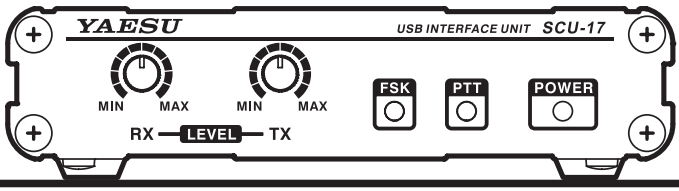
YAESU
The radio

SCU-17 USB INTERFACE UNIT

Instruction Manual



日本語の説明は 16 ページから記載されています。

Introduction

The SCU-17 interface unit may be used for CAT control of the transceiver with a computer via a USB connection; and for communications using SSTV, RTTY and PSK digital modes.

Note: YAESU does not produce CAT, SSTV, RTTY and PSK System operating software, due to the wide variety of personal computers, operating systems, and applications in use today.

- ❒ The SCU-17 provides CAT communication through the USB terminal when a PC does not have an RS-232C connection.
- ❒ The SCU-17 is equipped with a USB audio system device, so the TX and RX audio system signals are accessible to the SCU-17 through the USB cable. Therefore, the supplied USB cable is the only connection needed between the SCU-17 and PC.
- ❒ The SCU-17 is equipped with a two-channel USB serial device and enables the various transmission modes and the CAT communication simultaneously.
- ❒ The SCU-17 operates from the USB bus power; you do not need to prepare an external power supply.
- ❒ For RF isolation, the SCU-17 is designed with photo relays for the PTT/FSK terminals. AF transformers are used in the AUDIO IN/OUT lines to provide excellent ground isolation.
- ❒ The SCU-17 is equipped with the TX and RX audio controls on the front panel, for convenient level adjustment.
- ❒ LED indicators on the SCU-17 front panel monitor the PTT and FSK control. The operating conditions may be quickly confirmed.

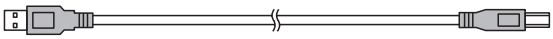
Virtual COM port driver Installation

Install the virtual COM port driver on the personal computer before using the SCU-17 USB interface unit.
Please see the USB Driver (Virtual COM Port Driver) on the Yaesu Website for details (http://www.yaesu.com/).

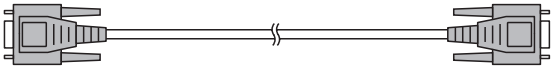
Note: Do not connect the USB cable and SCU-17 to your personal computer until after the “virtual COM port driver” installation is completed, because an incorrect driver may be installed.

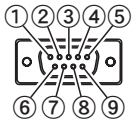
- ❒ For assistance with the software port configuration, refer to “How to Confirm the Installation, and the COM Port Number” in the “Virtual COM port Driver Installation Manual”.
- ❒ For information on port configuration for commercial and free computer software, refer to the manual for the software being used.
- ❒ When using the USB cable to supply TX and RX audio signals, set the Sound Card (input and output) settings to “USB Audio CODEC”.
- ❒ When using the USB cable for computer TX control, the transceiver may switch to transmit mode when the computer is started, etc.
- ❒ YAESU does not provide technical support for the use or operation of commercial or free computer software.

USB cable (Type “A” male to Type “B” male) ..... 1 pc



RS-232C cable (female to female, Straight Type) ..... 1 pc



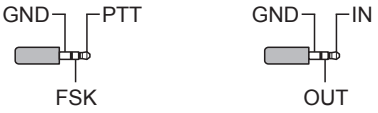


① N/A
② SERIAL IN
③ SERIAL OUT
④ N/A
⑤ GND
⑥ N/A
⑦ RTS
⑧ CTS
⑨ NC

Connection cable (MDIN6P - MDIN6P) ..... 1 pc

① DATA OUT
② GND
③ DATA PTT
④ FSK OUT
⑤ DATA IN
⑥ SQL IN

3.5 mm Stereo plug ..... 2 pcs

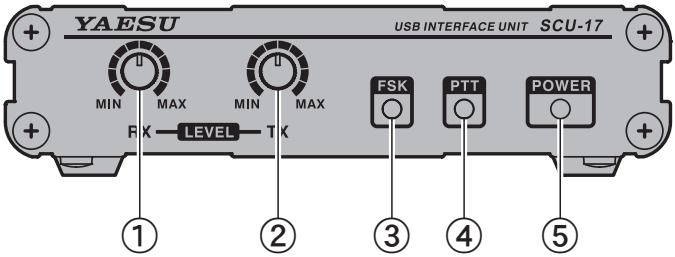


PTT/FSK AUDIO

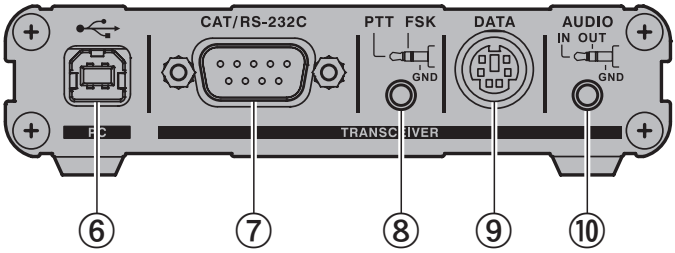
Instruction manual

Controls & Connections

Front Panel



Rear Panel



① RX audio level control knob
This knob adjusts the RX audio level.

② TX audio level control knob
This knob adjusts the TX audio level.

③ FSK Indicator
This indicator illuminates when the Mark frequency is shifted.

④ TX Indicator
This indicator illuminates during transmission.

⑤ POWER Indicator

⑥ USB Connector
Connect to a computer from this jack using the supplied USB cable.

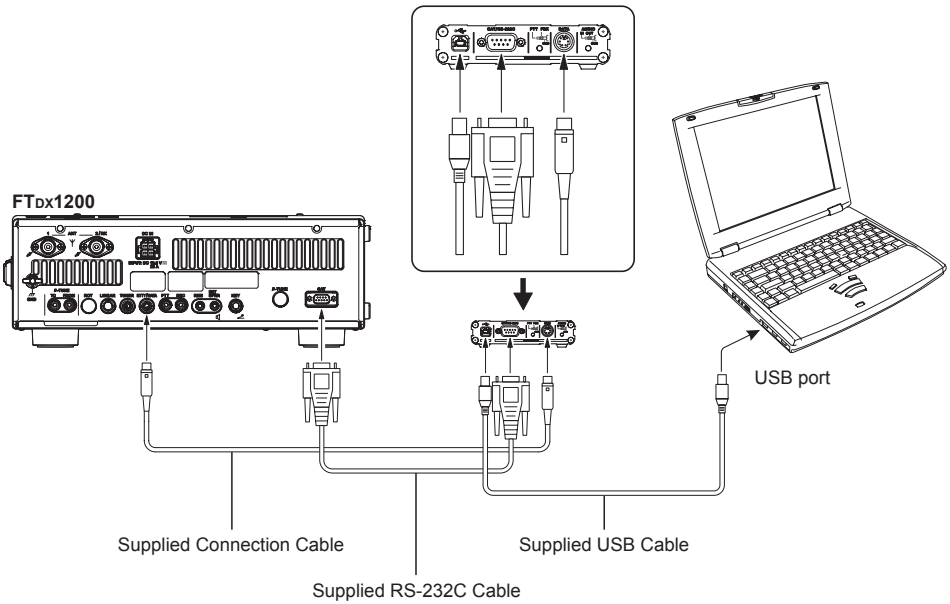
⑦ CAT/RS-232C Jack
This 9-pin serial DB-9 jack allows CAT communication of the transceiver.
Connect a supplied RS-232C cable here and to the transceiver.

⑧ 3.5 mm stereo Jack (PTT/FSK)
This 3-conductor, 3.5 mm stereo jack is used for PTT/FSK. For RF isolation, these terminals are designed with photo relays.

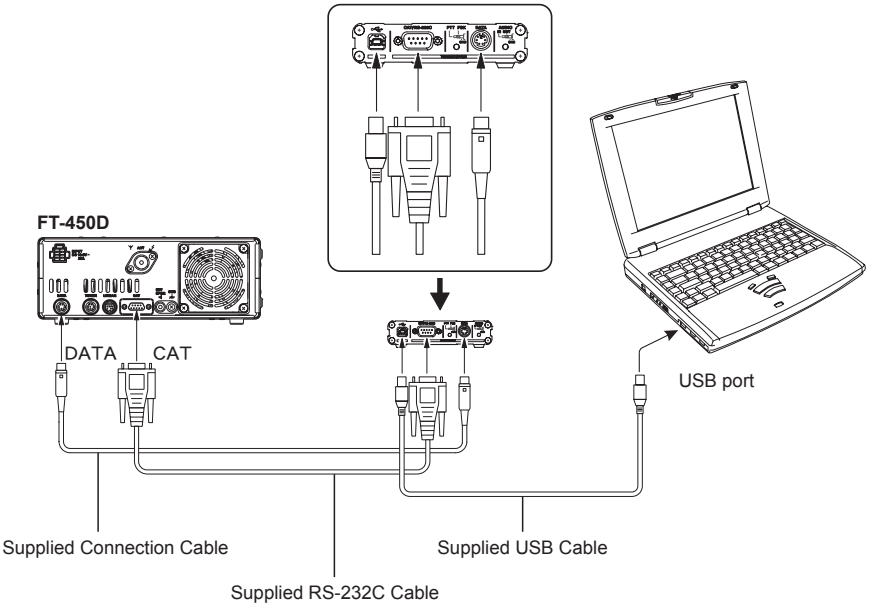
⑨ DATA Jack
This 6-pin (MDIN6P) jack allows DATA communication of the transceiver.

⑩ 3.5 mm stereo Jack (Audio IN/OUT)
This 3-conductor, 3.5 mm stereo jack is used for Audio IN/OUT. For RF isolation, AF transformers are used in the AUDIO IN/OUT lines.
This Jack is equipped with an attenuator that is applied to the audio output.
See page 13 for details about attenuation.

FTDX1200

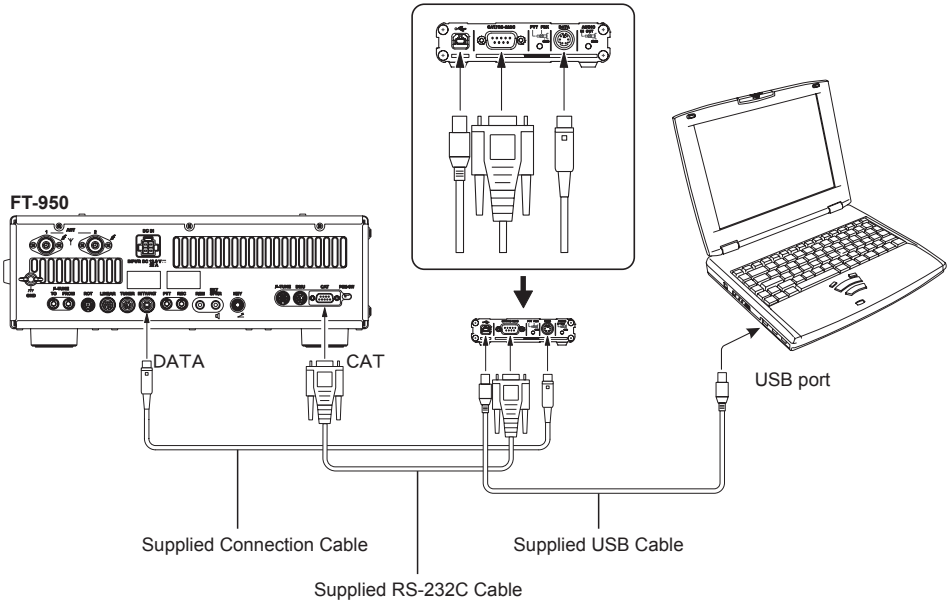


FT-450D

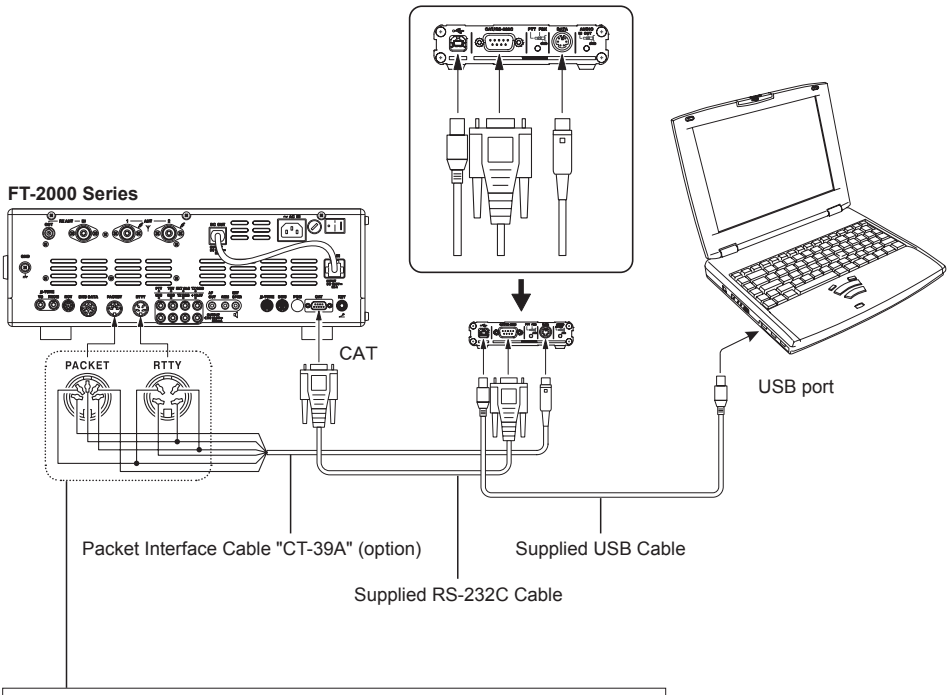


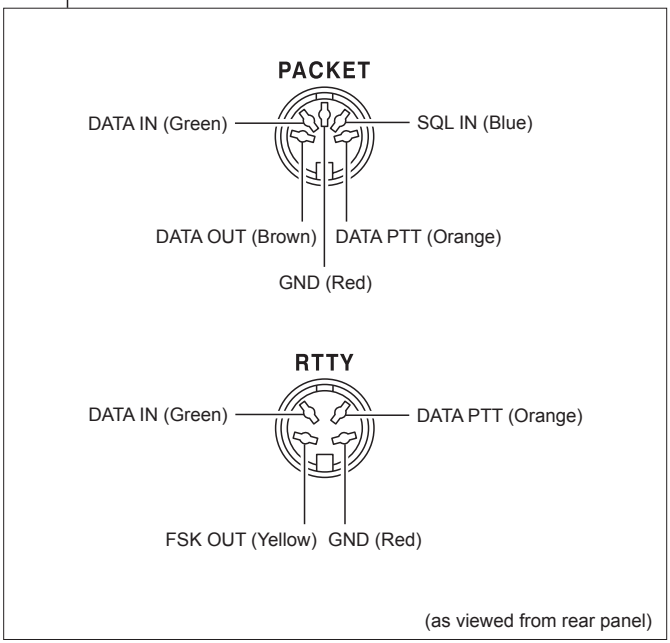
System Setup

FT-950

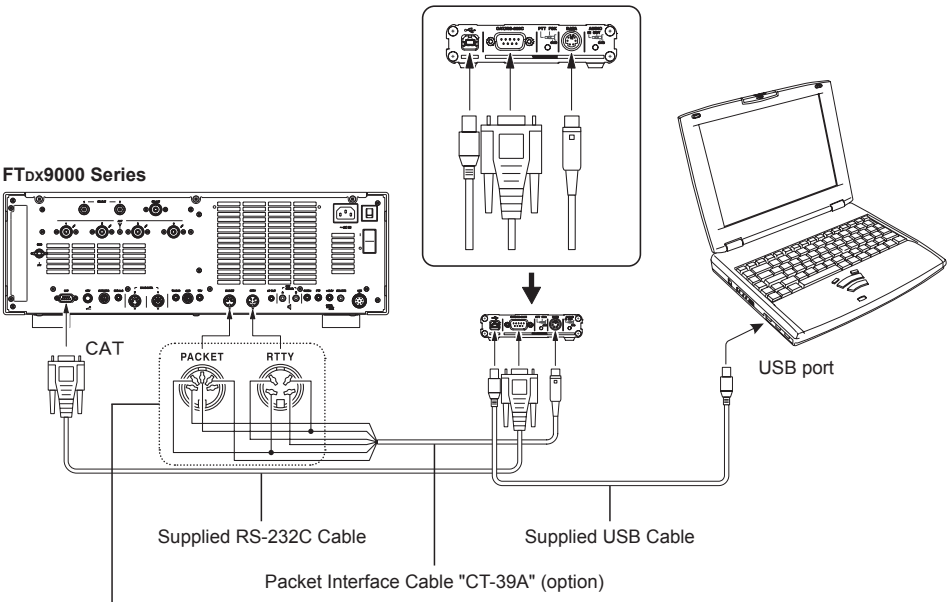


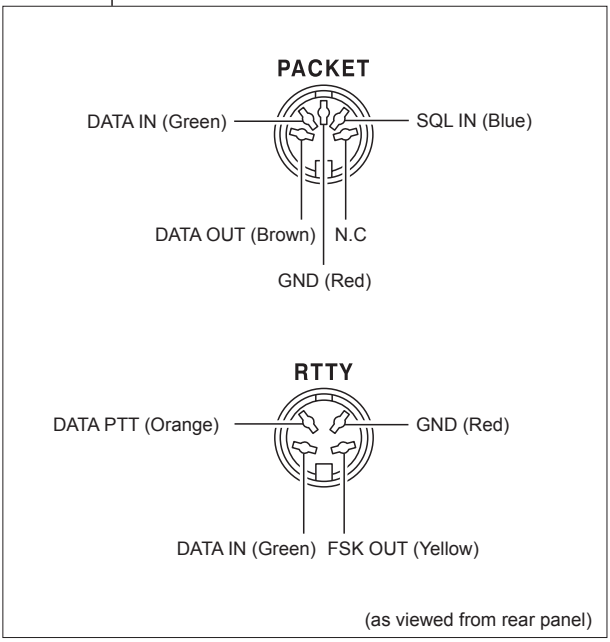
FT-2000 Series



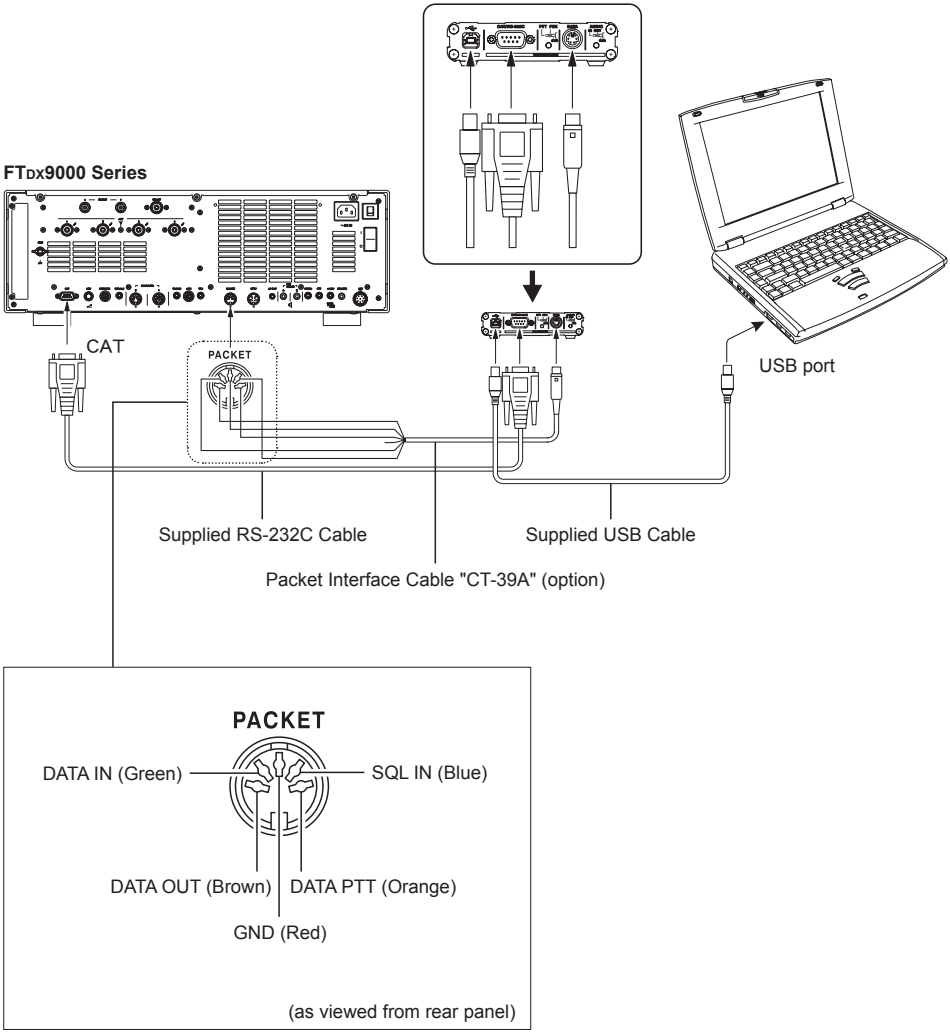


FTDX9000 Series (SSTV/PSK/RTTY)



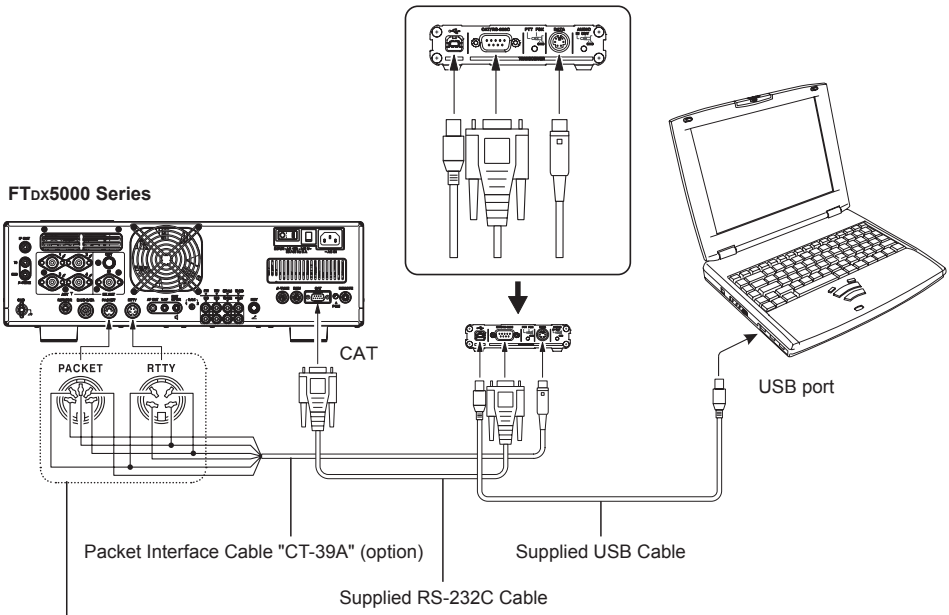


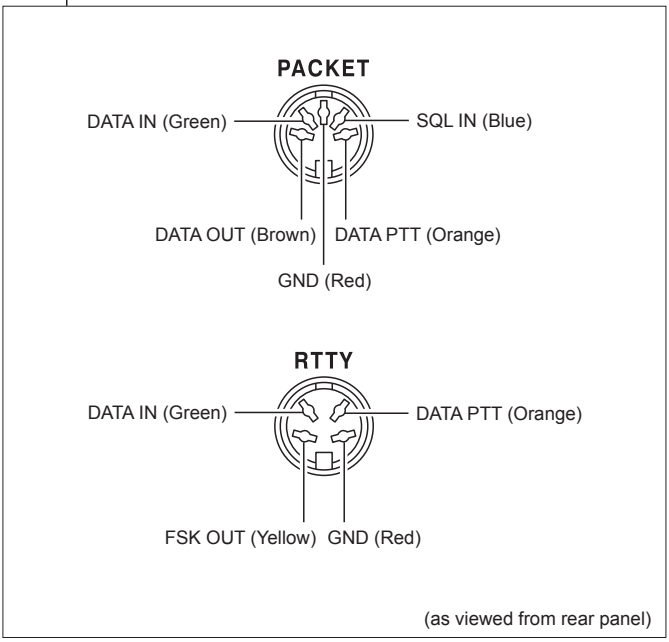
FTDX9000 Series (PSK)



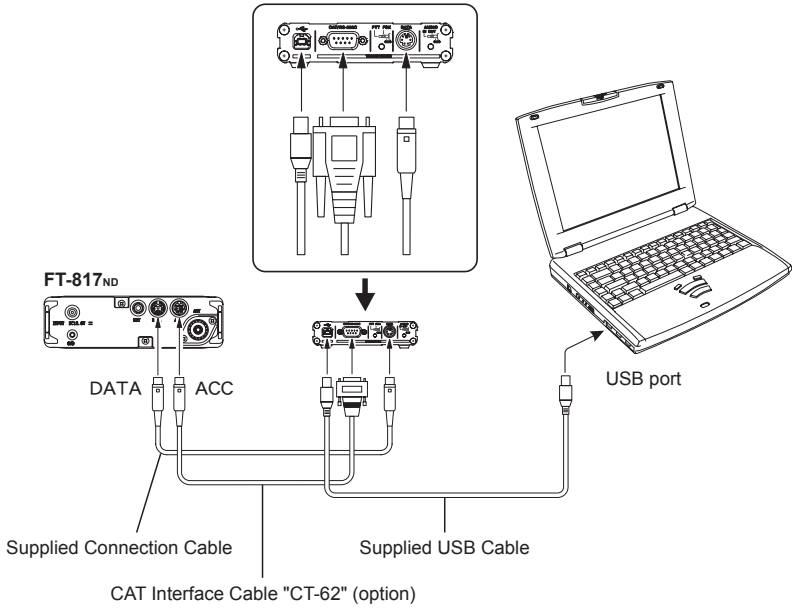
System Setup

FTDX5000 Series

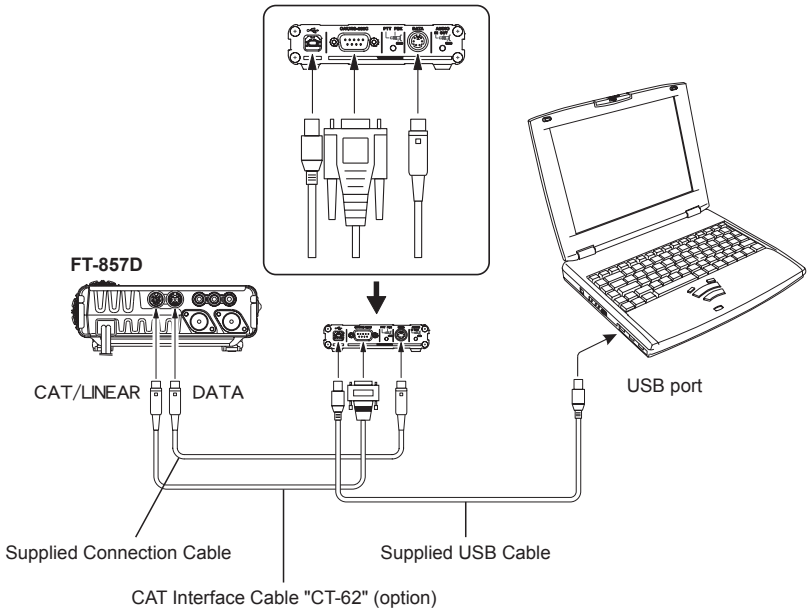




FT-817ND/SCU-17

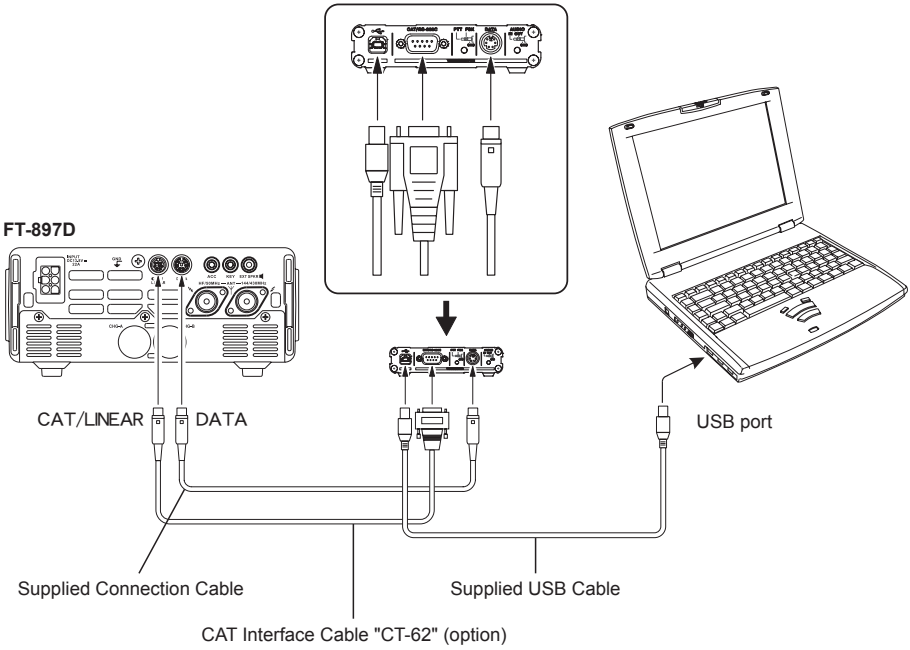


FT-857D/SCU-17

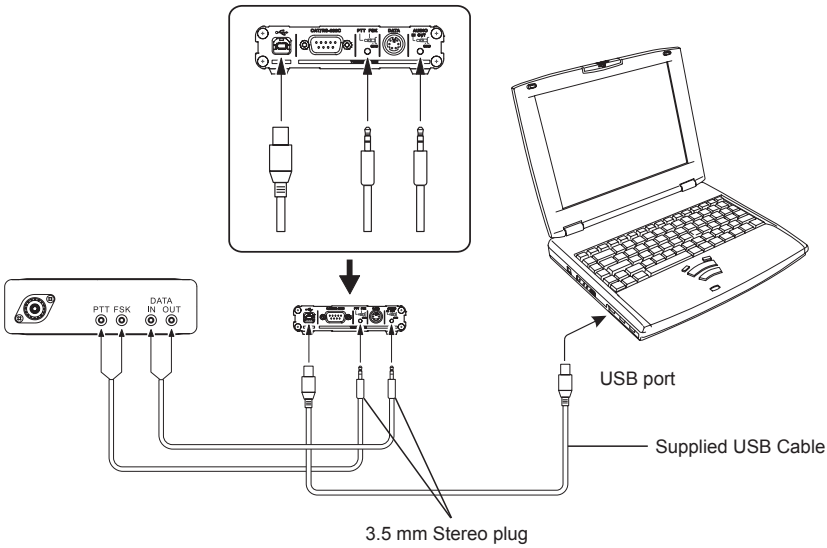


System Setup

FT-897D/SCU-17



Interfacing to other transceivers



PTT/FSK control and Attenuator Setting

The PTT/FSK setting may be changed and the audio output attenuator may be enabled by changing the configuration of an internal switch and a jumper.

1. Disconnect all the cables from the SCU-17.
2. Referring to Figure 1, remove the 4 screws attaching the top case, then remove the top case.
3. Refer to Figure 2 for the location of switch (S1001) and jumper (J1006).
4. Set the switch (S1001) and jumper (J1006).
   S1001: PTT/FSK control setting
   J1006: Attenuator setting to the audio output of the Audio IN/OUT jack.
5. Replace the top case, using the 4 screws removed in step (2) above.
6. Reconnect the cables to the SCU-17.

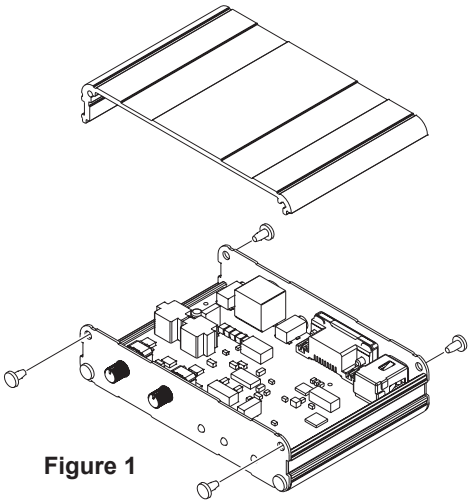


Figure 1

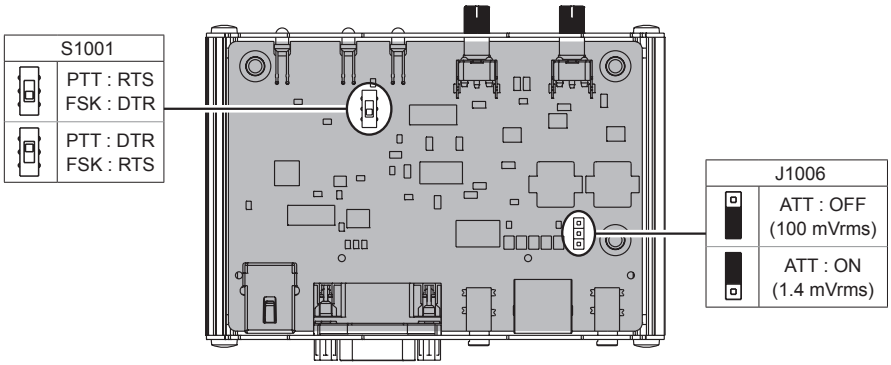


Figure 2

Specifications

Supply Voltage:	DC 5.0 V ±5%, Negative Ground
Current Consumption:	130 mA
Data Jack:	PTT: Maximum output +25 V, 50 mA (open collector)
	FSK: Maximum output +25 V, 50 mA (open collector)
	DATA-IN: 100 mVrms @ 10 k Ohms
	DATA-OUT: 100 mVrms @ 600 Ohms
FSK/PTT Jack:	PTT: Maximum output +30 V, 250 mA (open drain)
	FSK: Maximum output +30 V, 250 mA (open drain)
AUDIO Jack:	AUDIO-IN: 100 mVrms @ 600 Ohms
	AUDIO-OUT: 100 mVrms @ 600 Ohms
CAT/RS-232C Jack:	RS-232C voltage level
USB Connector:	USB 1.1 or USB 2.0, USB bus power
Case Size:	4.37" (W) x 1.0" (H) x 2.91" (D) (111 x 25.4 x 74.0 mm)
Weight (approx.):	8.1 oz (230 g)