide switch (located on the rear panel of the transceiver) toward the left side (use a pin).
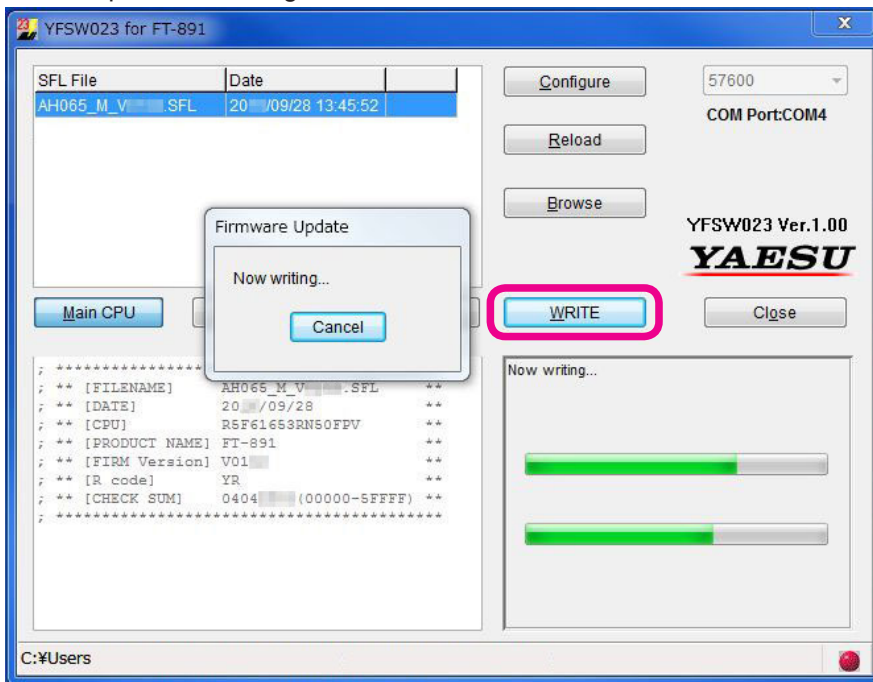

4. Confirm that the external power supply is turned **OFF**, and then connect the DC power cord to the transceiver.
5. Turn the external power supply **ON**.
   This puts the transceiver into programming mode (the display will be blank).
   NOTE: **Do not touch the transceiver POWER switch.**
6. Execute the **YFSW023** transfer software on the PC.
7. Click the [**Configure**] button on the YFSW023 transfer software screen, and set the COM port number.
   (Use an Enhanced COM port when using a USB cable. Please see "**FT-891 Virtual COM Port Driver**" on the Yaesu Website for details (http://www.yaesu.com/)).

8. Click the [**Browse**] button on the YFSW023 transfer software screen, and then select the folder that contains the previously downloaded, SFL transfer firmware file.
9. Click the [**Main CPU**] button on the YFSW023 transfer software screen.
   Only the MAIN firmware file will be displayed.

10. Click the [**WRITE**] button on the YFSW023 transfer software screen.
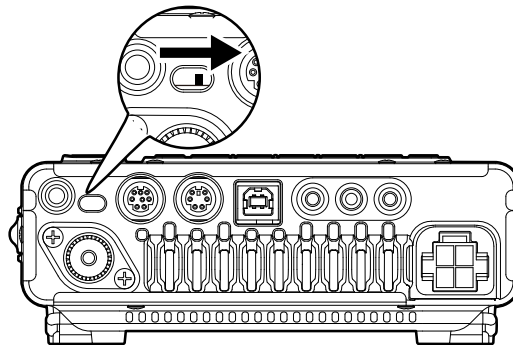   The firmware transfer process will begin.

11. hen the update is successful, the following screen will appear. Then click the [**OK**] button.

12. Click the [**Close**] button on the transfer software screen.
13. Turn the external power supply **OFF**.
14. Move the programming switch (located on the rear panel of the transceiver) toward the right side (use a pin).

15. Disconnect the USB cable from the transceiver and the personal computer.
16. Turn the external power supply **ON**.
17. Press and hold the [**PWR/LOCK**] key to turn the transceiver **ON**.
18. Reset the transceiver.
    For details, **see "How to Update the MAIN Firmware" on page 4**.
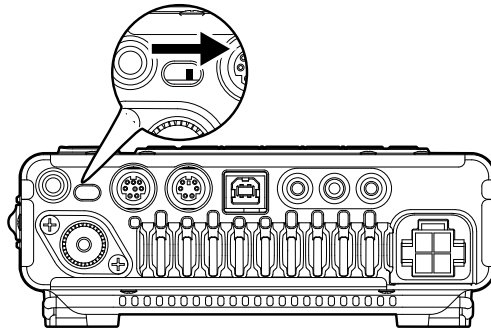19. Confirm the updated Firmware Version of the transceiver
    For details, **see "How to Confirm the Current Firmware Version of the transceiver" on page 2**.

If there is a problem during the updating process, turn the transceiver OFF, turn the external power supply OFF, and disconnect the DC cable from the transceiver. Then close the YFSW023 transfer software, and try the complete update process again.

How to Update the DSP Firmware

Preparation: Download the **YFSW023** transfer software, and the **AH065_V****.dat** firmware, to the same folder on the PC, and Unzip the downloaded zip file.

1. Confirm that the transceiver is turned **OFF**. Then disconnect the DC power cord, and all other cables from the transceiver.
2. Use a standard, commercially available USB cable, to connect the transceiver USB terminal and the PC USB port.
    (The FT-891 virtual COM port driver must be installed before connecting the USB cable.)
3. Confirm that the programming slide switch (located on the rear panel of the transceiver) is set to the right side.
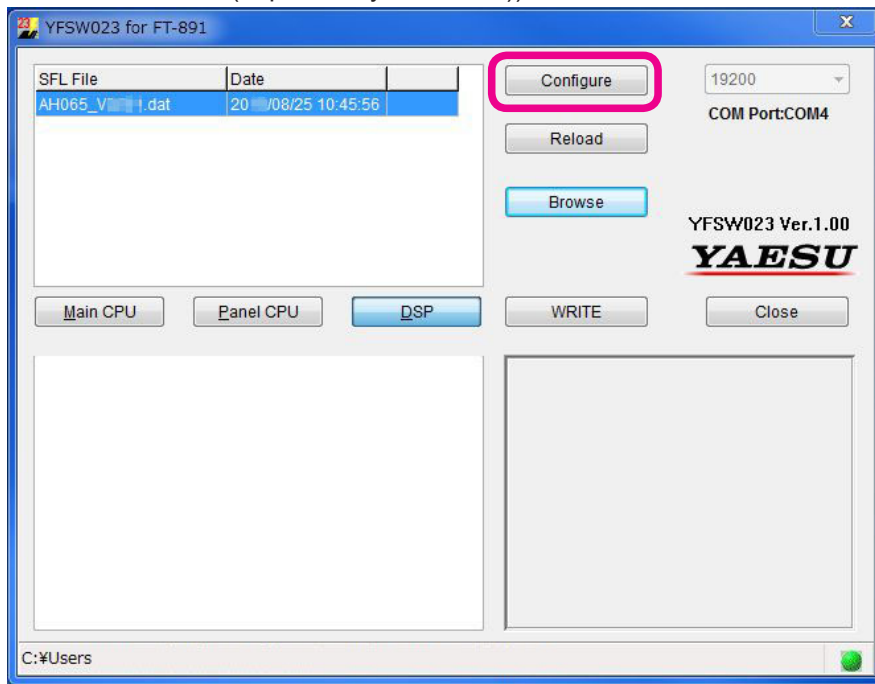

4. Confirm that the external power supply is turned **OFF**, and then connect the DC power cord to the transceiver.
5. Turn the external power supply **ON**.
6. Press and hold the [**PWR/LOCK**] key while pressing the [**F**] + [**C**] keys on the transceiver main panel, to turn the transceiver **ON** in the DSP programming mode.
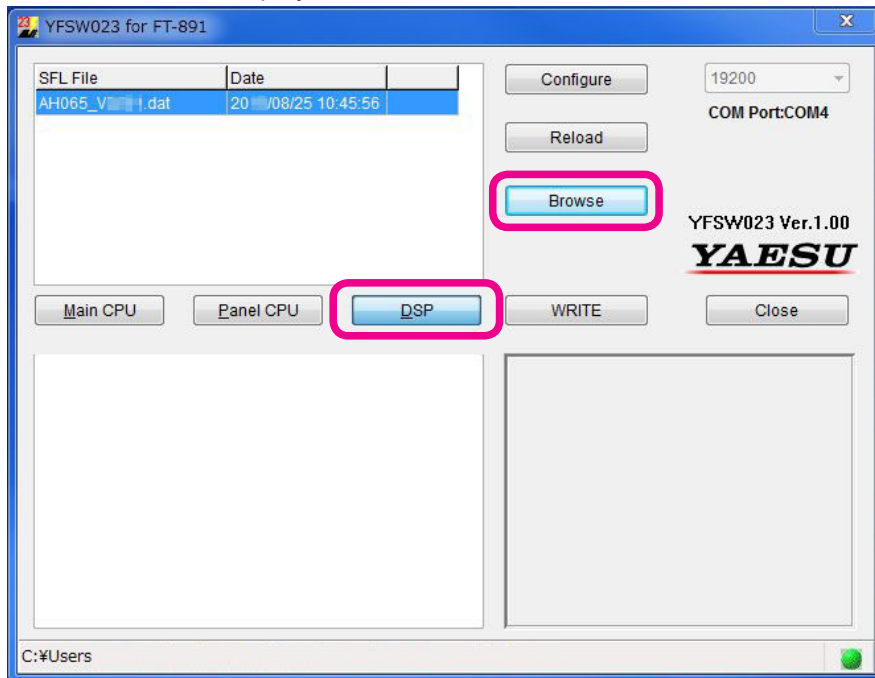   The below message will appear on the transceiver display.

7. Execute the **YFSW023** transfer software on the PC.

8. Click the [**Configure**] button on the YFSW023 transfer software screen, and then set the COM port number.
    (Select an Enhanced COM port when using a USB cable. Please see "FT-891 Virtual COM Port Driver" on the Yaesu Website for details (http://www.yaesu.com/)).
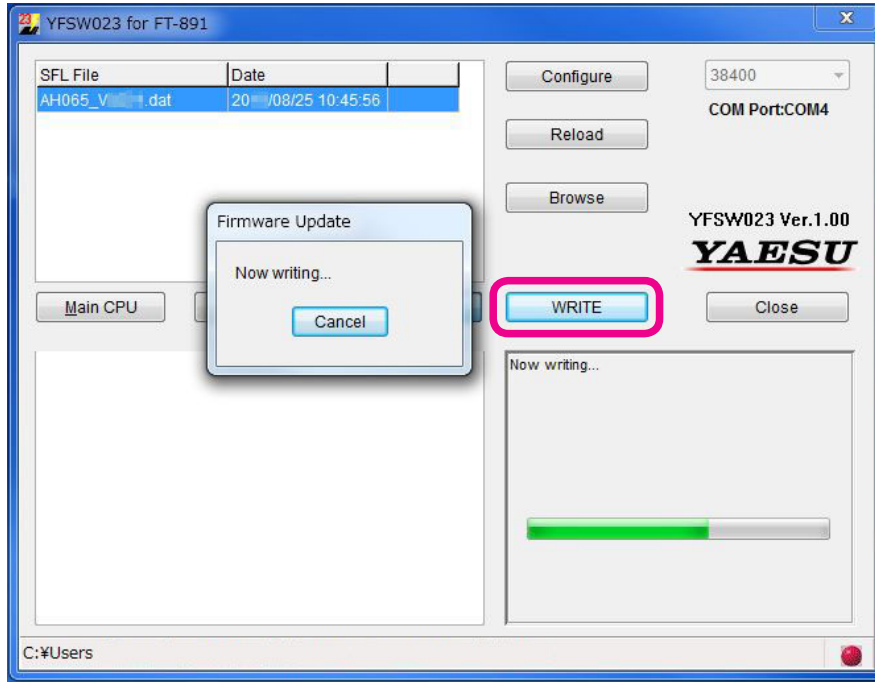

9. Click the [**Browse**] button on the YFSW023 transfer software screen. Then select the folder that contains the previously downloaded transfer firmware (dat file).
10. Click the [**DSP**] button on the YFSW023 transfer software screen.
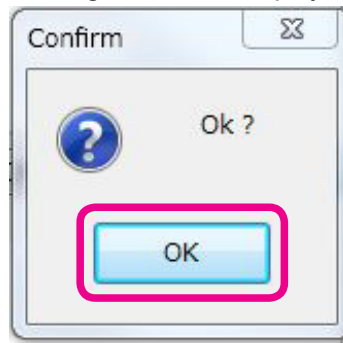   Only the dat firmware file will be displayed.

11. Click the [**WRITE**] button on the YFSW023 transfer software screen.
    The firmware transfer process will begin.

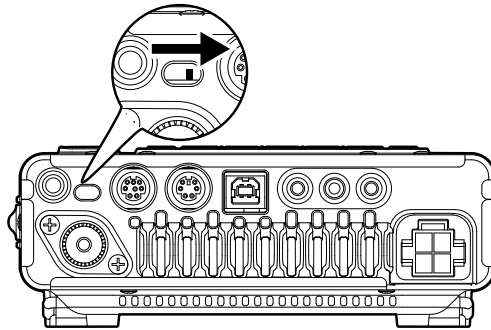12. When the update is successful, the following screen will display. Then click the [**OK**] button.

13. Click the [**Close**] button on the transfer software screen.
14. Press and hold the [**PWR/LOCK**] key to turn the transceiver **OFF**.
15. Turn the external power supply **OFF**.
16. Disconnect the USB cable from the transceiver and the personal computer.
17. Turn the external power supply **ON**.
18. Press and hold the [**PWR/LOCK**] key to turn the transceiver **ON**.
19. Reset the transceiver.
    For details, **see "How to Reset the Transceiver after updating the firmware (All Reset)" on page 3**.
20. Confirm the updated Firmware Version of the transceiver
    For details, **see "How to Confirm the Current Firmware Version of the transceiver" on page 2**.

If there is a problem during the updating process, turn the transceiver OFF, turn the external power supply OFF, and disconnect the DC cable from the transceiver. Then close the YFSW023 transfer software, and try the complete update process again.
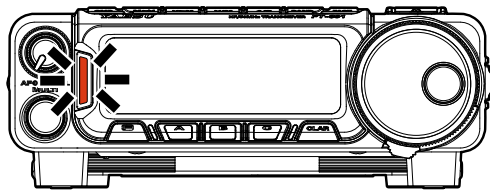
How to Update the LCD(Panel) Firmware

Preparation: Download the **YFSW023** transfer software and the **AH065_P_V****.SFL** firmware to the same folder on the PC, and Unzip the downloaded zip file.

1. Confirm that the transceiver is turned **OFF**. Then disconnect the DC power cord and all other cables from the transceiver.

2. Use a standard, commercially available USB cable, to connect the transceiver USB terminal and the PC USB port.
   (The FT-891 virtual COM port driver must be installed before connecting the USB cable).

3. Confirm that the programming slide switch (located on the rear panel of the transceiver) is set to the right side.
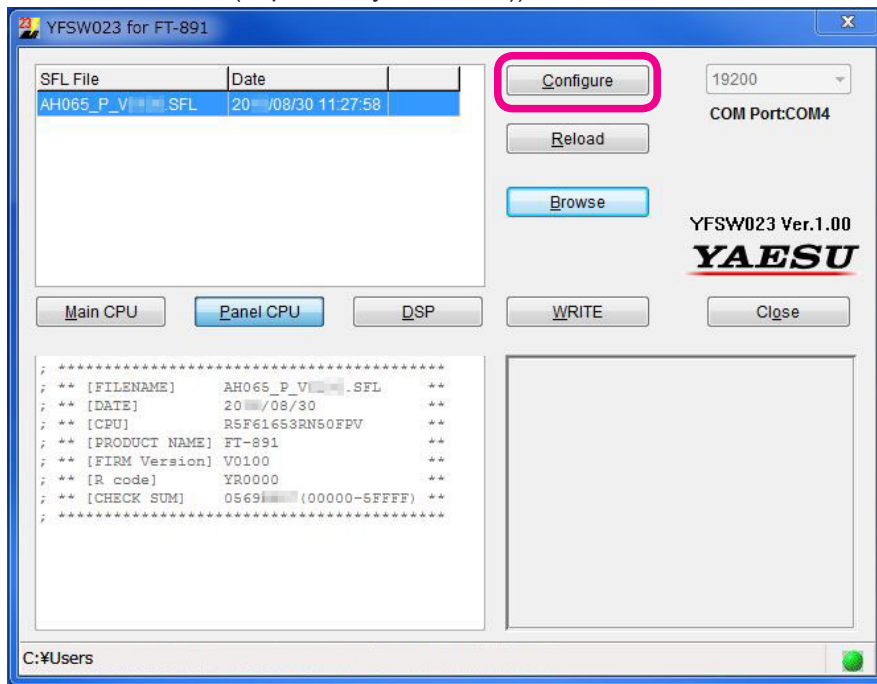

4. Confirm that the external power supply is turned **OFF**, and then connect the DC power cord to the transceiver.

5. Turn the external power supply **ON**.

6. Press and hold the [**PWR/LOCK**] key while pressing the [**BAND**] + [**FAST**] keys on the transceiver main panel, to turn the transceiver **ON** in the LCD(Panel) Firmware programming mode.
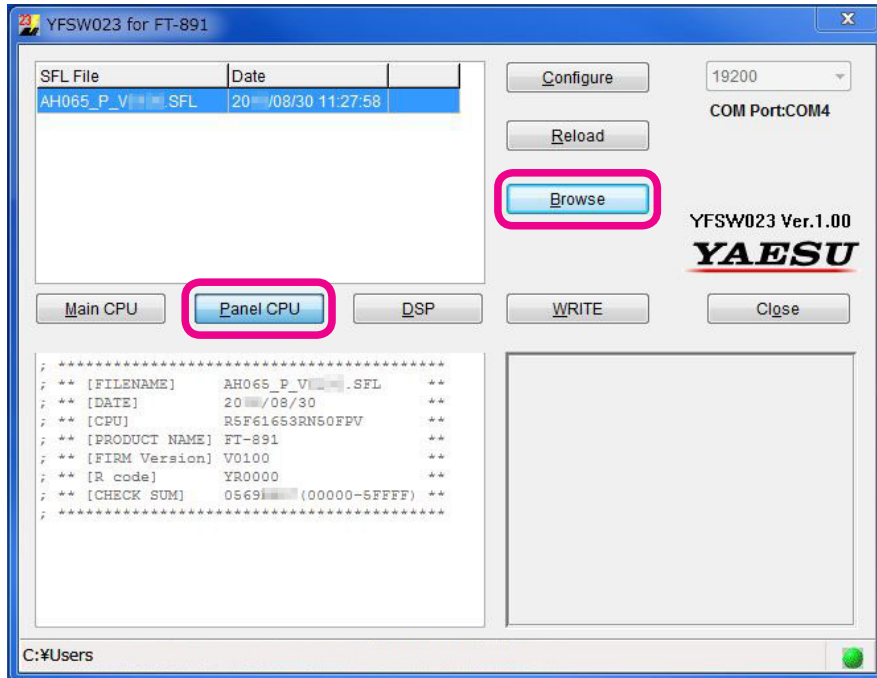   The TX/BUSY Indicator on the transceiver will glow orange.

7. Execute the **YFSW023** transfer software on the PC.

8. Click the [**Configure**] button on the **YFSW023** transfer software screen and then set the COM port number.
(Select an Enhanced COM port when using a USB cable. Please see "FT-891 Virtual COM Port Driver" on the Yaesu Website for details (http://www.yaesu.com/)).
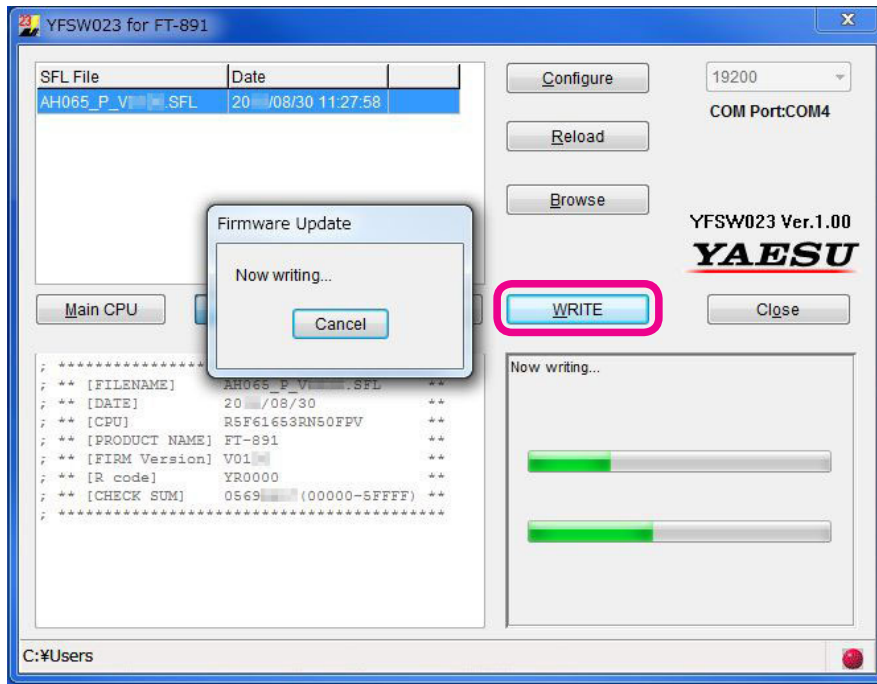

9. Click the [**Browse**] button on the YFSW023 transfer software screen. Then select the folder that contains the previously downloaded transfer firmware (SFL file).
10. Click the [**Panel CPU**] button on the YFSW023 transfer software screen.
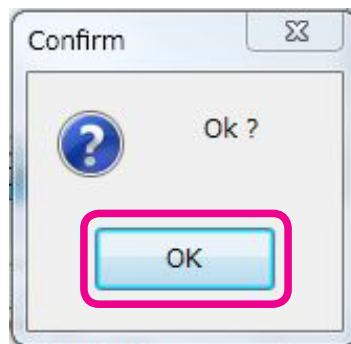Only the LCD(Panel) firmware file will be displayed.

11. Click the [**WRITE**] button on the YFSW023 transfer software screen.

The firmware transfer process will begin.

12. When the update is successful, the following screen will be displayed. Then click the [**OK**] button.

13. Click the [**Close**] button on the transfer software screen.
14. Press and hold the [**PWR/LOCK**] key to turn the transceiver **OFF**.
15. Turn the external power supply **OFF**.
16. Disconnect the USB cable from the transceiver and the personal computer.
17. Turn the external power supply **ON**.
18. Press and hold the [**PWR/LOCK**] key to turn the transceiver **ON**.
19. Reset the transceiver.
    For details, see **"How to Reset the Transceiver after updating the firmware (All Reset)" on page 3**.
20. Confirm the updated Firmware Version of the transceiver
    For details, see **"How to Confirm the Current Firmware Version of the transceiver" on page 2**.

If there is a problem during the updating process, turn the transceiver OFF, turn the external power supply OFF, and disconnect the DC cable from the transceiver. Then close the YFSW023 transfer software, and try the complete update process again.

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