



ADVANCED MANUAL

HF/50 MHz TRANSCEIVER IC-7610

Instructions for advanced operations and additional details are described in this manual.
See the Basic manual for the basic operations, especially for new users.

INTRODUCTION

1 ADVANCED CONNECTIONS

2 ADVANCED OPERATIONS

3 ADVANCED SCOPE OPERATION

4 VOICE RECORDER FUNCTIONS

5 VOICE TX MEMORY OPERATION

6 SD CARD/USB FLASH DRIVE (ADVANCED)

7 MEMORY OPERATION

8 SCANS

9 CLOCK AND TIMERS (ADVANCED)

10 ANTENNA TUNER OPERATION (ADVANCED)

11 OTHER FUNCTIONS

12 MAINTENANCE (ADVANCED)

13 UPDATING THE FIRMWARE

INDEX

Table of contents

1. ADVANCED CONNECTIONS.....	1	3. ADVANCED SCOPE OPERATION.....	36
■137 kHz band operation.....	1	■Spectrum Scope screen	36
■Connecting the RC-28	2	Setting the Center mode span	36
Using the RC-28	2	Setting the Fixed mode range.....	36
■FSK, AFSK, PSK connections	3	Directly tuning to a signal.....	37
■Connecting the AH-740.....	4	Dual Scope screen	37
2. ADVANCED OPERATIONS.....	5	Sweep speed	38
■Band Edge Beep.....	5	Adjusting the Reference level	38
Entering Band Beep Edges	5	■SCOPE SET screen	39
■Adjusting the Drive Gain level.....	9	4. VOICE RECORDER FUNCTIONS.....	42
■IP Plus function.....	9	■Recording a QSO audio.....	42
■Tracking function	10	Using the [REC] key	42
■VOX function.....	11	Using the [QUICK] key.....	42
Adjusting the VOX function	11	Using the MENU screen	42
Turning ON the VOX function	11	■Playing back a QSO audio.....	43
■ΔTX function.....	12	■Playing back a recorded audio on a PC	44
ΔTX monitor function	12	■Checking the folder information	
■Operating CW (ADVANCED).....	13	and file information	45
About the CW Reverse mode	13	■Deleting files	46
Using the Memory Keyer function (KEYER) ...	13	■Deleting folders.....	46
Keyer memory edit menu (EDIT)	14	■RECORDER SET screen	47
Contest number menu (001 SET).....	15	■PLAYER SET screen	48
Keyer set menu (CW-KEY SET).....	16	■INSTANT REPLAY SET screen	49
■Operating RTTY (FSK)	17	■Instant Replay function	49
Displaying the RTTY DECODE screen.....	18	Recording the Instant Replay	49
RTTY decoding	18	Playing back the Instant Replay	49
Twin Peak Filter (TPF).....	18	5. VOICE TX MEMORY OPERATION.....	50
Transmitting an RTTY memory content	19	■Recording a Voice TX memory	50
Setting the RTTY Automatic TX/RX	20	Recording	50
Editing an RTTY memory.....	21	Playing back	50
Turning ON the RTTY log	22	■Entering a Voice TX memory name	51
Viewing the RTTY log contents.....	23	■Transmitting a Voice memory content	52
RTTY Decode Log set	23	Transmitting	52
■Operating PSK.....	25	Repeatedly transmitting.....	53
Displaying the PSK DECODE screen	25	Adjusting the output level.....	53
PSK decoding	26	■VOICE TX SET screen	54
AFC/NET function	26	6. SD CARD/USB FLASH DRIVE (ADVANCED) ...	50
Transmitting a PSK memory content	27	■Saving the setting data onto	
Setting the PSK Automatic TX/RX	28	an SD card or USB flash drive	55
Editing a PSK memory.....	29	■Loading the saved data files onto	
Turning ON the PSK log	30	an SD card or USB flash drive	56
Viewing the PSK log contents.....	31	■Deleting a data file	57
PSK Decode Log set	31	■Displaying the SD card or USB flash drive	
■FM repeater operation	33	information.....	58
Setting the repeater tone frequency	33	■About the SD card and USB flash drive's folders...	59
Checking the repeater input signal	34	The SD card folder.....	59
■Tone squelch operation.....	35	USB flash drive folder	59
■Data mode (AFSK) operation	36		
■Transverter operation	36		
Transverter setting example	36		
■About the 5 MHz frequency band operation	37		

Table of contents (Continued)

7. MEMORY OPERATION	60	11. OTHER FUNCTIONS.....	78
■Memory channels	60	■RF Direct Sampling System.....	78
■Selecting a Memory channel	60	■About the RF/SQL Control.....	79
■Entering memory channel contents	61	■About “USB SEND/Keying”	80
■Copying the Memory channel contents	62	■Measuring SWR.....	81
Copying to the VFO	62	■Selecting the Display Type	82
Copying to the other Memory channel	62	■Selecting the Display Font.....	82
■Entering a memory name	63	■Displaying my call sign	82
■Clearing a memory channel.....	64	■Screen Capture function	83
■About the MEMORY screen	64	Setting the Screen Capture function	83
■Memo Pad	65	Capturing a screen	83
Saving the displayed contents		Viewing a captured screen.....	83
into a Memo Pad.....	65	■REF adjustment.....	84
Calling up the Memo Pads.....	65		
8. SCANS.....	66	12. MAINTENANCE.....	85
■Scan types	66	■Cleaning.....	85
■Preparation	66	■Replacing fuse	85
Squelch status	66	DC power cable fuses.....	85
■SCAN screen	67	Circuitry fuse	86
■SCAN SET screen	67	■Touch screen calibration function	87
■Programmed scan	68		
Programmed scan operation	68	13. UPDATING THE FIRMWARE	88
■Memory scan	69	■General	88
Memory scan operation	69	About updating the firmware.....	88
Setting the Select Memory channels	69	Checking the firmware version	88
Memory scan operation	70	Preparation	89
■ΔF scan	71	Unzipping the firmware folder	89
ΔF scan operation	71	■Updating the firmware.....	90
9. CLOCK AND TIMERS (ADVANCED).....	72		
■NTP function	72		
Using the NTP Time Synchronize function	72		
Using the NTP function	72		
■Setting the Timers.....	73		
Setting the Sleep Timer	73		
Setting the Daily Timer.....	74		
Daily Timer setting items.....	75		
10. ANTENNA TUNER OPERATION (ADVANCED)	76		
■Using the [RX-I/O] in the Dualwatch operation	76		
■Selecting the antenna connector	77		

Icom, Icom Inc. and the Icom logo are registered trademarks of Icom Incorporated (Japan) in Japan, the United States, the United Kingdom, Germany, France, Spain, Russia, Australia, New Zealand and/or other countries.

Microsoft, Windows and Windows Vista are registered trademarks of Microsoft Corporation in the United States and/or other countries.

Adobe, Acrobat, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

All other products or brands are registered trademarks or trademarks of their respective holders.

Functions and features of Adobe® Acrobat® Reader®

The following functions and features can be used with Adobe® Acrobat® Reader®.

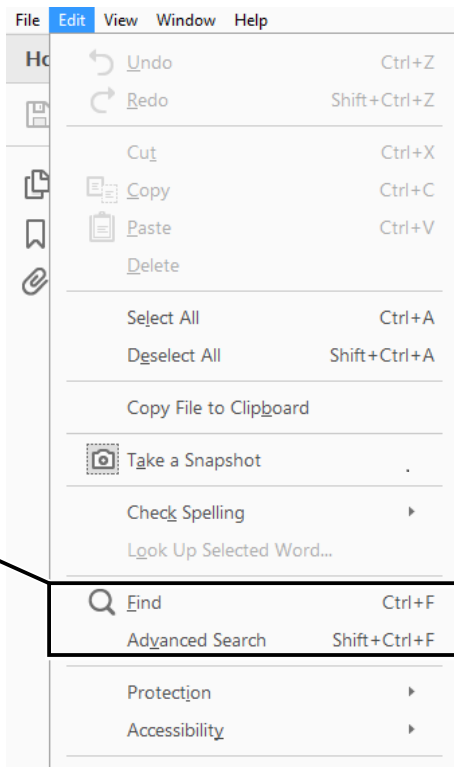
• Keyword search

Click “Find” (Ctrl+F) or “Advanced Search” (Shift+Ctrl+F) in the Edit menu to open the search screen.

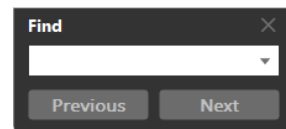
This is convenient when searching for a particular word or phrase in this manual.

*The menu screen may differ, depending on the Adobe® Acrobat® Reader® version.

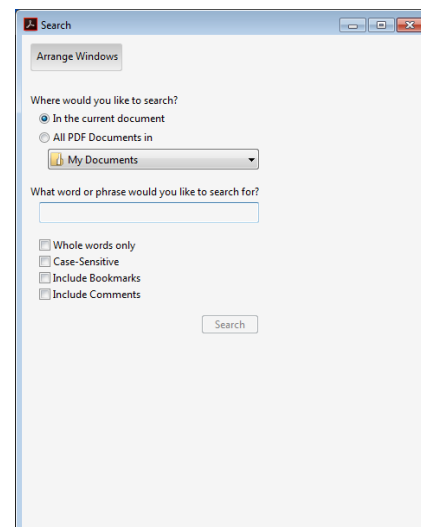
Click to open the find or search screen or advanced search screen.



• Find screen



• Advanced search screen

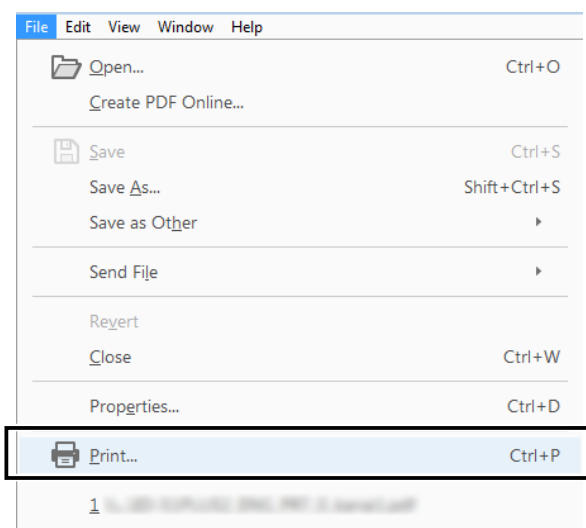


• Printing out the desired pages.

Click “Print” in File menu, and then select the paper size and page numbers you want to print.

*The printing setup may differ, depending on the printer. Refer to your printer’s instruction manual for details.

*Select "A4" size to print out the page in the equalized size.

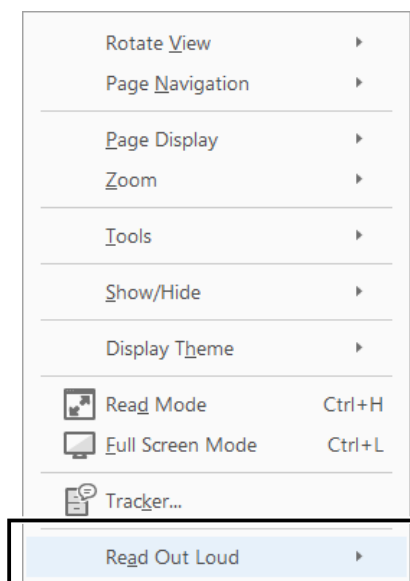


• Read Out Loud feature.

The Read Out Loud feature reads aloud the text in this Instruction Manual.

Refer to the Adobe® Acrobat® Reader® Help for the details.

(This feature may not be usable, depending on your PC environment including the operating system.)



*The screen may differ, depending on the Adobe® Acrobat® Reader® version.

1. ADVANCED CONNECTIONS

137 kHz band operation (European version only)

You can also operate between 135.7 kHz to 137.8 kHz in the CW mode.

The RF signal from [X-VERTER] is used for this operation.

- ① The output of [X-VERTER] is -20 dBm so an up to 1 W linear amplifier may be required.
- ① See the connection illustration to the right.

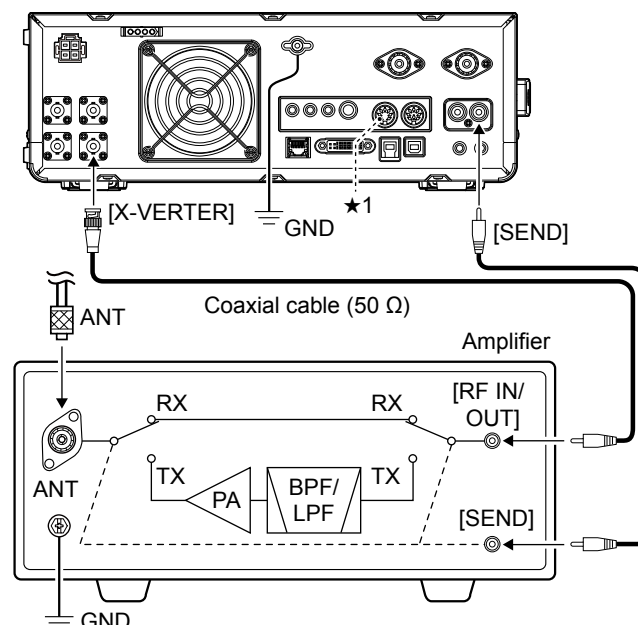
- Be sure to turn OFF the transceiver and the amplifier when connecting them.
- To enable the [X-VERTER] connector, set the “Transverter Function” item to ON, or connect a DC

MENU » **SET > Function > Transverter Function**

voltage to [ACC 2 (6: TRV)] (★1).

MENU » **SET > Function > Transverter Offset**

- Set the offset frequency in the “Transverter Offset” item to “0.000 MHz” to match the transceiver’s operating frequency with the transmitting frequency.
- The antenna cannot be selected, and the internal antenna tuner cannot be used while the Transverter function is turned ON.

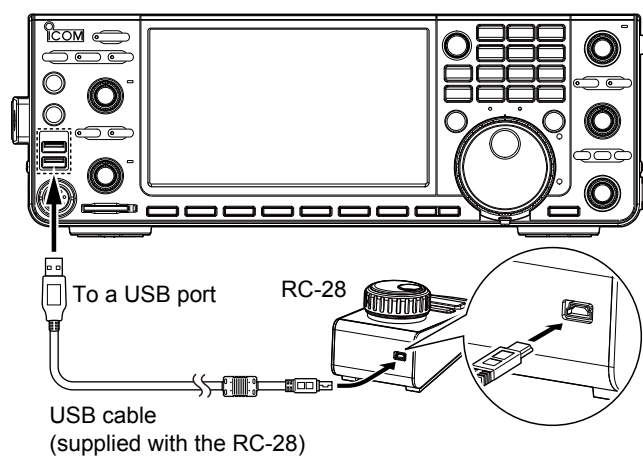


Connecting the RC-28

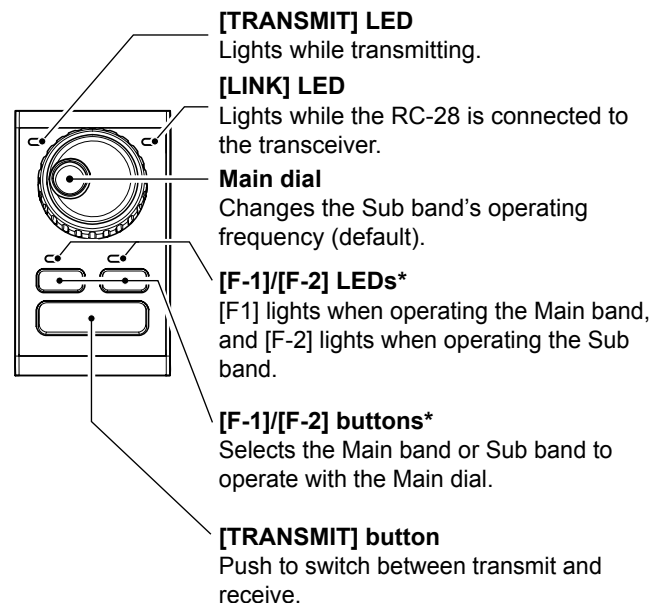
The optional RC-28 REMOTE ENCODER can be used as a sub dial.

NOTE:

- See the RC-28's manual to use the RC-28 with the RS-BA1 IP REMOTE CONTROL SOFTWARE.
- Using the RC-28 with other than the USB cable supplied with the RC-28, or connecting it through a USB hub, is not guaranteed by Icom.



◇ Using the RC-28



* The [F-1] and [F-2] buttons or keys are disabled when "USB Dial Select" is set to "SUB Only."

① Setting the "USB Dial Select" to "MAIN/SUB" enables you to operate both the Main band and the Sub band, using the RC-28.

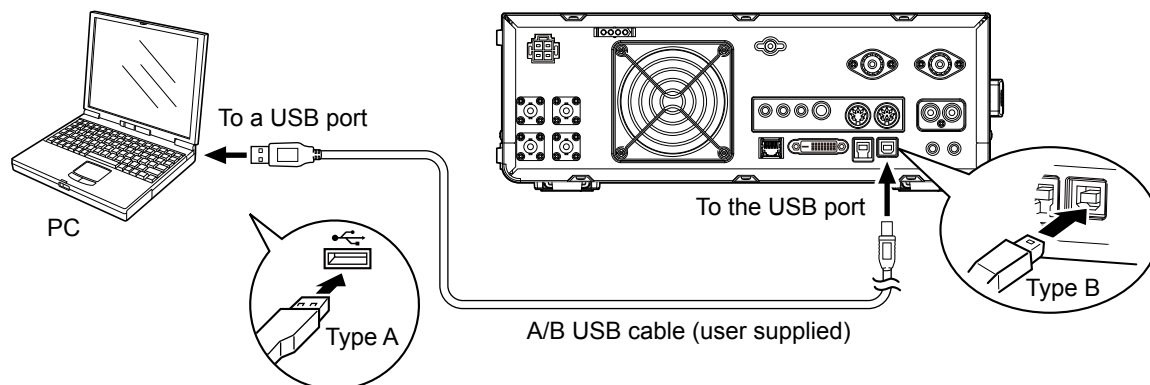
MENU » SET > Connectors > USB DIAL > USB DIAL SELECT

1. ADVANCED CONNECTIONS

FSK, AFSK, PSK connections

The transceiver has a mode keys for RTTY and PSK. You can use a PC and an application software to operate RTTY and PSK using a USB cable. However, if you want to operate AFSK or other digital modes, you can use the ACC socket on the rear panel through an interface unit. See the interface circuit diagram below for details. Refer to the software application's instruction manual for setup details. (Icom does not guarantee performance of the application software, PC, network device or network settings.)

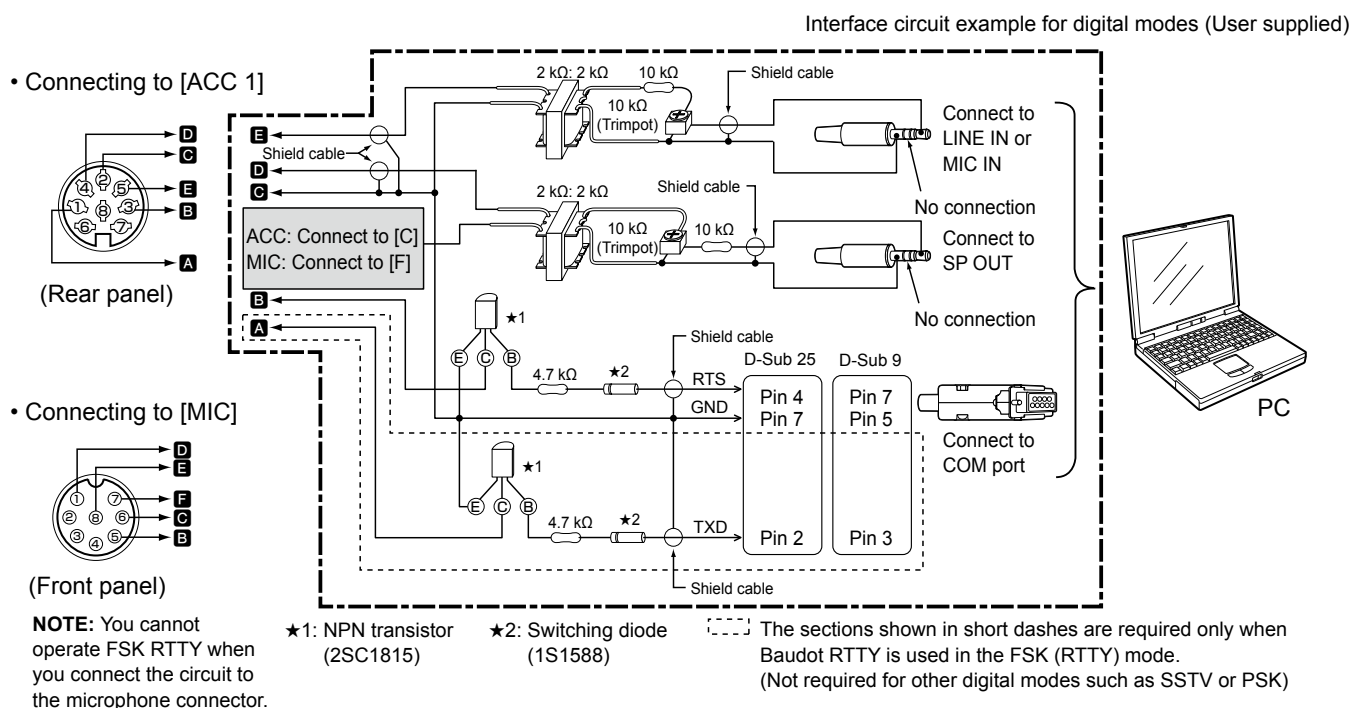
When using the USB port



TIP:

- If you set the "USB Serial Function" item to "RTTY Decode," the decoded RTTY signals are output from the USB port.
- Download the USB driver and the installation guide from the Icom website.
<http://www.icom.co.jp/world/index.html>
 (Support > Firmware Updates/Software Downloads > Transceiver)

When using the ACC socket or the microphone connector



Count on us!

