YAESU
The radio

PCC-3000

REFERENCE BOOK

The PCC-3000 allows you to quickly and easily operate the Yaesu FT DX 3000 HF/50 MHz Transceiver from your personal computer.

IMPORTANT NOTE

By using this software, you acknowledge that the Software is not intended for use in connection with any high risk of personal injury or strict liability activity (including, without limitation to, air travel, space travel, fire fighting, police operations, power plant operation, military operations, rescue operations, hospital and medical operations) and that YAESU makes no warranty and shall have no liability in connection with any use of the Software in such situations.

YAESU expressly disclaims any warranty for the Software and Services. The Software and Services and any related documentation are provided “AS IS” without warranty of any kind, either express or implied, including, without limitation, the implied warranties or merchantability, fitness for a particular purpose, security, or noninfringement. The entire risk arising out of use or performance of the Software and the Services remains with you.

YAESU MUSEN CO., LTD.

PCC-3000 Reference Book

TABLE OF CONTENTS

The PCC-3000 Operation Manual only indicates the operation mode. Refer to the FT DX 3000 Operation Manual for a detailed explanation of each function.

PCC-3000 System Components

- ❒ IBM® PC/compatible computer with Microsoft® Windows® XP, Vista or Windows® 7
- ❒ 30 MB of available Hard Disk space
- ❒ 256 MB or more RAM
- ❒ USB port or RS-232C port
- ❒ 1024 x 768 color display with 256-bit color support on the video card

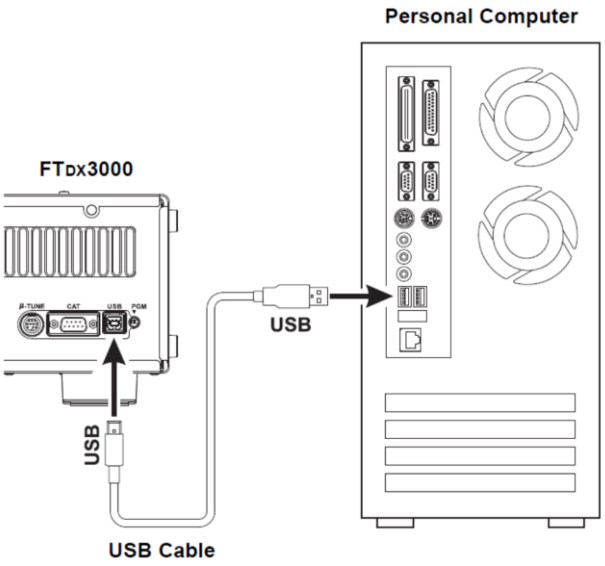
FT DX 3000 and Computer Interconnections

USB Cable

Installing the virtual COM port driver software on a computer makes possible CAT communication via a USB cable to the FT DX 3000 series transceiver. This will allow computer control with the PCC-3000 software, and updating the FT DX 3000 firmware.

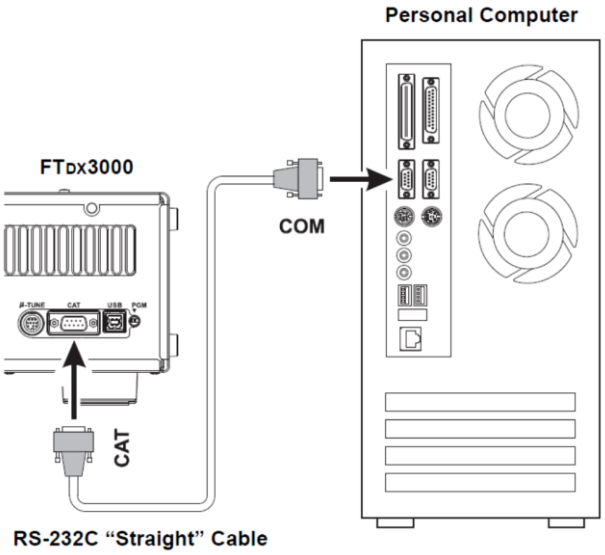
http://www.yaesu.com/indexVS.cfm?cmd=DisplayProducts&ProdCatID=102&encProdID=721B3F7D596827E0B37BD528EE1A56F1&DivisionID=65&isArchived=0

Caution: Do not connect the transceiver to the computer via the USB cable until the virtual COM port driver installation process has been completed. Connecting the transceiver to the computer via the USB cable before the driver installation has been completed may result in the wrong driver being selected, preventing proper operation.



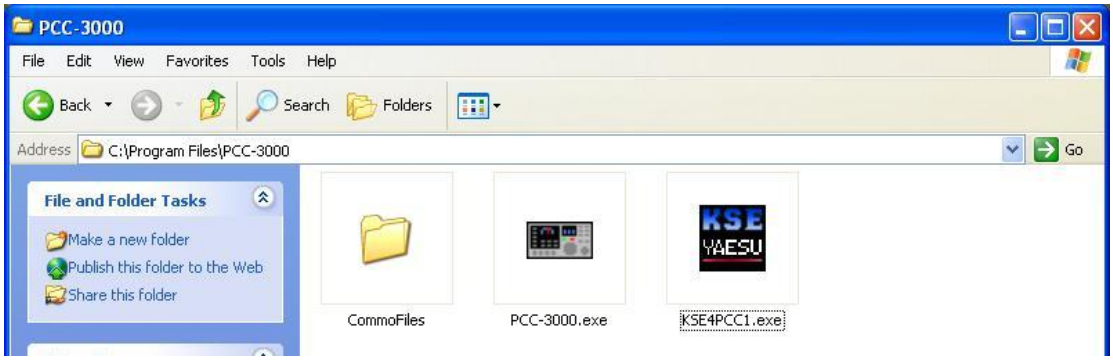
RS-232C（Serial）cable

As the illustration shows, RS-232C communication may be done by using an RS-232C straight cable connection between the COM port on your Personal computer and the CAT terminal on the rear panel of FT DX 3000. Set the menu mode "037 CAT SELECT" to "RS232C" on FT DX 3000.



Installation of the PCC-3000

Copy the PCC-3000 folder to the C drive of the hard disk.
The common files folder, the PCC-3000.exe file and the KSE4PCC1.exe file exist are contained in the PCC-3000 folder.



Uninstallation of the PCC-3000

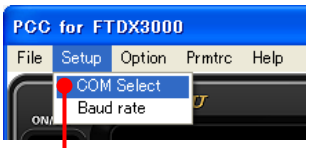
Move the folder of the PCC-3000 folder to the trash box.

COM Port Select

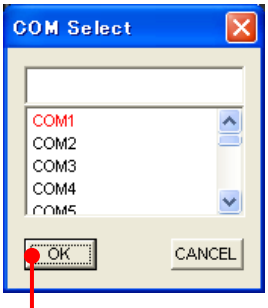
COM port setting is required when using either a USB cable or an RS-232C cable.

1. On the Personnel Computer PCC for FT DX 3000 “Setup” menu, Click the left mouse button on the “COM Select” parameter.
2. Click the left mouse button on the communication port that is connected to the FT DX 3000 with RS-232C cable.
3. Click the left mouse button on the [OK] button to save the new setting and close the “COM Select” window.

❒ Two virtual COM port appears when the USB cable is connected. Choose "Enhanced COM Port" the indicated COM number. Choose a system in the Control Panel as shown in the chart below. Open the device manager, and, confirm the COM port number.

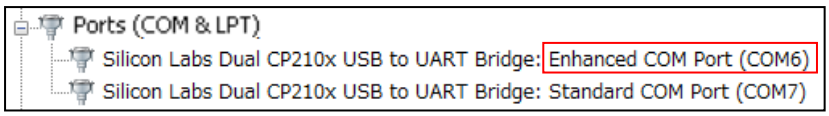


“COM Select” parameter



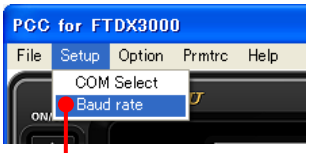
[OK] button

Windows Device Manager displayed “COM port（Example COM6)”.

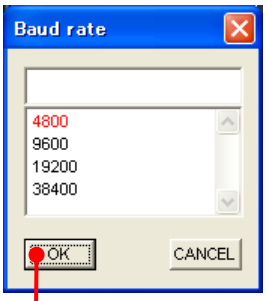


BAUD RATE SETUP

1. Click the left mouse button on the menu [Setup] button, the [Baud rate] pop-up window will be opened.
2. Select [Baud rate], and click the [OK] button on the left mouse button, then close the window. Default [Baud rate] is 4800 bps. You can select 9600/19200/38400 bps by using [↑], [↓] on the mouse or keyboard. We recommend 38400 bps. However, if the communication is unstable, please try to select another baud rate. If you update the Baud rate on the PCC-3000, the baud rate of the FT DX 3000 must be set as the same speed by Menu mode [038 CAT RATE]. Whenever you click the [CANCEL] button, the pop-up window will be closed without change.
3. Close the Controller window, and re-boot the PCC-3000 Controller.



"Baud rate" parameter

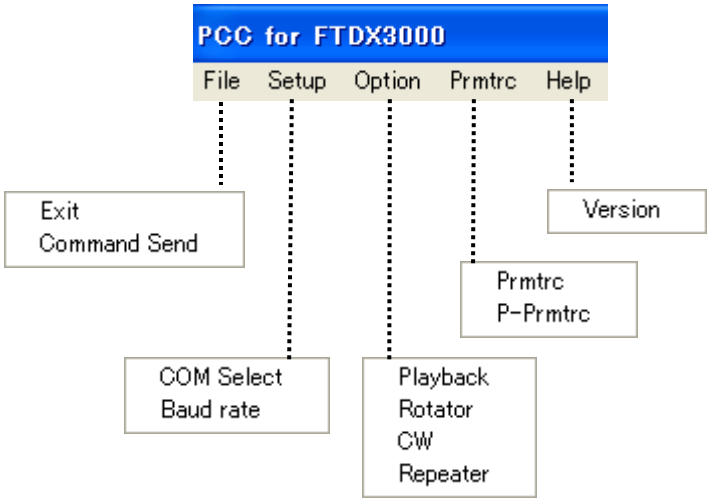


[OK] button

PCC-3000 CONTROLLER SCREEN

Upon opening the PCC-3000 program, the controller screen of PCC-3000 will be displayed on the PC screen.
In addition, the PCC-3000 Operation Manual only indicates the operation mode. Please refer to the FT DX 3000 Operation Manual of for a detailed explanation of each function.

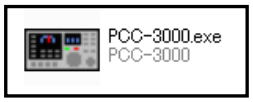
Note: The [SCOPE] button, [AUTO] button, [SELECT] button and [▲/▼/◀/▶] buttons are not available in the PCC-3000.



OPENING/CLOSING THE PCC-3000 CONTROLLER PROGRAM

OPENING THE PCC-3000 PROGRAM

Double click the left mouse button on the "PCC-3000" icon or file. The "YAESU" logo will appear for three seconds; afterwards the "PCC-3000" Personal Computer Controller Window will be opened.



"PCC-3000" icon

CLOSING THE PCC-3000 PROGRAM

To close the "PCC-3000" Personal Computer Controller:

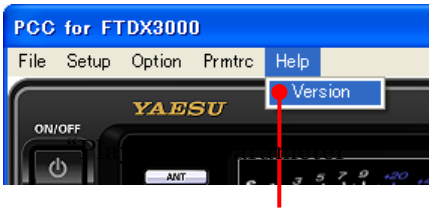
- ❒ Click the Close Button " " on the "PCC-3000" Personal Computer Controller Window.
- ❒ Alternately, click the "Exit" item in the "File" menu on the "PCC-3000" Personal Computer Controller Window.
- ❒ Or, press the [ESC] button on the keyboard.

"Exit" Parameter

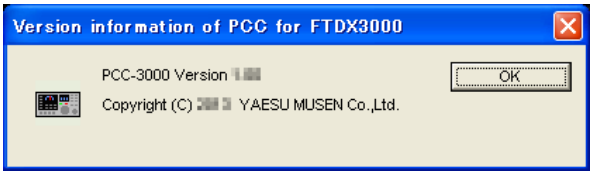
Close button

SOFTWARE VERSION CHECK

1. Click the left mouse button on the "Version" parameter in the "Help" menu on the "PCC-3000" Personal Computer Controller to open the "Version information" pop-up window.
2. Click the [OK] button to close the "Version information" pop-up window.



"Version" parameter



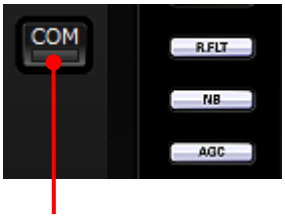
DATA CONNECTION

To enable computer control, click on the [COM] button in the "PCC-3000" Controller Window. The yellow indicator will glow.

To disable computer control, click on the [COM] button in the "PCC-3000" Controller Window again. The yellow indicator will go out.

Advice:

You may operate the [ON/OFF] button of the "PCC-3000" Personal Computer Controller, even if the yellow COM indicator turns off.



[COM] button

SWITCHING THE FT DX 3000 POWER ON/OFF

To turn the transceiver "On" or "Off", click on the [**ON/OFF**] button in the "PCC-3000" Controller Window.

[ON/OFF] button

AF GAIN CONTROL

To adjust the audio for a comfortable listening level, click on the [AF GAIN] knob (this turns the color of the "AF" image orange), then rotate the mouse scroll wheel or press the left/right buttons to adjust AF Gain.

[AF GAIN] knob (inner shaft)

RF GAIN CONTROL

When you set the "RF" gain (RF knob) in menu mode "036 RF/SQL VR", the RF/SQL dial knob (outside axis) works as the RF gain adjustment.
Click the left mouse button on the [RF GAIN] knob (the indication color of "RF" will turn orange), then turn the mouse scroll or press the left/right buttons to adjust the RF gain.

[RF/SQL] knob（outer shaft）

SQL LEVEL CONTROL

When you set the "SQL" (SQL knob) in menu mode "036 RF/SQL VR", the RF/SQL dial knob (outside axis) works as a squelch adjustment.
To adjust the squelch threshold level, click on the [SQL] knob (this turns the color of the "SQL" image orange). Then rotate the mouse scroll wheel, or press the left/right buttons to adjust SQL level.

[RF/SQL] knob（outer shaft）

FREQUENCY NAVIGATION ON VFO-A

[Main Tuning Dial] Knob

Bring the mouse cursor to the [Main Tuning Dial] knob, then roll the mouse scroll wheel to tune the VFO-A frequency.
Or, press and hold in the left mouse button on the edge of the [Main Tuning Dial] knob, then while holding in the left button the mouse, to tune the VFO-A frequency.
.

[Main Tuning Dial] knob

Direct Frequency Digit Set

1. Click the left mouse button on the frequency digit that you wish to change on the VFO-A frequency. The frequency digit will change to Orange.
2. Turn the mouse scroll wheel to tune the VFO-A frequency digit.
   Click the left mouse button to terminate the frequency change. The frequency digit will return to White.

Frequency Digit

Band Change

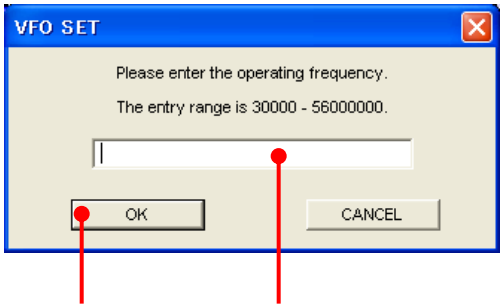
Click the left mouse button on the [BAND] button corresponding to the Amateur Band wish to operate.

[BAND] keys

Direct Keypad Frequency Entry

1. Click the left mouse button on the [ENT] key of the BAND keys. The "VFO SET" window will open.
2. Enter a frequency directly from the [BAND] keys or computer's keyboard. Available entry values are 30000 - 56000000.
3. Click the left mouse button on the [OK] button of the "VFO SET" window or press the computer's [ENTER] key to terminate the frequency entry.

[ENT] key



[OK] button "VFO SET" window

Use the [CLAR/VFO-B] knob to tune in 1 MHz /100 kHz

Click the left mouse button on the [MHz/μT]. Click and hold the left mouse button on the [CLAR/VFO-B] knob, and then rotate the mouse, to tune the frequency step as 1 MHz. To switch the tuning frequency step to 100 kHz, set the menu mode [158 1 MHz/100 kHz SELECT] to 100 kHz.

Advice:

Alternate presses of the [MHz/μT] button will switch the μ-Tune filter between on or off.

[CLAR/VFO-B] knob

[MHz/μT] button

FREQUENCY NAVIGATION ON VFO-B

[CLAR/VFO-B] knob

- Click the left mouse button on the [VFO-B/CLAR] button to enable the [CLAR/VFO-B] knob. The orange LED in the [VFO-B/CLAR] button is illuminated. Bring the mouse cursor to the [CLAR/VFO-B] knob, and then turn the mouse scroll to tune the VFO-B frequency.
- Click the left mouse button on the [VFO-B/CLAR] button to enable the [CLAR/VFO-B] knob. The orange LED in the [VFO-B/CLAR] button is illuminated. Press and hold in the left mouse button on the edge of the [CLAR/VFO-B] knob, and then while holding in the left mouse button rotate the mouse, to tune the VFO-B frequency.

[CLAR/VFO-B] knob

Direct Frequency Digit Set

1. Click the left mouse button o on the VFO-B frequency digit you wish to change. The frequency digit will change to Orange.
2. Turn the mouse scroll to tune the frequency digit wheel to change the VFO-B frequency digit.

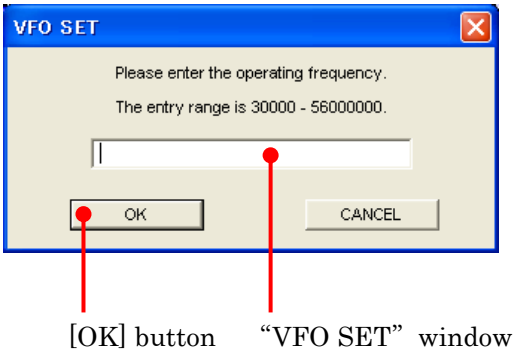
Frequency Digit

Band Change

Click the left mouse button on the VFO-B [RX] indicator button (the VFO-B [RX] indicator button will change to orange), then click the left mouse button on the [BAND] keys corresponding to the Amateur band on which you wish to operate.

Direct Keypad Frequency Entry

1. Click the left mouse button on the [B] button (the [B] button will change to Orange), then click the left mouse button on the [ENT] button of the [BAND] keys. The "VFO SET" window will open.
2. Enter a frequency directly by clicking the [BAND] keys or use the computer keypad. Available entry values are 30000 - 56000000 (30 kHz - 56 MHz).
3. Click the left mouse button on the [OK] button of the "VFO SET" window or press the computer's [ENTER] key to complete the frequency entry.



Use the [CLAR/VFO-B] knob to tune in 1 MHz /100 kHz

Click the left mouse button on the [MHz/μT]. Then click and hold the left mouse button on the [CLAR/VFO-B] knob; rotate the mouse, to tune the frequency in 1 MHz steps. If you want to switch the tuning frequency step to 100 kHz, set the menu mode [158 1 MHz/100 kHz SELECT] to 100 kHz.

Advice: Alternate presses of the [MHz/μT] button will switch the μ-Tune filter between on or off.

LOCK FEATURE

VFO-A LOCK

Click the left mouse button on the [LOCK] button to turn the [Main Tuning Dial] knob Lock "on" or "off". When the [Main Tuning Dial] knob is set to lock, the "LOCK" icon will appear in the display.

VFO-A "LOCK" icon

[Main Tuning Dial] knob "LOCK" button

VFO-B LOCK

Click the left mouse button on the [VFO-B/CLAR] button (the inside of the button glows Orange), then Click the left mouse button on the [TX CLAR/LOCK] button to turn the [CLAR/VFO-B] knob Lock "on" or "off". When the [CLAR/VFO-B] knob is set to lock the "LOCK" icon will appear in the display.

VFO-B [LOCK] button

[CLAR/VFO-B] knob "LOCK" icon

MODE SWITCH

- ❒ Click the left mouse button on the [MODE] button to open the "MODE" pop-up window, then select the operating mode for VFO-A.
- ❒ Click the left mouse button on to When [B] button, and then click the left mouse button to open the "MODE" pop-up window. Select the operating mode for VFO-B.

[MODE] button

VFO-B [RX] indicator button

CLARIFIER OPERATION

When you change the clarifier frequency, be sure to confirm that the indicators on the [MHz/μT], [CLAR/VFO-B], and [MCH/GRP] buttons have disappeared.

RX CLAR BUTTON

Click the left mouse button on the [RX CLAR] button (the "CLAR RX" icon will appear in the display).

Click the left mouse button on the [RX CLAR] button to turn the RX Clarifier on or off.

TX CLAR BUTTON

Click the left mouse button on the [TX CLAR] button (the "CLAR TX " icon will appear in the display.).

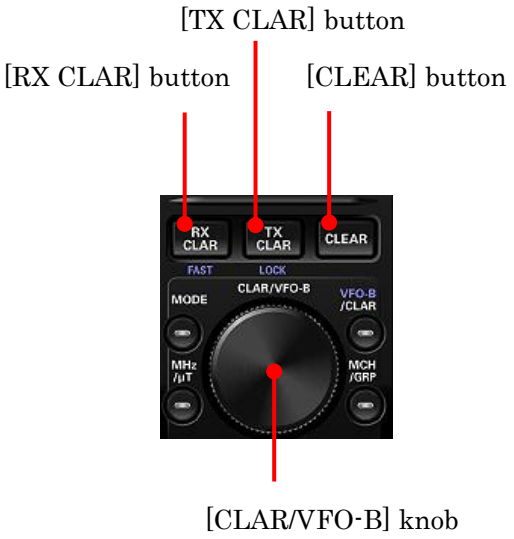
Click the left mouse button on the [TX CLAR] button to turn the TX Clarifier on and off.

CLEAR BUTTON

Click the left mouse button on the [CLEAR] button to clear the Clarifier offset frequency (thereby setting the offset to "Zero").

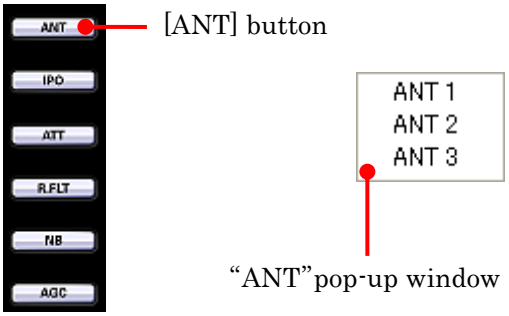
[CLAR/VFO-B] KNOB

Click the left mouse button on the [CLAR/VFO-B] knob, then turn the mouse scroll to tune the Clarifier offset frequency.
Press and hold in the left mouse button on the edge of the [CLAR/VFO-B] knob, then, while holding in the left mouse button, rotate the mouse to tune the Clarifier offset frequency.



ANTENNA SELECTION

Click the left mouse button on the [ANT] button to open the "ANT" pop-up window, and then select the antenna on which you wish to operate.
"ANT" setting status is displayed to block diagram display.



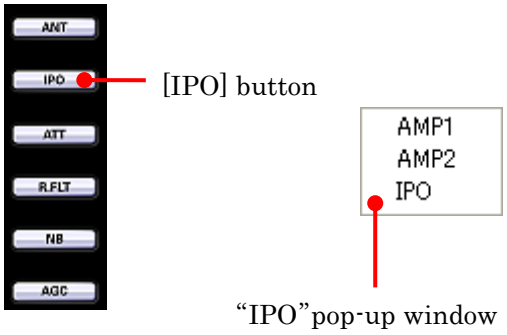
IPO (Intercept Point Optimization)

Click the left mouse button on the [IPO] button to open the "IPO" pop-up window, and then select the front-end system you wish to use (AMP1, AMP2, and IPO).
The "IPO" setting status is shown in the block diagram display.

AMP1: The most used setting connects only one RF amplifier stage and considers both sensitivity and the receiver amplifier characteristics.
(Gain: approx. 10 dB).

AMP2: Operates by connecting two RF amplifiers in series when sensitivity and gain in the higher bands is considered important.
(Total gain: approx. 17 dB)

IPO: The RF receiver characteristics are substantially improved by feeding a signal level to the mixer for the best possible IP performance.



ATT (Attenuator)

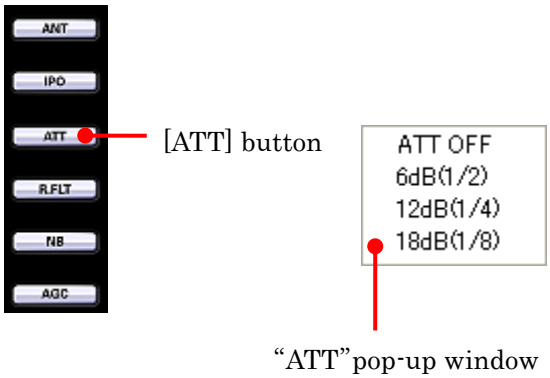
Click the left mouse button on the [ATT] button to open the "ATT" pop-up window, and then select the attenuation level you wish to utilize.
The "ATT" setting status is shown in the block diagram display.

OFF: Attenuator is off

6dB: The incoming signal power is reduced by 6 dB (Signal voltage reduced by 1/2)

12dB: The incoming signal power is reduced by 12 dB (Signal voltage reduced to 1/4)

18dB: The incoming signal power is reduced by 18 dB (Signal voltage reduced to 1/8)

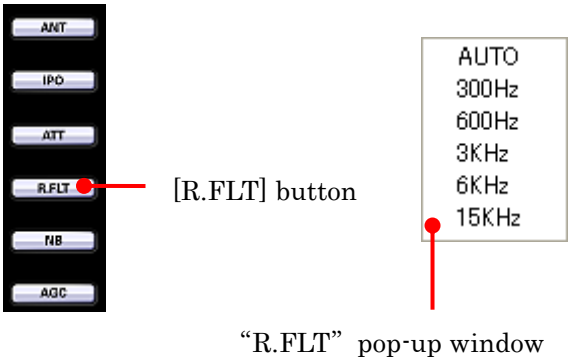


ROOFING FILTER SELECTION

Click the left mouse button on the [R.FLT] button to open the "Roofing Filter" pop-up window, and then select the bandwidth you wish to utilize (AUTO, 300Hz, 600Hz, 3kHz, 6kHz, and 15kHz).
The "R.FIT" setting status is shown in the block diagram display.

Advice:

If the optional XF-127CN (300Hz CW narrow filter) is not installed, you can not switch to "300Hz" even if you select "300Hz".



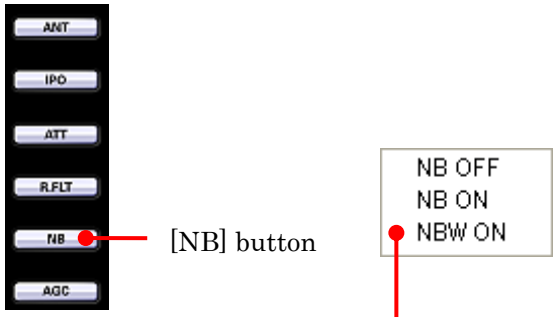
NOISE BLANKER OPERATION

Click the left mouse button on the [NB] button to open the "NB" pop-up window, then select the configuration you wish to use.
The "NB" setting status is shown in the block diagram display.

NB OFF: Turns the Noise Blanker off.
NB ON: Turns the Noise Blanker on (for short-duration pulses).
NB-W ON: Turns the Noise Blanker on (for longer-duration pulses).

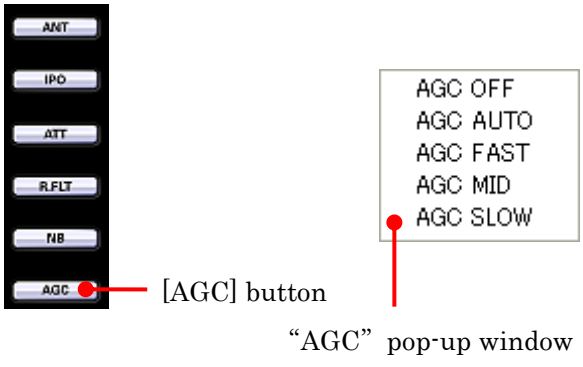
Advice:

- The NB Noise blanker level of NB which is effective against "pulse noise" can be adjusted by menu mode "033 NB LEVEL".
- The Noise blanker level of NB-W can not be adjusted.



AGC

Click the left mouse button on the [AGC] button to open the "AGC" pop-up window, then select the desired receiver-recovery time.
The "AGC" status is indicated in the block diagram display. When a setting other than AUTO is selected, it is indicated by a green letter.
When the setting is AUTO, it is indicated by a light blue letter.



μ-TUNE

Requires optional RF μ-Tuning Kit.

1. Click the left mouse button on the [**MHz/μT**] button to open the "**MHz/μ-T**" pop-up window, and then select the "**μTUNE ON/OFF**". When the CW Break-in circuit is set to on, the red LED in the [**MHz/μT**] button is illuminated.
2. Press and hold in the left mouse button on the edge of the [**CLAR/VFO-B**] knob, then while holding in the left mouse button rotate the mouse to move the passband of the μ-tune.
3. Click the left mouse button on the [**CLEAR**] button to move the passband of the μ-TUNE filter to the center of the current Amateur band.

IF SHIFT OPERATION

1. Click the left mouse button on the edge of the [SHIFT] knob (the indication color of "SHIFT" will turn orange), then turn the mouse scroll wheel or press the left/right buttons to move the filter passband.
2. Or, press and hold in the left mouse button on the edge of the [SHIFT] knob, and then rotate the mouse to move the filter passband.

[SHIFT] knob（inner shaft）

[SHIFT] characteristic

IF WIDTH OPERATION

1. Click the left mouse button on the edge of the [WIDTH] knob (the indication color of "WIDTH" will turn orange), then turn the mouse scroll wheel or press the left/right buttons to adjust the filter bandwidth.
2. Or, press and hold in the left mouse button on the edge of the [WIDTH] knob, and then rotate the mouse to adjust the filter bandwidth.

[WIDTH] knob（outer shaft）

[WIDTH] characteristic

NAR (ONE-TOUCH NARROW IF FILTER SELECTION)

1. Click the left mouse button on the [NAR] button to engage the preset "Narrow" IF filter selection. When the narrow bandwidth is engaged, the "NAR" indication will appear in the display.
2. Click the left mouse button on the [NAR] button again; the bandwidth will revert to that set by the [WIDTH] knob.

[NAR] button

DIGITAL NOISE REDUCTION (DNR) OPERATION

1. Click the left mouse button on the [DNR] button to turn the Digital Noise Reduction system on or off. When the Digital Noise Reduction system is set to on, the "DNR" icon will appear in the display.
2. Select the DNR parameter level via Menu items "110 DNR LEVEL".
3. To disable the Digital Noise Reduction operation, click the left mouse button on the [DNR] button again.

[DNR] button

AUTO NOTCH (DNF) OPERATION

1. Click the left mouse button on the [DNF] button to turn the Digital Notch Filter on or off. When the Digital Notch Filter is set to on, the "DNF" icon will appear in the display.
2. To disable the Digital Notch Filter operation, click the left mouse button on the [DNF] button again.

[DNF] button

NOTCH OPERATION

- ❒ Click the left mouse button on the [NOTCH] button to turn the Notch filter on or off. When the Notch filter is set to on, the Notch characteristic will appear in the display.
- ❒ Click the left mouse button on the edge of the [NOTCH] knob (the indication color of "NOTCH" will turn orange), then turn the mouse scroll wheel or press the left/right buttons to adjust the center frequency of the IF Notch filter.

3. Or, press and hold in the left mouse button on the edge of the [NOTCH] knob, and then rotate the mouse to adjust the center frequency of the IF Notch filter.
4. To disable the Notch operation, click the left mouse button on the [NOTCH] button again.

Advice:

You can choose the notch NARROW or WIDE band (width) properties using menu mode "111 IF NOTCH WIDTH".

[NOTCH] button

[NOTCH] knob（inner shaft）

[NOTCH] characteristic

CONTOUR/APF OPERATION

1. Click the left mouse button on the [CONT/APF] button to turn the Contour filter "on" or "off". The Contour filter characteristic will appear in the display. When the Contour filter is set to "on", inside of the [CONT/APF] button glows orange.
2. Click the left mouse button on the edge of the [CONT/APF] knob, and then turn the mouse scroll to adjust the center frequency of the Contour filter.
3. Or, press and hold in the left mouse button on the edge of the [CONT/APF] knob, and then rotate the mouse to adjust the center frequency of the Contour filter.
4. To disable the CONTOUR operation, click the left mouse button on the [CONT/APF] button again.

[CONT/APF] button

[CONT/APF] knob (outer shaft)

[CONTOUR] characteristic

Advice:

Adjust the Contour filter level and bandwidth via Menu items "108 CONTOUR LEVEL" and "109 CONTOUR WIDTH".

In the CW operating mode, the APF (Audio Peak Filter) feature may be activated by clicking the [CONT/APF] button. The CW APF provides a very narrow audio peak bandwidth. You may adjust the peak frequency using the same method as the CONTOUR operation.

MIC GAIN

The [MIC/SPEED] knob will function as the adjustment for the Microphone gain level in the LSB, USB, AM, FM and DATA modes.

Click the left mouse button on the [MIC/SPEED] knob (the indication color of "MIC" will turn orange), then turn the mouse scroll wheel, or press and hold in the left/right buttons to select the Microphone gain level.

[MIC/SPEED] knob (inner shaft)

MOX

Click the left mouse button on the [MOX] button to engage transmission. When the MOX circuit is set to on, the inside of the button glows red.

[MOX] button

"TX" indicator

VOX OPERATION

Click the left mouse button on the [VOX] button to turn the VOX circuit on or off.

Advice: Adjust the VOX gain level and VOX delay time via Menu items "181 VOX GAIN" and "182 VOX DELAY".

[VOX] button

USING THE SPEECH PROCESSOR

1. Click the left mouse button on the [PROC] button to turn the Speech Processor circuit on or off.
2. Click the left mouse button on the [PROC/CAR] knob (the indication color of "PROC" will turn orange), then turn the mouse scroll wheel, or press the left/right buttons to select the Compression level.
3. Or, press and hold in the left mouse button on the edge of the [PROC/CAR] knob, and then rotate the mouse to adjust the Compression level.
4. To disable the Speech Processor operation, click the left mouse button on the [PROC] button again.

[PROC] button

[PROC/CAR] knob (outer shaft)

CARRIER POWER

This knob adjusts the RF Power (Carrier) output of the transceiver. For the SSB mode, set the desired maximum RF Power output via Menu item "177 TX MAX POWER"

Click the left mouse button on the [PROC/CAR] knob (the indication color of "CAR" will turn orange), then turn the mouse scroll or press and hold in the left/right buttons to select the carrier power level.

[PROC/CAR] knob（outer shaft）

Advice:

TX MAX POWER can be adjusted by menu mode "177 TX MAX POWER"

ANTENNA TUNER OPERATION

Click the left mouse button on the [TUNE] button to open the "TUNER" pop-up window, and then select the configuration you wish to use.

TUNER OFF: Turns the Automatic Antenna Tuner off.

TUNER ON: Turns the Automatic Antenna Tuner on.

TUNING: Turns the Automatic Antenna Tuner on, and begins the automatic tuning process.

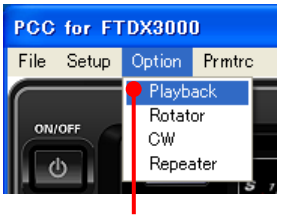
[TUNE] button

VOICE MEMORY FEATURE

Requires optional DVS-6 Voice Memory Unit.

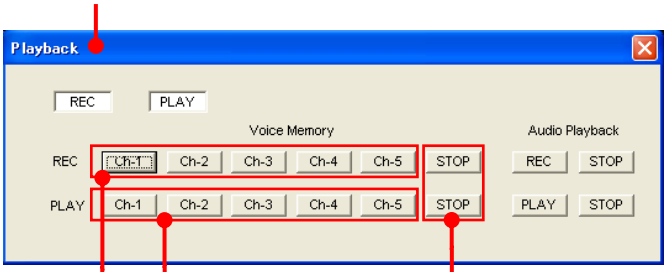
RECORDING

1. Select the LSB, USB, AM, or FM mode using the [MODE] button.
2. Click the left mouse button on the "Playback" parameter in the "Option" menu on the "PCC-3000" Personal Computer Controller to open the "Playback" pop-up window.
3. Click the left mouse button on the desired Memory Channel button (REC [Ch-1] ~ REC [Ch-5]) for the Voice Memory feature to initiate recording.
4. Click the left mouse button on the [STOP] button for the Voice Memory feature to stop recording.



"Playback" parameter

"Playback" pop-up window



[STOP] button

[PLAY] button (Ch-1 ～ Ch-5)

[REC] button (Ch-1 ～ Ch-5)

PLAYBACK

1. Click the left mouse button on the [BK-IN] button. The"BK-IN" icon will not appear in the display.
2. Click the left mouse button on the "Playback" parameter in the "Option" menu on the "PCC-3000" Personal Computer Controller to open the "Playback" pop-up window.
3. Click the left mouse button on the desired Memory Channel button (PLAY [Ch-1] ~ PLAY [Ch-5]) for the Voice Memory feature to begin playback of the recorded audio.
4. Click the left mouse button on the [STOP] button for the Voice Memory feature to stop the playback.

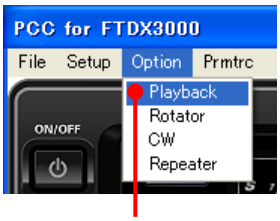
TRANSMITTING

1. Click the left mouse button on the [BK-IN] button. The "BK-IN" icon will appear in the display.
2. Click the left mouse button on the "Playback" parameter in the "Option" menu on the "PCC-3000" Personal Computer Controller to open the "Playback" pop-up window.
3. Click the left mouse button on the desired Memory Channel button (PLAY [Ch-1] ~ PLAY [Ch-5]) for the Voice Memory feature to begin transmitting of the recorded audio.
4. Click the left mouse button on the [STOP] button for the Voice Memory feature to stop the transmitting.

AUDIO PLAYBACK FEATURE

RECORDING

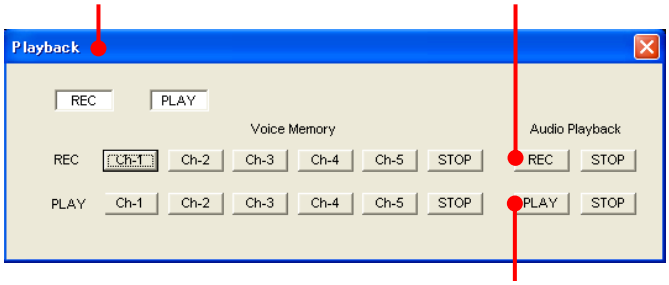
1. Click the left mouse button on the “Playback” parameter in the “Option” menu on the “PCC-3000” Personal Computer Controller to open the “Playback” pop-up window.
2. Click the left mouse button on the [REC] button of the Audio Playback feature to initiate recording.
3. Click the left mouse button on the [STOP] button of the Audio Playback feature to stop recording.



“Playback” parameter

“Playback” pop-up window

[REC] button



[PLAY] button

PLAYBACK

1. Click the left mouse button on the “Playback” parameter in the “Option” menu on the “PCC-3000” Personal Computer Controller to open the “Playback” pop-up window.
2. Click the left mouse button on the [PLAY] button of the Audio Playback feature to begin playback of the recorded audio.
3. Click the left mouse button on the [STOP] button of the Audio Playback feature to stop the playback.

Advice:

When FT DX 3000 is turned off, the contents of recording will be erased.

USING THE MONITOR

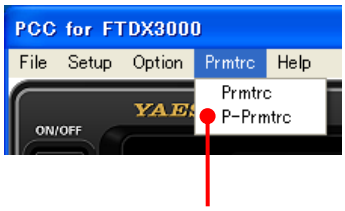
1. Click the left mouse button on the [MONI] button to turn the Monitor circuit on and off. When the Monitor is set to on, inside of the [MONI] button glows orange.
2. Click the left mouse button on the [MONI] knob (the indication color of “MONI” will turn yellow), then turn the mouse scroll or press the left/right buttons to adjust the Monitor level.

[MONI] button

PARAMETRIC MICROPHONE EQUALIZER ADJUSTMENT

Click the left mouse button on the "Prmtrc" menu on the "PCC-3000" Personal Computer Controller to open the "Parametric" pop-up window, and then select the configuration you wish to use.
Prmtric: Adjusts the characteristic of the Parametric Microphone Equalizer when the Speech Processor is disabled.
P-Prmtric: Adjusts the characteristic of the Parametric Microphone Equalizer when the Speech Processor is enabled.

1. Click the left mouse button on the "Prmtrc" or "P-Prmtrc" menu to open the "Parametric Microphone Equalizer Graph" window on the monitor.
2. Adjust the characteristics of the Parametric Microphone Equalizer using each arrow switch. You may observe the characteristic settings of the Parametric Microphone Equalizer on the monitor.
   - ❍ Red Curve: Displays the characteristic of the lower range for the parametric microphone equalizer.
   - ❍ Blue Curve: Displays the characteristic of the middle range for the parametric microphone equalizer.
   - ❍ Green Curve: Displays the characteristic of the high range for the parametric microphone equalizer.
   - ❍ Black Curve: Displays the characteristic of the overall range for the parametric microphone equalizer.

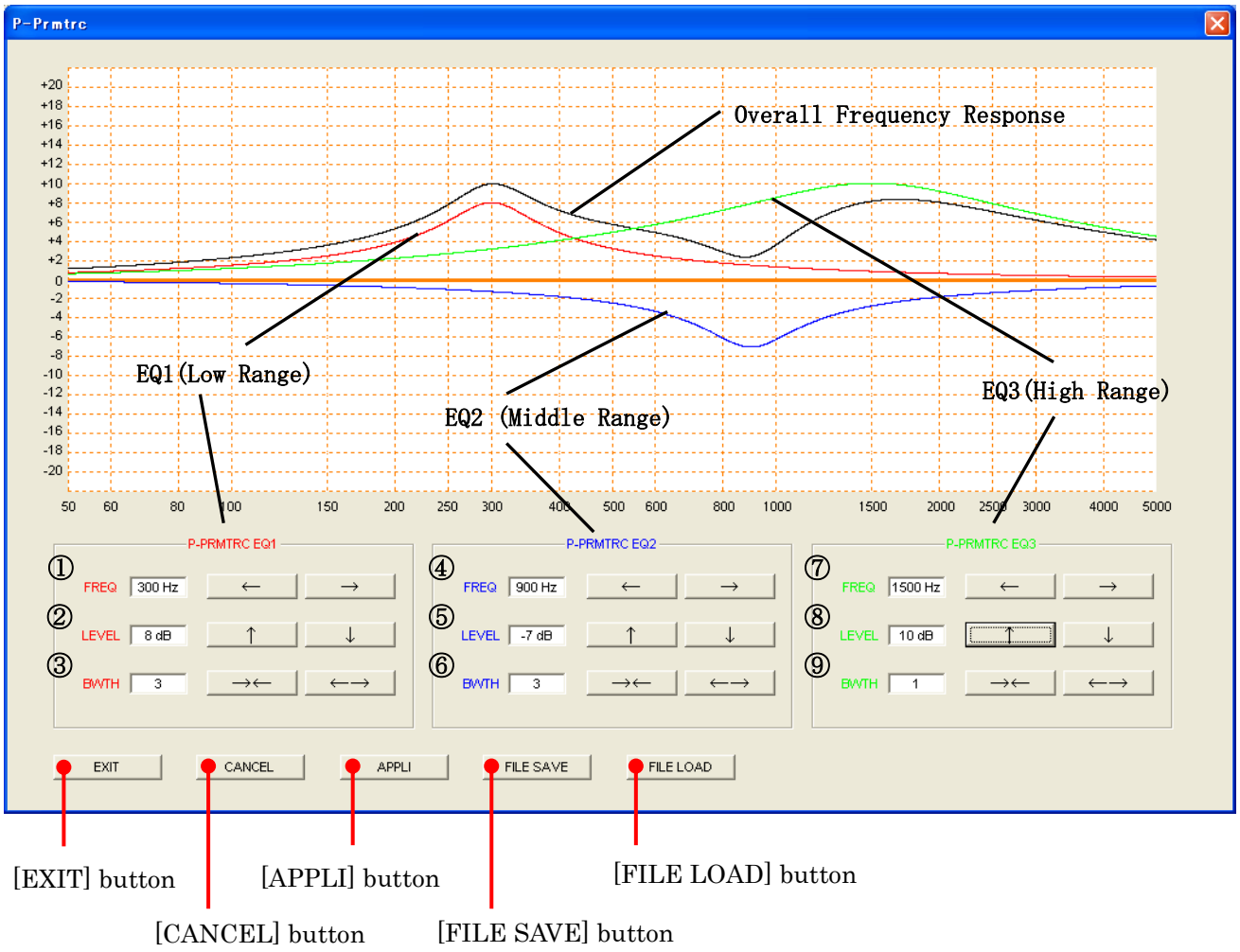


"Prmtrc" pull-down menu

[MONI] button

[MIC EQ] button

[PROC] button



① **PRMTRC EQ1 (P-PRMTRC EQ1) FREQ**
Click the left mouse button on the [←]/[→] button to select the center frequency of the lower range for the parametric microphone equalizer.
Available selections are 100 ~ 700 Hz (100 Hz/step) or OFF.

② **PRMTRC EQ1 (P-PRMTRC EQ1) LEVEL**
Click the left mouse button on the [↑]/[↓] button to adjust the equalizer gain of the low range of the parametric microphone equalizer.
Available selections are –20 dB ~ +10 dB.

③ **PRMTRC EQ1 (P-PRMTRC EQ1) BWTH**
Click the left mouse button on the [→←]/[←→] button to adjust the Q-factor of the low range of the parametric microphone equalizer.
Available selections are 1 ~ 10.

④ **PRMTRC EQ2 (P-PRMTRC EQ2) FREQ**
Click the left mouse button on the [←]/[→] button to select the center frequency of the middle range for the parametric microphone equalizer.
Available selections are 700 ~ 1500 Hz (100 Hz/step) or OFF.

⑤ **PRMTRC EQ2 (P-PRMTRC EQ2) LEVEL**
Click the left mouse button on the [↑]/[↓] button to adjust the equalizer gain of the middle range of the parametric microphone equalizer.
Available selections are –20 dB ~ +10 dB.

⑥ **PRMTRC EQ2 (P-PRMTRC EQ2) BWTH**
Click the left mouse button on the [→←]/[←→] button to adjust the Q-factor of the middle range of the parametric microphone equalizer.
Available selections are 1 ~ 10.

⑦ **PRMTRC EQ3 (P-PRMTRC EQ3) FREQ**
Click the left mouse button on the [←]/[→] button to select the center frequency of the high range for the parametric microphone equalizer.
Available selections are 1500 ~ 3200 Hz (100 Hz/step) or OFF.

⑧ **PRMTRC EQ3 (P-PRMTRC EQ3) LEVEL**
Click the left mouse button on the [↑]/[↓] button to adjust the equalizer gain of the high range of the parametric microphone equalizer.
Available selections are –20 dB ~ +10 dB.

⑨ **PRMTRC EQ3 (P-PRMTRC EQ3) BWTH**
Click the left mouse button on the [→←]/[←→] button to adjust the Q-factor of the high range of the parametric microphone equalizer.
Available selections are 1 ~ 10.

ELECTRONIC KEYER OPERATION

4. Click the left mouse button on the [KEYER] button to turn the CW Keyer on or off.
5. Click the left mouse button on the [MIC/SPEED] knob (the indication color of "SPEED" will turn orange), then turn the mouse scroll or press the left/right buttons to set the desired keying speed.
6. Click the left mouse button on the [BK-IN] button to turn the CW Break-in circuit on and off. When the CW Break-in circuit is set to on, the orange LED in the [BK-IN] button is illuminated.

[KEYER] button

[MIC/SPEED] knob (inner shaft)

[BK-IN] button

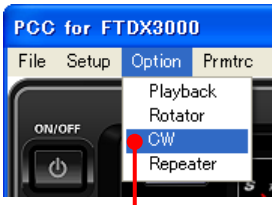
Advice:

- CW PITCH can be adjusted by menu mode "054 CW PITCH"
- CW BK-IN DELAY can be adjusted by menu mode "061 CW BK-IN DELAY"

CONTEST MEMORY KEYER

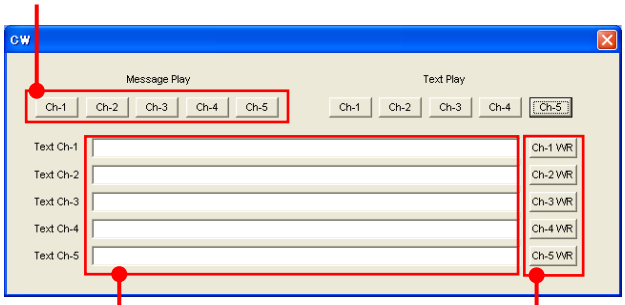
TEXT MEMORY STORAGE

1. Click the left mouse button on the "CW" parameter in the "Option" menu on the "PCC-3000" Personal Computer Controller to open the "CW" pop-up window.
2. Click the left mouse button on the desired Text Memory Channel ("Text Ch-1" ~ "Text Ch-5"), then enter the message from the computer keyboard. Remember to add the "}" character at the end to signify the termination of the message.
3. Click the left mouse button on the [Ch-n WR] button to save the message.



"CW" parameter

Message Play buttons



Text Memory Channel

[Ch-n WR] button (Text Memory)

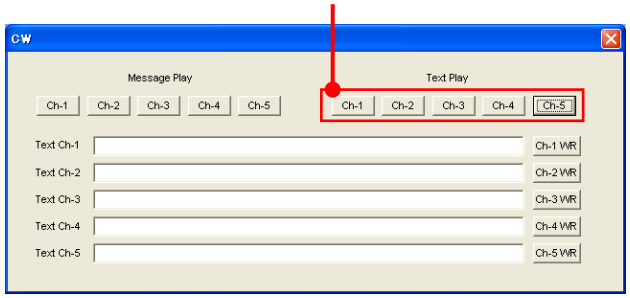
PLAYBACK

1. Click the left mouse button on the [MONI] button to turn "on", the inside of the [MONI] button glows orange.
2. Click the left mouse button on the [BK-IN] button to turn "off" the Monitor function. The "BK-IN" icon will disappear from the display.
3. Click the left mouse button on the "CW" parameter in the "Option" menu on the "PCC-3000" Personal Computer Controller to open the "CW" pop-up window.
4. Click the left mouse button on the desired Memory Channel button (Message Play [Ch-1] ~ Message Play [Ch-5] or Text Play [Ch-1] ~ Text Play [Ch-5]) to begin playback of the saved message.

[BK-IN] button

[MONI] button

Text Play buttons



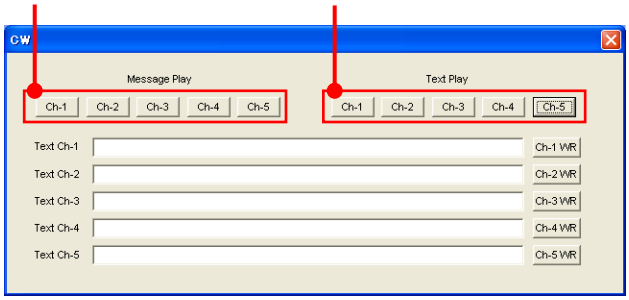
TRANSMITTING

1. Click the left mouse button on the [BK-IN] button to turn TX "on", the inside of the [BK-IN] button glows orange.
2. Click the left mouse button on the "CW" parameter in the "Option" menu on the "PCC-3000" Personal Computer Controller to open the "CW" pop-up window.
3. Click the left mouse button on the desired Memory Channel button (Message Play [Ch-1] ~ Message Play [Ch-5] or Text Play [Ch-1] ~ Text Play [Ch-5]) to begin transmitting the saved message.

[BK-IN] button

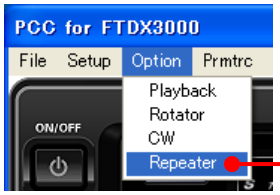
Message Play buttons

Text Play button

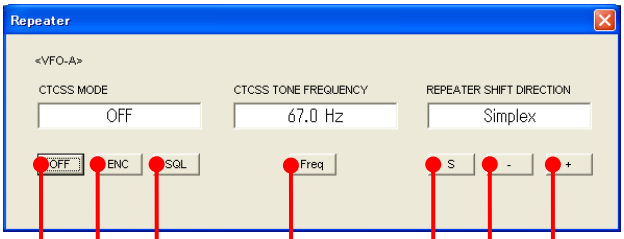


REPEATER OPERATION

1. Click the left mouse button on the "Repeater" parameter in the "Option" menu on the "PCC-3000" Personal Computer Controller to open the "Repeater" pop-up window.
2. Click the left mouse button on the [ENC], [SQL], or [OFF] button to select the desired CTCSS mode.
3. Click the left mouse button on the "Freq" button to open the "CTCSS Tone Frequency" pop-up window, and then select the desired tone frequency.
4. Click the [OK] button to close the "CTCSS Tone Frequency" pop-up window.
5. Click the left mouse button on the [S], [–], or [+] button to select the desired Repeater Shift Direction.
6. Click the left mouse button on the Close Button " " on the "Repeater" pop-up window to save the new setting and close the "Repeater" pop-up window.



"Repeater" Parameter



[Freq] button

[SQL] button

[S] button

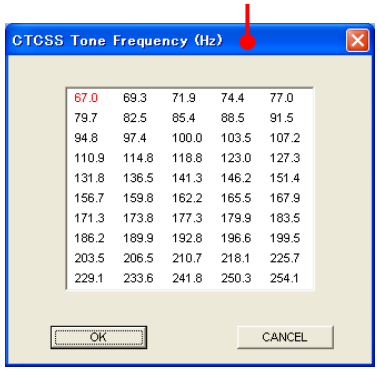
[ENC] button

[+] button

[OFF] button

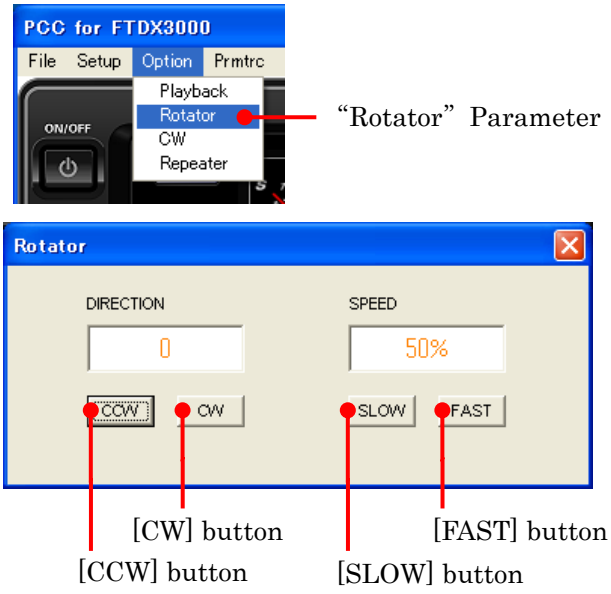
[−] button

"CTCSS Tone Frequency" window



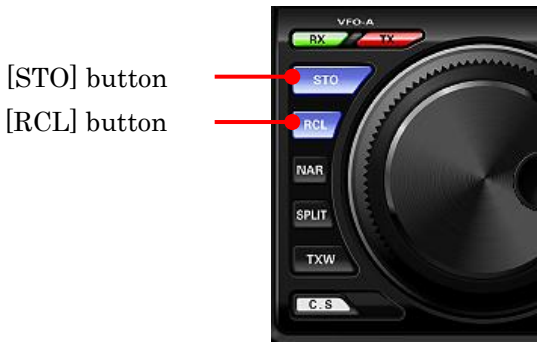
ROTATOR CONTROL

1. Click the left mouse button on the "Rotator" parameter in the "Option" menu on the "PCC-3000" Personal Computer Controller to open the "Rotator" pop-up window.
2. Click the left mouse button on the [CCW] or [CW] button to rotate the antenna.
3. Click the left mouse button on the [SLOW] or [FAST] button to adjust the rotation speed.



QMB MEMORY

- Click the left mouse button on the [STO] button to write the current main band (VFO-A) data to the QMB memory.
- Click the left mouse button on the [RCL] button to recall the QMB memory.

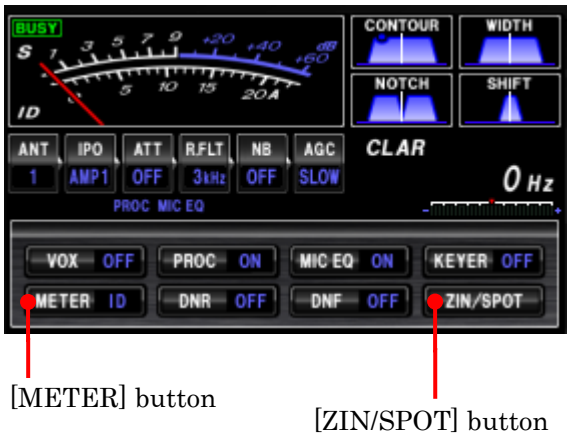


OPERATION OF MISCELLANEOUS BUTTONS

[METER] Button

Click the left mouse button on the [METER] button to select meter functions in the transmit mode as follows:

PO ➠ ALC ➠ SWR ➠ COMP ➠
➠ ID ➠ VDD ➠ PO ……



[ZIN/SPOT] Button

・CW AUTO ZERO-IN Function
Click the left mouse button on the [ZIN/SPOT] button to adjust the receiving frequency to zero-in automatically while receiving the CW signal.

・CW SPOT (Zero-beat) Function
The Spot tone will be heard through the PC speaker while holding in the left mouse button on the [ZIN/SPOT] button. This tone corresponds to the pitch of your transmitted signal. If you adjust the receiver frequency until the pitch of the received CW signal matches that of the Spot tone, your transmitted signal will be precisely matched to that of the other station. Release the left mouse button to turn the Spot tone off.

[SPLIT] Button

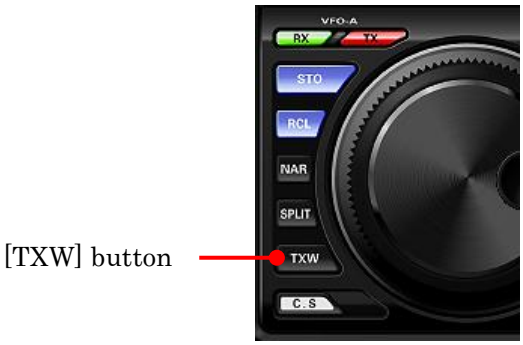
Click the left mouse button on the [SPLIT] button to open the "SPLIT" pop-up window, and then select the configuration you wish to use.

SPLIT: Activates the Split Frequency operation.
(The VFO-A register will be used for reception while the VFO-B register will be used for transmission).

QUICK SPLIT: Activates the Quick Split feature.
(The VFO-B register will automatically be set to a frequency 5 kHz higher than the VFO-A register with the same operating mode.)

[TXW] Button

Click the left mouse button on the [TXW] button to monitor the transmit frequency when split frequency operation is engaged. Release the mouse button to return to normal operation.

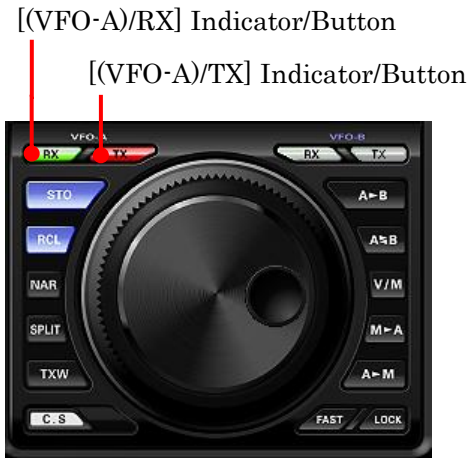


[(VFO-A)RX] Indicator/Button

Click the left mouse button on the VFO-A [RX] button to toggle the VFO-A receiver "on" and "off". When the VFO-A receiver is set to "on", this button glows green.

[(VFO-A)TX] Indicator/Button

Click the left mouse button on the VFO-A [TX] button to toggle transmitter control between the "VFO-A" and "VFO-B". When the transmitter control is set to "VFO-A", this button glows red.

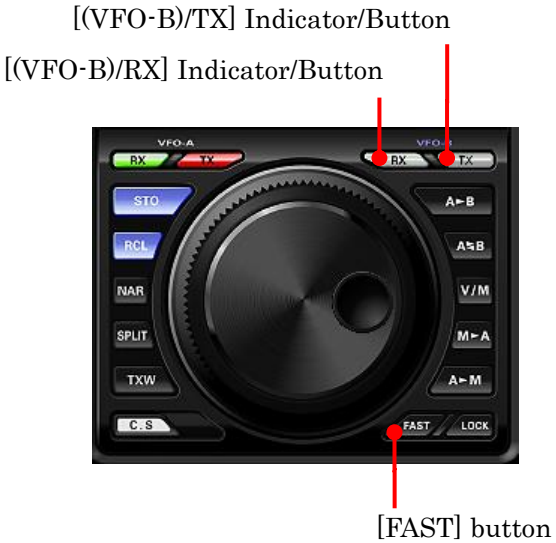


[(VFO-B)RX] Indicator/Button

Click the left mouse button on the Sub [RX] button to toggle the Sub Band (VFO-B) receiver on and off. When the Sub Band (VFO-B) receiver is set to on, this button glows green.

[(VFO-B)TX] Indicator/Button

Click the left mouse button on the Sub [TX] button to toggle transmitter control between the "Main Band (VFO-A)" and "Sub Band (VFO-B)." When the transmitter control is set to "Sub Band (VFO-B)," this button glows red.

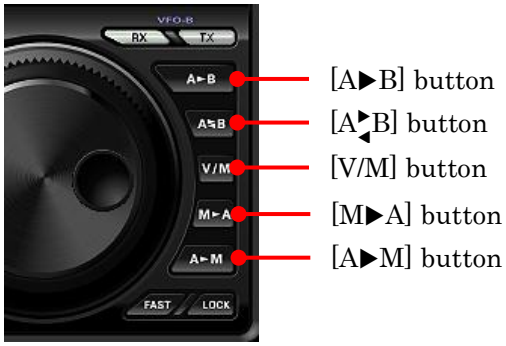


[FAST] Button

Click the left mouse button on the [FAST] button to toggle the tuning rate of the [Main Tuning Dial] knob between "Fast" and "Slow". When the tuning rate is set to "Fast", the "FAST" icon will appear in the frequency display.

[A⇨B] Button

Click on the [A⇨B] button to transfer frequency data from VFO-A (or a recalled memory channel) to VFO-B.



[A⇦⇨B] Button

Click on the [A⇦⇨B] button to exchange the contents of VFO-A (or a recalled memory channel) and VFO-B.

[V/M] Button

Click on the [V/M] button to toggle the VFO-A receiver operation between the memory system and the VFO.

[M⇨A] Button

Click on the [M⇨A] button to copy the data from the currently selected memory to the Main VFO (VFO-A).

[A⇨M] Button

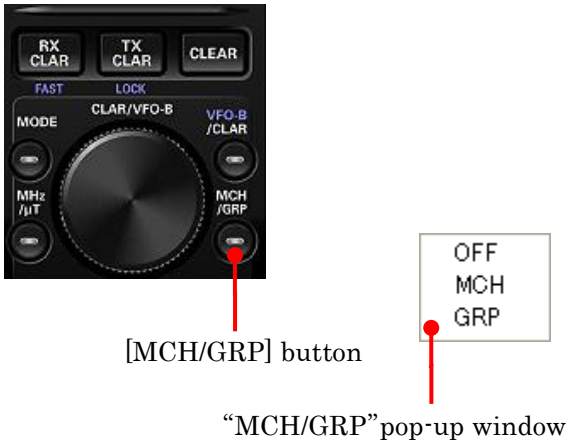
Click on the [A⇨M] button to copy the current operating data from VFO-A into the currently selected memory channel, overwriting any previous data stored there.

[MCH/GRP] Button

Click the left mouse button on the [MCH/GRP] button to open the "MCH/GRP" pop-up window, and then select the function you wish to use.

MCH: Select a memory channel by using the [**CLAR/VFO-B**] knob.

GRP: Select a memory group by using the [**CLAR/VFO-B**] knob.



[RX CLAR/FAST] Button

The function of this button is changed by the setting of the [VFO-B/CLAR] button.
When the [VFO-B/CLAR] button is turned "off", click the left mouse button on the [RX CLAR/FAST] button to turn the RX Clarifier on and off.
When the [VFO-B/CLAR] button glows Orange, click the left mouse button on the [RX CLAR/FAST] button to toggle the tuning rate of the [CLAR-VFO-B] knob between "Fast" and "Slow". When the tuning rate is set to "Fast", the "FAST" icon will appear in the TFT display.

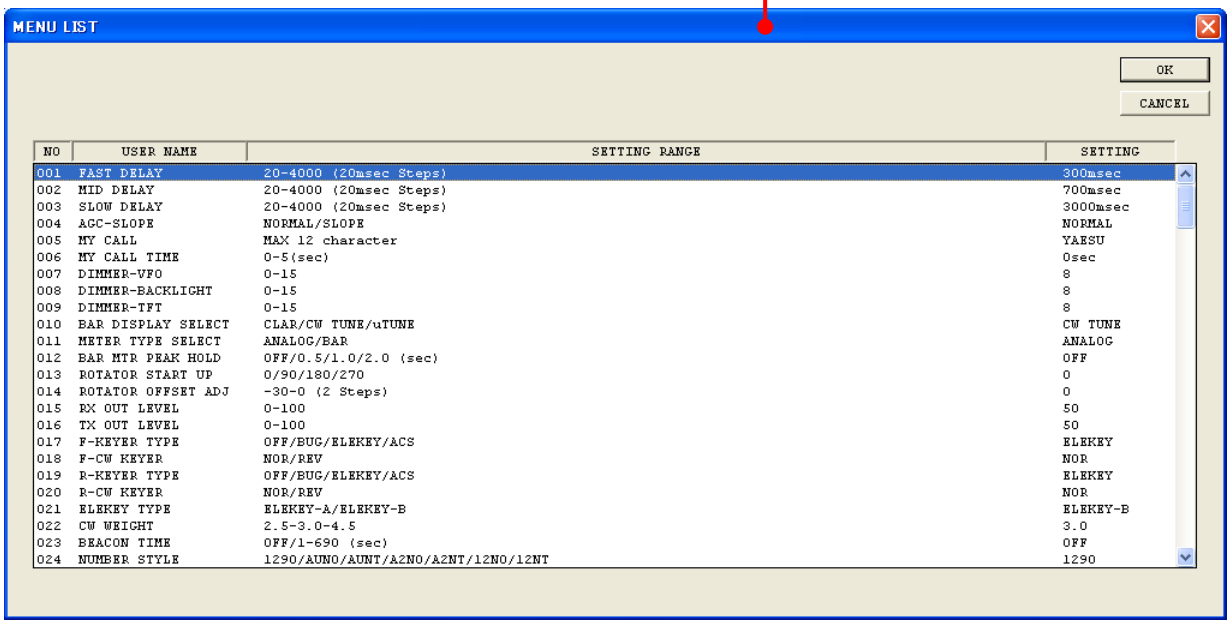
[RX CLAR/FAST] button

MENU OPERATION

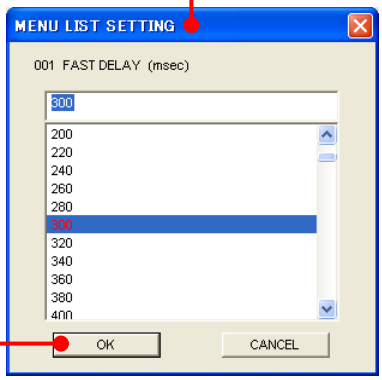
1. Click the left mouse button on the [MENU] button to open the "MENU" window.
2. Turn the mouse scroll to select the Menu item you wish to work on, and then double click the left mouse button on the Menu item to open the pop-up window.
3. Change the current setting of the selected Menu item, and then click the [OK] button to close the pop-up window.
   Click the [CANCEL] button to close the pop-up window without changing the setting.
4. Click the [OK] button to save the new setting and close the "MENU" window.
   Click the [CANCEL] button to close the "MENU" window without saving the setting.

[MENU] button

"MENU LIST" window



"MENU LIST SETTING" window



[OK] button

COMMAND SEND

1. Click the left mouse button on the “Command Send” parameter in the “File” menu on the “PCC-3000” Personal Computer Controller to open the “Command Send” pop-up window.
2. Enter the CAT command you wish send to the FTDX3000 with the PC keyboard.

   For example: Set the VFO-A frequency to 14.250000 MHz.
   FA14250000;

   Refer to a “FTDX3000 CAT Operation Reference Book” for the CAT command. You may download the “FTDX3000 CAT Operation Reference Book” from the YAESU Web site.
3. Click the [OK] button to send the CAT command to the transceiver and close the pop-up window.

“Command Send” Parameter

“Command Send” Window

[OK] button

FUNCTION KEY OPERATION

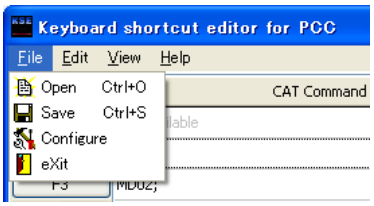
You can program and assign the CAT commands into your computer's Function keys using the YAESU KSE4PCC Keyboard Shortcut Editor, and then you may control the transceiver by pressing your computer's Function keys while the "PCC-3000" Personal Computer Controller is active.
Each of the following 46 Function keys may be programmed with a CAT command sequence. There are a total of 102 commands to chose from:
[F2] key ~ [F9] key, [F11] key, [F12] key,
[Shift] + [F1] key ~ [Shift] + [F9] key, [Shift] + [F11] key, [Shift] + [F12] key,
[Cntl] + [F1] key ~ [Cntl] + [F9] key, [Cntl] + [F11] key, [Cntl] + [F12] key,
[Alt] + [F1] key ~ [Alt] + [F3] key, [Alt] + [F5] key, [Alt] + [F7] key, [Alt] + [F12] key,
[Page Up] key, [Page Down] key, [Home] key, and [End] key

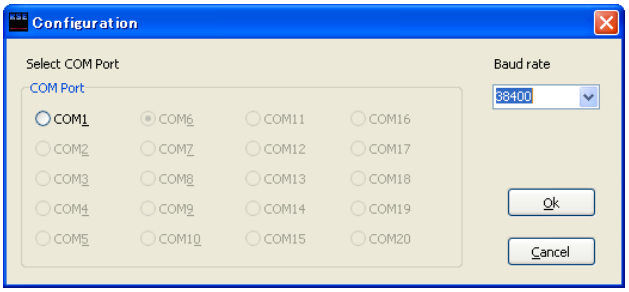
INSTALLATION

1. Copy the "KSE4PCC1.exe" file into the folder where you installed the "PCC-3000.exe" file.
2. Double click the left mouse button on "KSE4PCC1.exe" to open the "Keyboard Shortcut Editor" window.

CONFIGURATION SETTING

1. Click the left mouse button on the "Configure" parameter in the "File" menu on the "Keyboard Shortcut Editor", and then click the left mouse button on the "Configure" parameter to open the "Configuration" pop-up window.
2. Click the left mouse button on the communication port which is connected to the USB cable or RS-232C cable which is connected to the FTDX3000, and then selects the transceiver computer interface circuitry for the Baud Rate to be used. We recommend "38400 bps".
3. Click the left mouse button on the [OK] button to save the new setting and close the "Configuration" window.
4. Re-boot the "Keyboard Shortcut Editor".

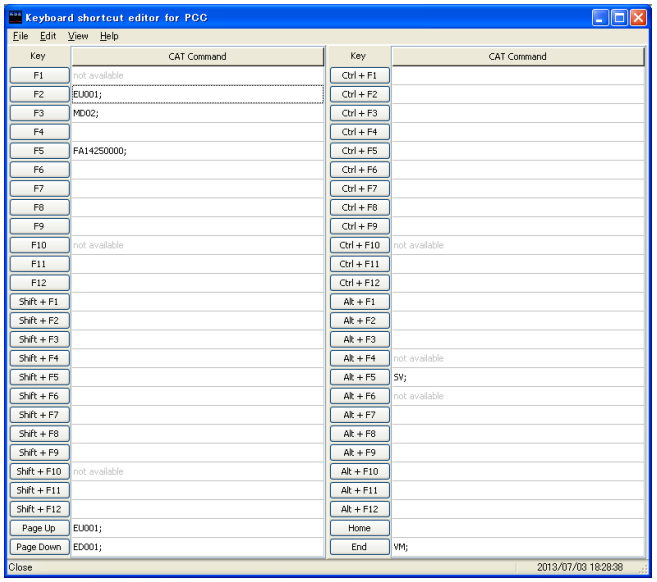




PROGRAMMING

Following is an example of programming a CAT command shortcut into one of the Function keys:

1. Enter the CAT command you wish to assign to a specific Function key.

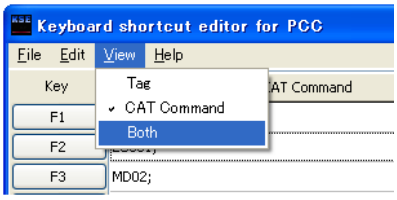


Example 1:
Set the VFO-A frequency to 14.250000 MHz.
FA14250000;

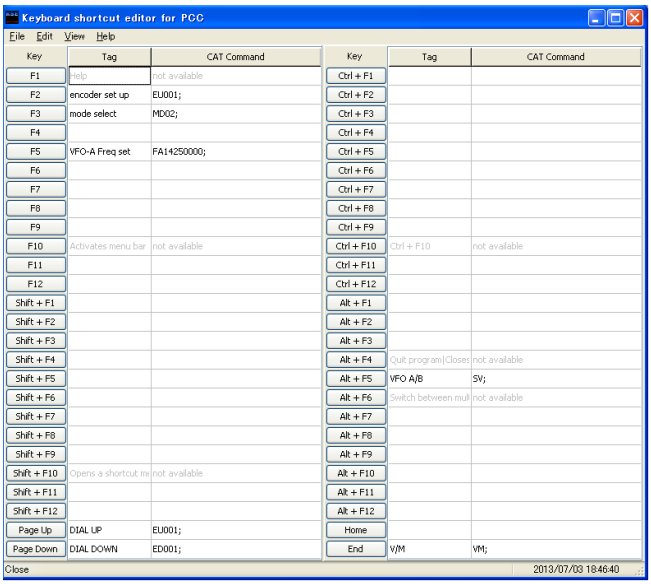
Example 2:
Set the VFO-A Operating Mode to "USB"
MD02;

Example 3:
Set the VFO-A frequency to 14.250000 MHz, USB mode.
FA14250000; MD02;

2. You may append an Alpha-numeric "Tag" to a CAT Command for your reference (This is for reference only. The Alpha-numeric "Tag" is not displayed on the "PCC-3000" Personal Computer Controller). To append a "Tag" to your CAT shortcut key, click the left mouse button on the "Tag" or the "Both" parameter in the "View" menu on the "Keyboard Shortcut Editor". Your new reference "Tag" appears in the "Tag" column on the "Keyboard Shortcut Editor".



3. To close the "Keyboard Shortcut Editor" and save the CAT commands, click "File" in the menu bar, and then click "Save" parameter in the drop-down list. In the Confirmation pop-up window, click the [Yes] button to save the new setting.



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