

FT-4XR/FT-4XE

FT-4VR/FT-4VE

Memory Programmer

Instruction Manual

The Memory Programmer software provides convenient editing of the FT-4XR/FT-4XE and FT-4VR/FT-4VE memory channel frequencies, channel information and alpha tags, using a personal computer. Also the transceiver parameters and the set (menu) mode items may be edited and configured easily from the computer keyboard.

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Introduction

The Memory Programmer software uses a Personal Computer to quickly enter and save the FT-4XR/XE and FT-4VR/VE memory channel frequencies and data. Also the many Set (Menu) Mode settings may be adapted for individual operating preferences. All of the information is saved. The setting data can be imported from the FT-4XR/XE/VR/VE and edited setting data can be transferred to the FT-4XR/XE/VR/VE.

- ☐ Edit the RX/TX frequencies, memory names, CTCSS/DCS settings, transmit power, etc. that is related to the memory channels.
- ☐ Edit the Memory bank link setting.
- ☐ Configure the various Set (Menu) Mode options on the computer monitor screen.
- ☐ Use handy editing functions, such as copy and paste for each line of memory channel number.

About this manual

This manual contains symbols and conventions to call attention to important information.

| Symbols | Description |
|---|--|
|  | This icon indicates cautions and alerts the user should be aware of. |
|  | This icon indicates helpful notes, tips and information. |
|  | This icon indicates other pages containing relevant information. |

Important Notes

Before downloading this software, please read the “Important Notes” carefully.

- 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, and decompiling of this software is prohibited. Redistribution, transfer, and resale of downloaded files are also prohibited.
- Do not resell the software or manuals.
- All responsibility for the use of this software lies with the customer. Yaesu cannot be held responsible in any way for any damages or losses, which may be incurred by the customer as a result of using this software.

To use the Memory Programmer, the software application must first be installed onto the computer.

Read this manual thoroughly and install the software.

System Requirements

Supported Operating Systems

Microsoft® Windows® 10 (32 bit/64 bit)

Microsoft® Windows® 8.1 (32 bit/64 bit)

Microsoft® Windows® 7 (32 bit/64 bit)

CPU

The performance of the CPU must be able to satisfy the operating system requirements.

RAM (system memory)

The capacity of the RAM (system memory) must be more than sufficient to satisfy the operating system requirements.

HDD (Hard Disk)

The capacity of the HDD must be more than sufficient to satisfy the operating system requirements.

In addition to the memory space required to run the operating system, about 50 MB or more of additional memory space is required to run the program.

Necessary PC peripheral interfaces

USB port (USB 1.1 / USB 2.0)

Required Cable

Programming cable SCU-35



When using the SCU-35 Programming cable, install the designated driver on the computer.

Trademarks

Microsoft®, Windows®, Windows® 7, Windows® 8.1, Windows® 10 are registered trademarks in the United States and other countries.

The flow of a setup of Memory Programmer

The procedure when using Memory Programmer for the first time is as follows.:

Installing the SCU-35 driver software (Page  4)



Installing the Memory Programmer (Page  7)



Basic Operation (Page  8)



About Memory Programmer (Page  11)

Set up the Memory Programmer

Installing the SCU-35 driver software

The procedure to install the SCU-35 driver software on a Windows 7® (64 bit) computer is shown below for the purpose of explanation.

Preparation

- ☐ Please download the SCU-35 driver software from the Yaesu Website for details (<http://www.yaesu.com/>).
- ☐ Extract the downloaded (SCU-35_Programming_Cable_Driver.zip) file.
- ☐ Start up the computer as an “Administrator” user.



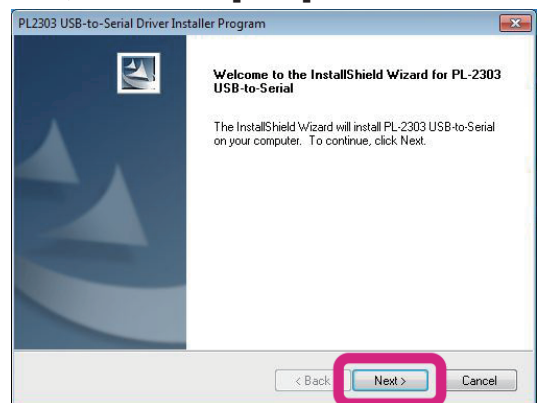
Before installing the driver, make sure that the SCU-35 Programming Cable is disconnected from the computer.

SCU-35 Driver Software Installation

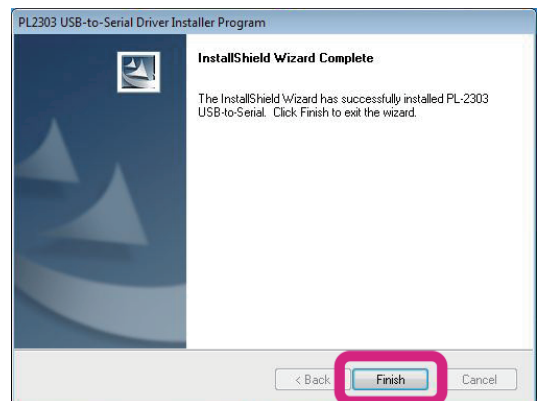
1. Double-click the “PL2303_Prolific_DriverInstaller_v****.exe” in the same folder that you have unzip the files.

When the [User Account Control] dialog box opens, click the [Yes].

2. The dialog box, which is shown right, will open. Click the [Next], to initiate the installation of the driver.



3. When the installation is finished, the dialog box shown right will open. Click the [Finish], to complete the installation of the driver.



4. Connect the SCU-35 Programming Cable to the USB jack on the computer.
 - The SCU-35 Programming Cable will be recognized automatically.
 - To confirm whether the SCU-35 driver is installed correctly, proceed to next page. Confirmation whether the SCU-35 driver is installed.
5. Click the [Start] button in the tool bar, then right-click the [Computer].
6. Click the [Property], then click the [Device Manager].

Set up the Memory Programmer

7. When the [User Account Control] dialog box opens, click the [Yes].
8. Open the [Device Manager] dialog box, then double-click the [Ports (COM&LPT)].
 - When the “Prolific USB-to-Serial Comm Port (COM X)” (X: Comm Port Number) is displayed, the SCU-35 Programming Cable is functioning normally.
 - To connect the transceiver to the PC, keep the Comm Port Number in mind.

When the Driver Software Installation Fails

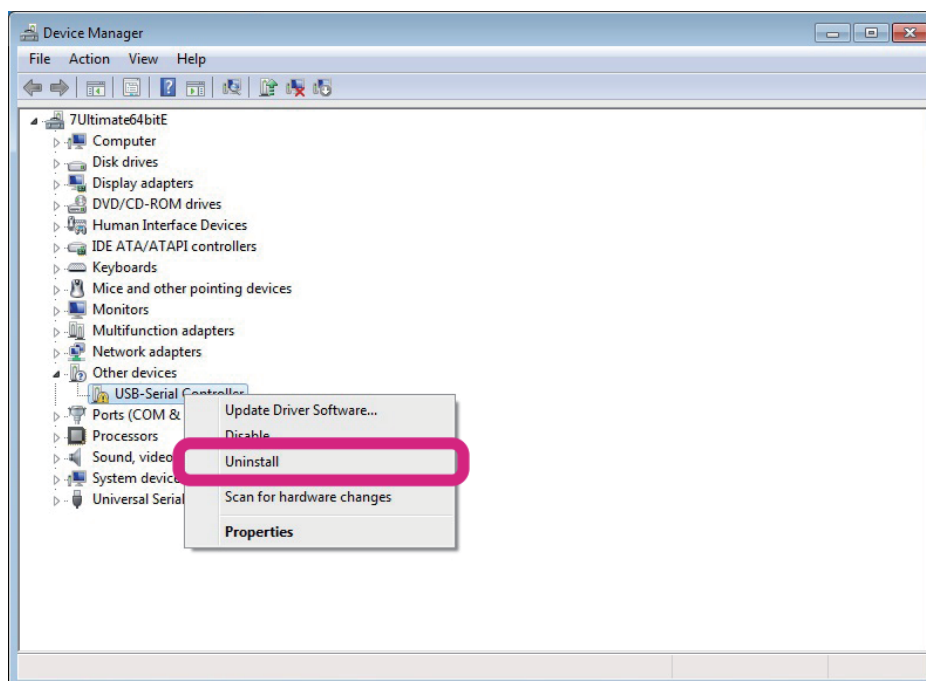
The driver installation may fail when:

The installation wizard is canceled during the installation.

The SCU-35 PC Programming Cable is connected to the computer before installing the driver.

When the installation of the driver fails:


1. Open the [Device Manager] dialog box, as described on step 6 in the “SCU-35 Driver Software Installation” instruction section
2. Right-Click the [Other devices] which is appended to the “!” or “?” icon, then click the [Uninstall], to uninstall the driver.
3. Retry the installation of the driver.

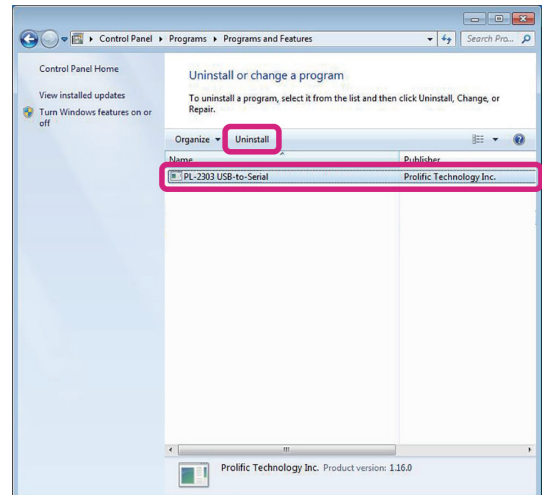


Set up the Memory Programmer

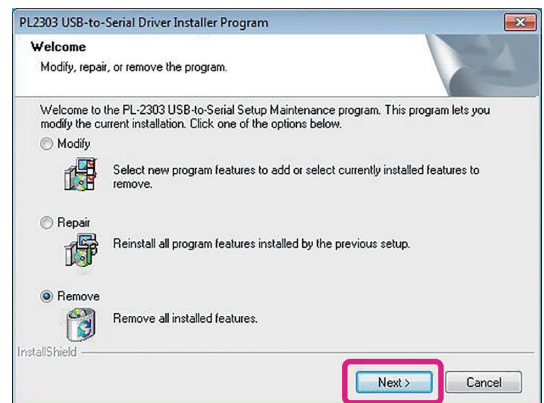
How to Uninstall the Programming Cable Driver

If you wish to uninstall the SCU-35 Programming Cable driver, perform the following procedures. The procedure to uninstall the SCU-35 driver software on a Windows 7® (64 bit) computer is shown below for the purpose of explanation.

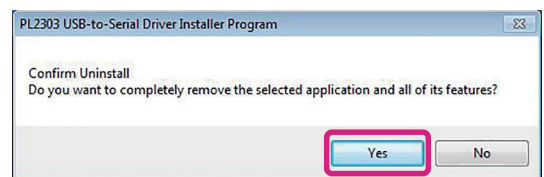
1. Disconnect the SCU-35 PC Connection Cable from the computer.
2. Click the [Start]  [Control Panel]  [Uninstall a program].
3. Click the “PL- 2303 USB-to-Serial”, then click the [Uninstall].



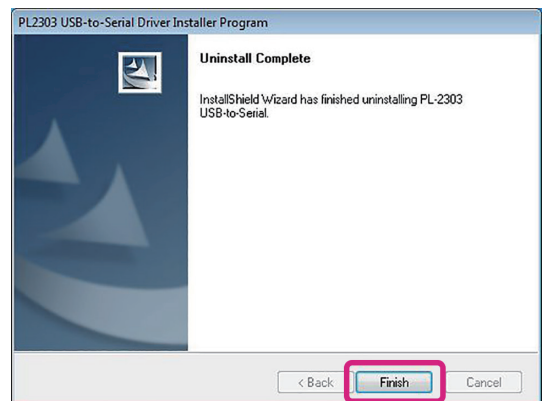
4. Click the [Next].



5. Click the [Yes] to uninstall the SCU-35 programming cable driver.



6. When the uninstall is finished, the dialog box shown to the right will open. Click the [Finish] to complete the removal of the SCU-35 programming cable driver.



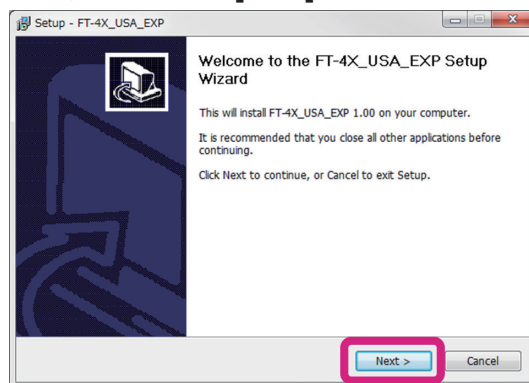
Set up the Memory Programmer

Installing the Memory Programmer

The procedure to install the FT-4XR/XE, FT-4VR/VE memory programmer on a Windows 7® (64 bit) computer is shown below for the purpose of explanation.

Preparation


- ☐ Please download the memory programmer from the Yaesu Website for details (<http://www.yaesu.com/>).
 - ☐ Extract the downloaded file.
 - FT-4XR_Memory_Programmer_USA_EXP.zip (for FT-4XR)
 - FT-4XE_Memory_Programmer_EU.zip (for FT-4XE)
 - FT-4VR_FT-4VE_Memory_Programmer_USA_EXP_EU.zip (for FT-4VR/VE)
 - ☐ Start up the computer as an “Administrator” user.
1. Double-click the “FT-4*_Setup.exe” in the same folder that you have unzip the files.
When the [User Account Control] dialog box opens, click the [Yes].
 2. The dialog box shown to the right will open.
Click the [Next], to initiate the installation of the memory programmer.
 3. When the install is finished, the dialog box shown to the right will open. Click the [Finish] to complete the Memory Programmer.



How to Uninstall the Memory Programmer

The procedure to uninstall the FT-4XR/XE, FT-4VR/VE memory programmer on a Windows 7® (64 bit) computer is shown below for the purpose of explanation.

1. Disconnect the SCU-35 Programming Cable from the computer.
2. Click the [Start] ➡ [Control Panel] ➡ [Uninstall a program].

 When [Uninstall a program] is not displayed, click the [Programs and Features].
3. Click on the [FT-4*_*.] and then click the [Uninstall].
When the [User Account Control] dialog box opens, click the [Yes].

Basic Operation

Activating the Memory Programmer

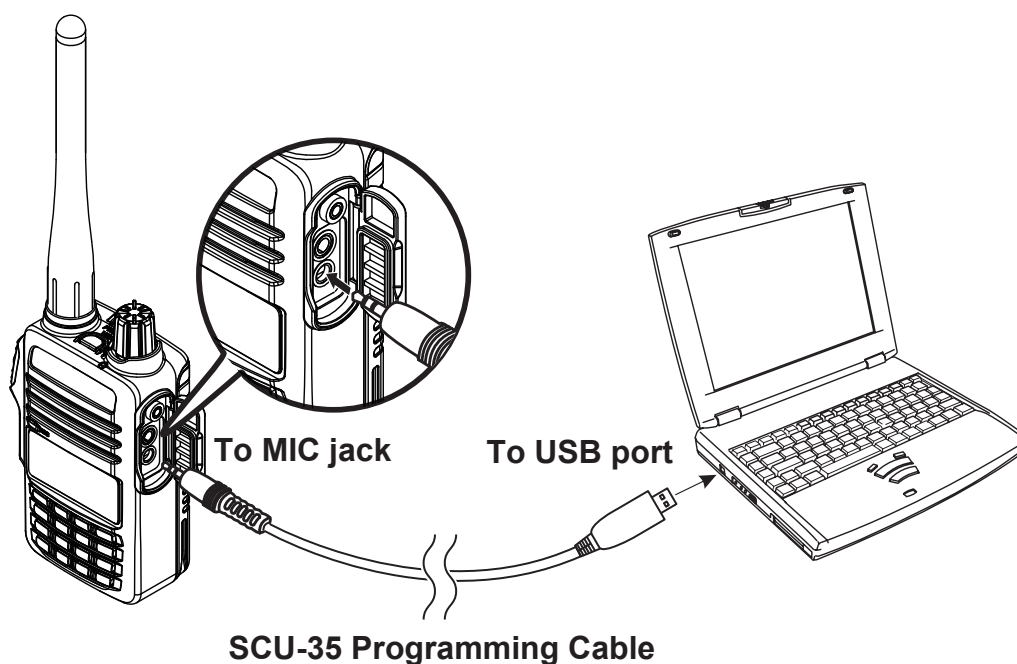
Double-click the [FT-4*_*.] on the desktop to activate the Memory Programmer.

Exiting the Memory Programmer, click on [Exit] from [File] menu.



Connecting the FT-4XR/XE/VR/VE to the computer

1. Turn the transceiver **OFF**.
2. Connect the SCU-35 Programming Cable to the USB port on the computer and connect the plug to the MIC jack.



While transmitting and receiving the data, Do not disconnect the SCU-35 Programming cable.

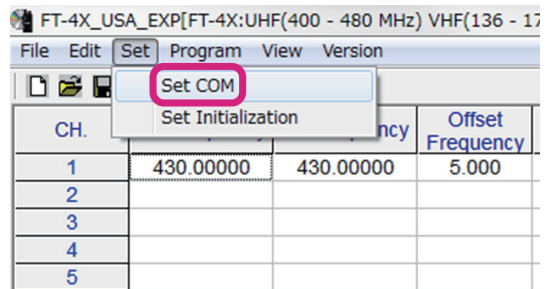
3. Turn the transceiver **ON**.

Basic Operation

Set the Comm Port Number of the SCU-35 driver

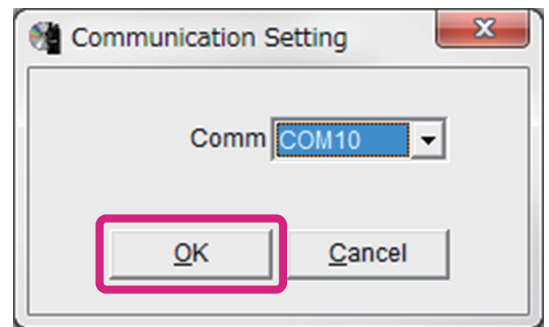
1. Click the [Set COM] parameter in the [Set] menu.

The “Communication Setting” window will open.



2. Select the Comm Port Number, then click the [OK].

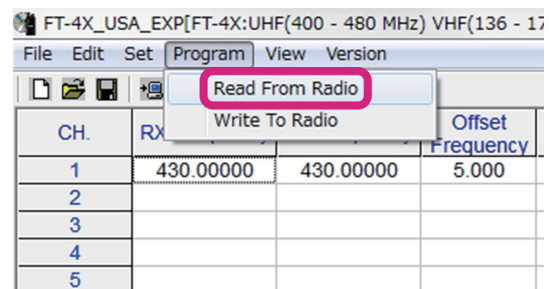
To confirm the Comm Port Number of the SCU-35 driver, see step 8 on “SCU-35 Driver Software Installation”.



Read the settings from the transceiver

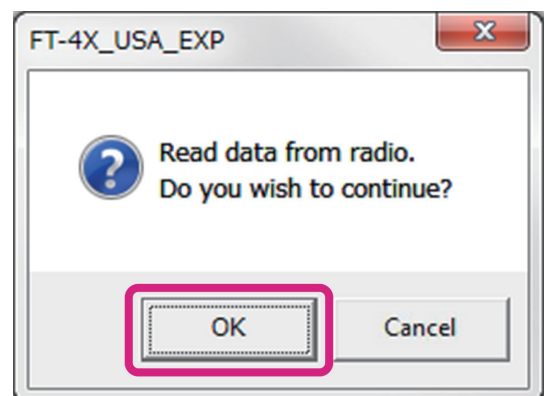
If writing the settings to the transceiver, see “Write the settings to the transceiver”

1. Click the [Read from Radio] parameter in the [Program] menu.



2. The Confirmation popup window will open, then click the [OK].

Completion percentage popup window will appear.

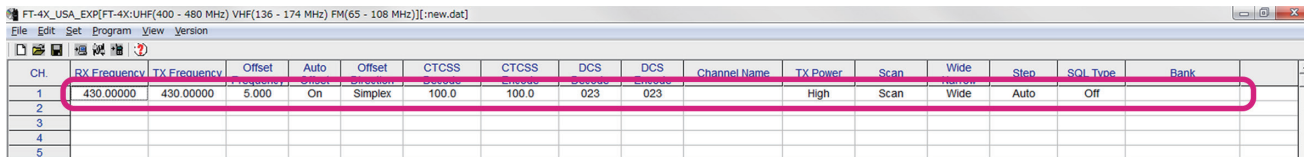


3. If the reading is successful, popup window will open, then click the [OK].

Basic Operation

Edit the transceiver settings on the Memory Programmer

1. Double-click the cells of the each channels.
2. Input the alphanumeric character or select the settings of each channels.
The channels may be cut and copy-pasted to the desired channel.



| CH. | RX Frequency | TX Frequency | Offset | Auto | Offset | CTCSS | CTCSS | DCS | DCS | Channel Name | TX Power | Scan | Wide | Step | SQL Type | Bank |
|-----|--------------|--------------|--------|------|---------|-------|-------|-----|-----|--------------|----------|------|------|------|----------|------|
| 1 | 430.00000 | 430.00000 | 5.000 | On | Simplex | 100.0 | 100.0 | 023 | 023 | | High | Scan | Wide | Auto | Off | |
| 2 | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |



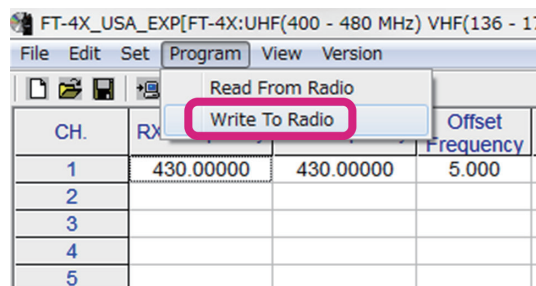
The rows on the each channels may be cut and copy-pasted, but a part of the cells on the each channels may not be cut and copy-pasted.



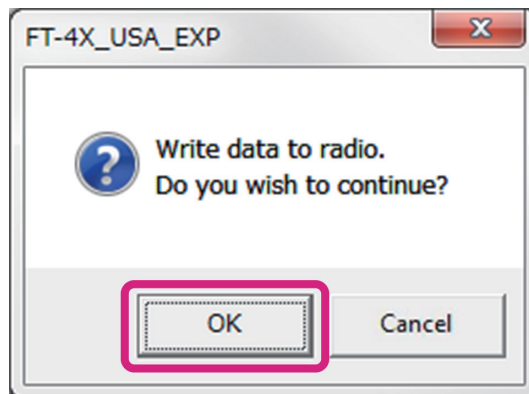
For details on the contents of the each settings, see 11 page.

Write the settings to the transceiver

1. Click the [Write to Radio] parameter in the [Program] menu.



2. The Confirmation popup window will open, then click [OK].
Completion percentage popup window will appear.

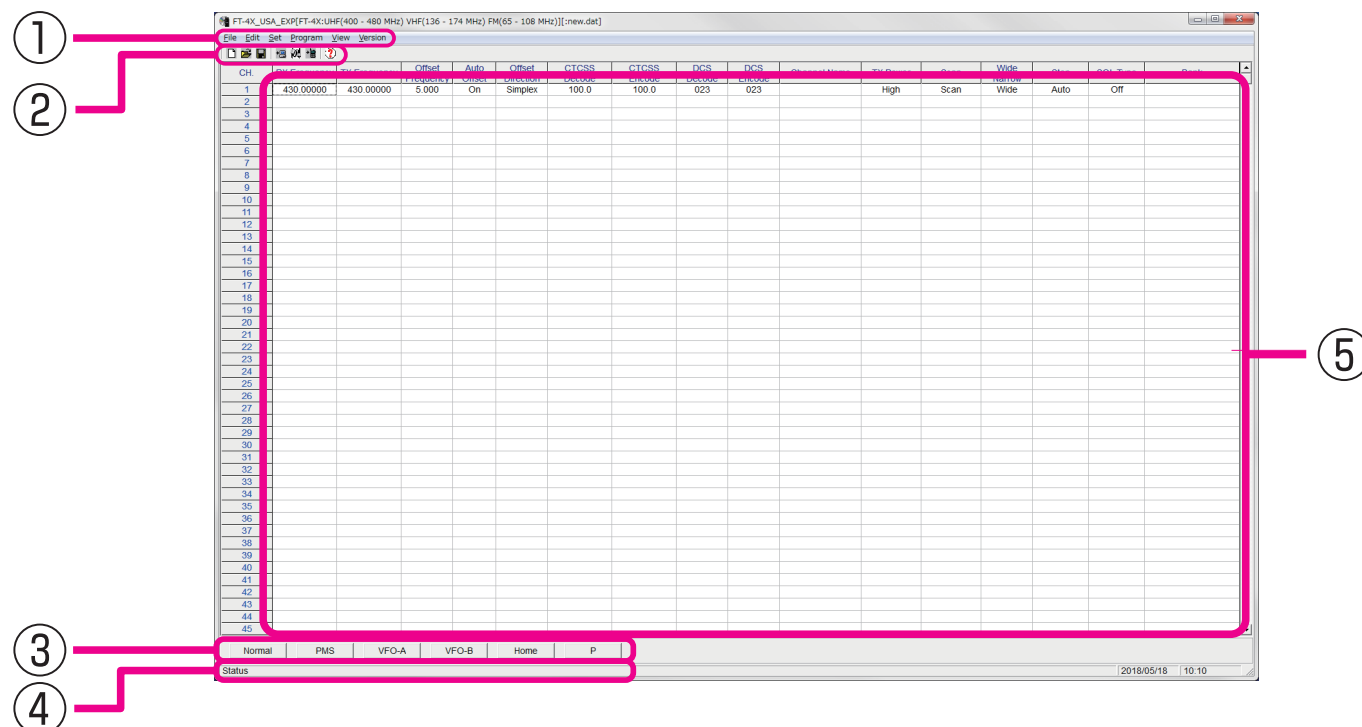


3. If the writing is successful, popup window will open, then click [OK].

About Memory Programmer

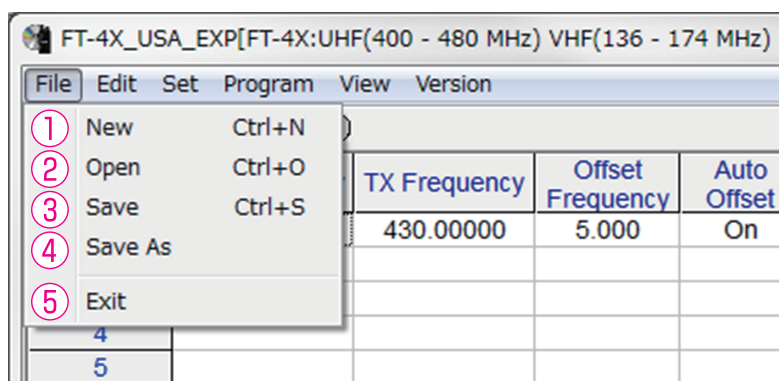
Initial screen

This is the initial screen displayed when starting the memory programmer.



| | Name | Description | |
|---|-------------------------------|---|----|
| ① | Menu Bar | Click the menu bar to read from the radio, write to radio, set language , set initialization, etc. | 12 |
| ② | Tool Bar | Click the [Tool bar] parameter in the [View] menu to display or hide the Tool bar, which includes buttons for some of the most common commands in the Memory Programmer. A check mark appears next to the [Tool bar] parameter when the Tool bar is displayed. | 15 |
| ③ | Switching Button | Click the each button (PMS, VFO-A, etc) to switch to display the each settings. | 16 |
| ④ | Status Bar | Click the [Status Bar] parameter in the [Setting] menu to display or hide the Status Bar, which describes the action to be executed by the selected menu item or depressed tool bar button, and keyboard latch state. A check mark appears next to the [Status Bar] parameter when the Status Bar is displayed. | 15 |
| ⑤ | Set Value Input Screen | Double-click the each channel setting to input the setting values. | 17 |

File menu



① New

Open a new configuration file from the disk drive.

Click the [New] parameter in the [File] menu to open the Memory Programmer default configuration file.

The default setting are set in the default configuration file.

② Open

Open a previously-saved configuration file from the disk.

Click the [Open] parameter in the [File] menu, a pop-up window appears which shows all the saved files in the specified path.

③ Save

Save the programming session to the disk with the same name and directory.

Click the [Save] parameter in the [File] menu, a caution message will appear. If you agree to over-write the current file, click the [OK].

④ Save as

Save the programming session to the disk with a new name.

Click the [Save As] parameter in the [File] menu, a pop-up window will appear which displays all the current files saved to the specified path.

To save the programming session with a new name, type the new file name in the bottom box, then click the [OK].

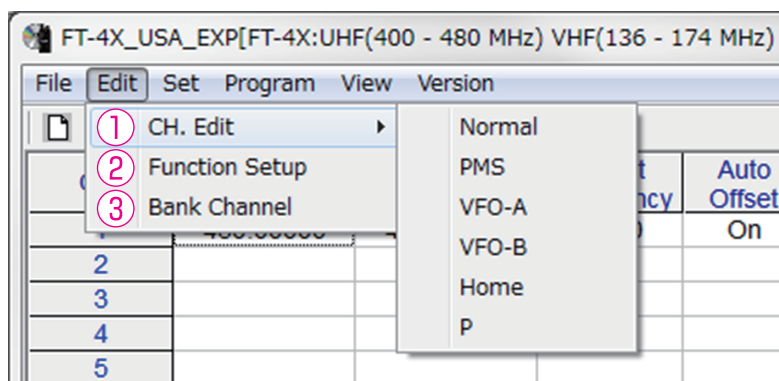
⑤ Exit

Exit the program and close the window.

If the present configuration has not been saved to disk, you will be asked to confirm whether or not you wish to save it.

Menu Bar

Edit menu



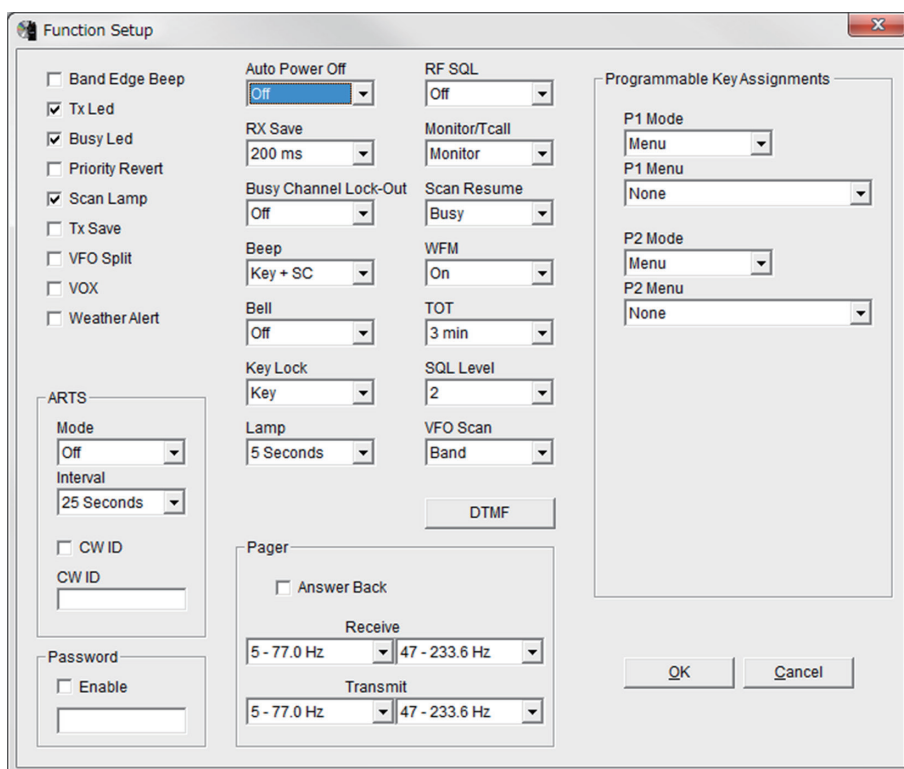
① CH. Edit

Click the key to switch the set value input screen. This key operates the same as switching button.

② Function Setup

This function may customize the various functions of the Transceiver according to your preferences.

Click the [Function Setup] parameter in the [Edit] menu to open the “Function Set-up” window.

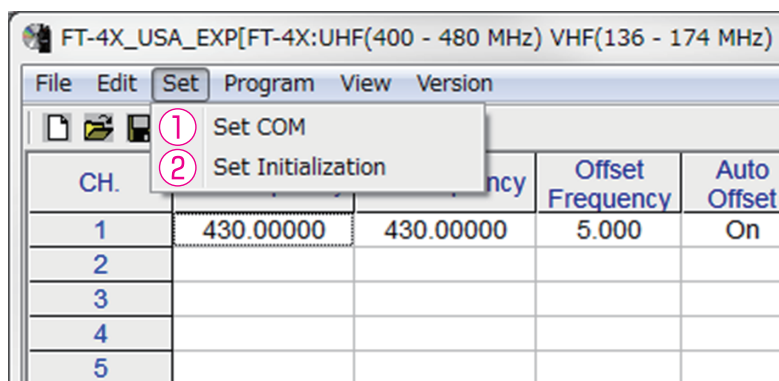


③ Bank Channel

A combination of up to 200 memory channels and preset memory channels can be registered to each of Bank 1 to Bank 10. When recalling a bank, only channels registered to the bank will be recalled.

Menu Bar

Set menu



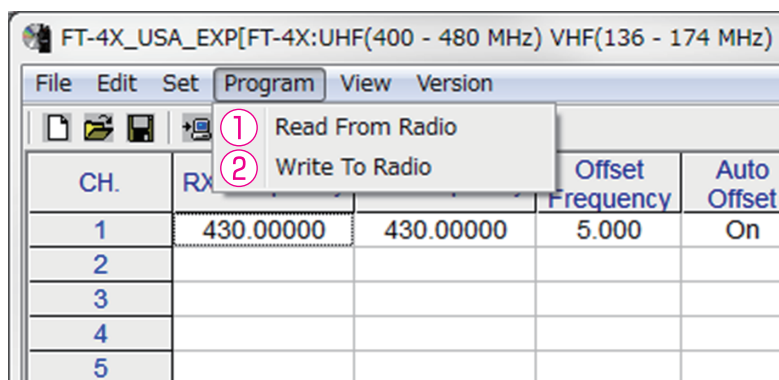
① Set COM

Set the Comm Port number of the SCU-35 driver.

② Set Initialization

Initialize the configuration content of the Memory Programmer.

Program menu



① Read From Radio

This command transfers the settings data of the transceiver to the memory programmer.



Read data may be stored to the computer files, using the [Save] or [Save as] commands in the [File] menu.

For details, see “Read the settings from the transceiver”.

② Write To Radio

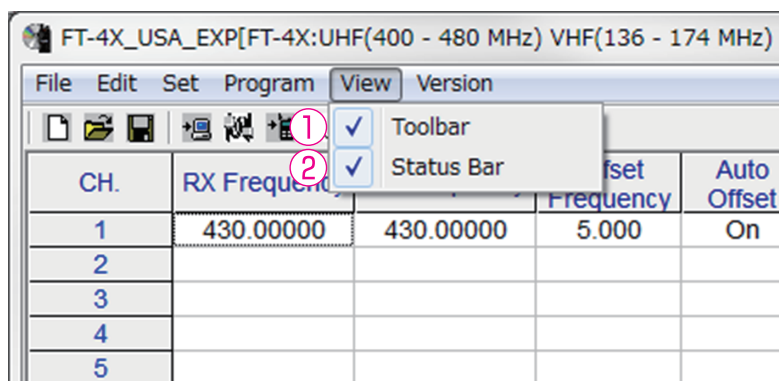
This command downloads the Memory Programmer data from the computer to the transceiver.

Click the [Write To Radio] parameter in the [Program] menu. The transmission procedure screen will open.

To load a previously created data file to the transceiver, click the [Open] parameter in the [File] menu, and open the desired file before performing the send data operation above.

Menu Bar

View menu



① Tool Bar

Click the [Toolbar] parameter in the [View] menu to display or hide the Tool bar. The tool bar includes buttons for some of the most often used commands in the Memory programmer. A check mark appears next to the [Toolbar] parameter when the Tool bar is displayed.

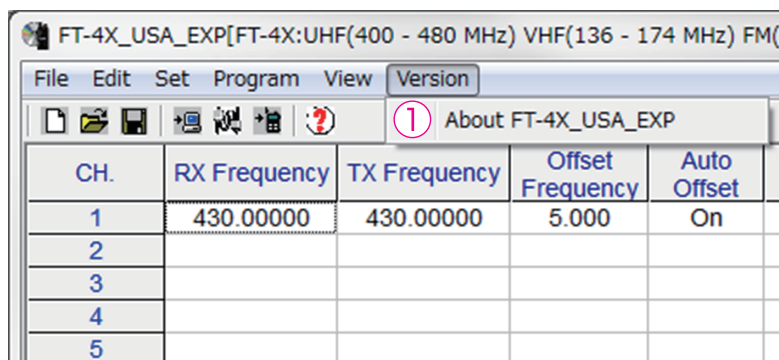


② Status Bar

Click the [Status Bar] parameter in the [View] menu to display or hide the Status Bar. The [Status Bar] describes the action to be executed by the selected menu item, or the depressed tool bar button, and keyboard latch state. A check mark appears next to the [Status Bar] parameter when the Status Bar is displayed.



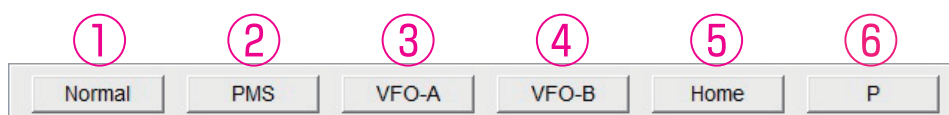
Version menu



① About FT-4*

Click the [About FT-4X_USA_EXP], [About FT-4X_EU] or [About FT-4V] parameter in the [Version] menu to display the version and copyright of the Memory Programmer.

Switching buttons



① Normal

Click the [Normal] button to change the normal operation settings.

② PMS

Click the [PMS] button to change the PMS memory channel settings.

③ VFO-A

Click the left mouse button on the [VFO-A] button to change the default settings of VFO-A-V (VHF) or VFO-A-U (UHF)*.

*: FT-4XR and FT-4XE only.

④ VFO-B

Click the [VFO-B] button to change the default settings of VFO-B-FM (FM), VFO-B-V (VHF) or VFO-B-U (UHF)*.

*: FT-4XR and FT-4XE only.

⑤ Home

Click the [Home] button to change the Home channel default settings of the H-FM (FM), H-V (VHF) or H-U (UHF)*.

*: FT-4XR and FT-4XE only.

⑥ P

Click the [P] button to change the default settings of the P1 and P2 keys of the transceiver.

Setting the Items

| CH. | RX Frequency | TX Frequency | Offset Frequency | Auto Offset | Offset Direction | CTCSS Decode | CTCSS Encode | DCS Decode | DCS Encode | Channel Name |
|-----|--------------|--------------|------------------|-------------|------------------|--------------|--------------|------------|------------|--------------|
| 1 | 430.00000 | 430.00000 | 5.000 | On | Simplex | 100.0 | 100.0 | 023 | 023 | |
| 2 | | | | | | | | | | |

① RX Frequency

Enter the RX.

Enter the desired receive frequency.

② TX Frequency

Enter the TX.

Enter the desired transmit frequency.

③ Offset Frequency

This item sets the offset frequency for the repeater.

④ Auto Offset

This item sets the auto offset frequency ON or OFF for the repeater.

⑤ Offset Direction

This item selects the offset direction for the repeater.

- Plus

The transmit frequency is shifted to the plus offset.

- Minus

The transmit frequency is shifted to the minus offset.

- Simplex

The transmit frequency is not shifted.

⑥ CTCSS Decode

To set the tone frequency on receiving.

⑦ CTCSS Encode

To set the tone frequency on transmitting.

⑧ DCS Decode

To set the DCS code on receiving.

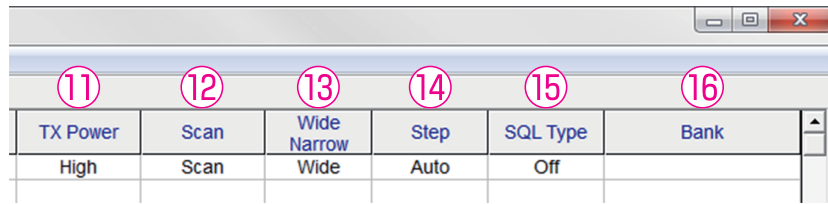
⑨ DCS Encode

To set the DCS code on transmitting.

⑩ Channel Name

Enter the desired memory name (up to 8 digits).

Setting the Items



| | | | | | |
|----------|------|----------------|------|----------|------|
| ⑪ | ⑫ | ⑬ | ⑭ | ⑮ | ⑯ |
| TX Power | Scan | Wide Narrow | Step | SQL Type | Bank |
| High | Scan | Wide | Auto | Off | |

⑪ TX Power

This item selects the TX Power.

⑫ Scan

Select the scanning condition for receiving channels.

- Scan
Performs scanning according to the set mode basic setting - SCAN RESUME.
- Skip
Skips the designated memory channels during scanning.

⑬ Wide Narrow

This item selects wide/narrow bandwidth on the FM mode.

- Wide
Normal transmission modulation level (± 5 kHz).
- Narrow
The level is half of the normal transmit modulation level (± 2.5 kHz).

⑭ Step

Sets the channel step for receiving channels. Normally, when a frequency is entered, the optimal channel step will be automatically set according to the frequency.

⑮ SQL Type

This item selects the Tone Encoder and/or Decoder mode.

⑯ Bank

A combination of up to 200 memory channels and preset memory channels can be registered to each of Bank 1 to Bank 10. In the column of each channel, tick the check box of the BANK to register the desired channel.

When recalling a bank, only channels registered to the bank will be recalled.

Troubleshooting

FT-4XR/XE/VR/VE cannot receive or transmit data to the computer. The Data transfer does not start.

- Verify that the programming cable is correctly connected to the transceiver data port and to the Computer.
- The battery of the transceiver may be depleted.
Charge the battery or replace the battery with the new one.
- Is the computer COM Port setting correct?
Set the COM Port correctly.

The data transmission has stopped before completion.

- Disconnecting the connection cable or poor contact of the connection cable.
Confirm the cable connection and try again.
- The battery of the transceiver may be depleted.
Charge the battery or replace the battery with the new one.



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