

TECHNICAL TIPS
IC-F5330D
IC-F6330D
PAIRING WITH VS-3 HEADSET



PREFACE

This document is intended for persons involved in installation or maintenance of IC-F5330D/IC-F6330D transceivers.

This document describes the preparations required and the precautions on the pairing of the IC-F5330D/IC-F6330D transceivers with the VS-3 or a Bluetooth® headset.

Software versions

The content of this document is based on the firmware and software listed below.

| Models | Version |
|---------------------|---------|
| IC-F5330D/IC-F6330D | 1.30 |
| CS-F5330D | 1.40 |

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SECTION 1 OVERVIEW

1-1. OVERVIEW

The IC-F5330D/IC-F6330D transceivers have versions that support Bluetooth® technology. You can transmit and receive calls using the optional VS-3 or a Bluetooth® headset.*

*Icom does not guarantee operation using any Bluetooth® headsets except the VS-3. Thoroughly check whether any non-icom Bluetooth® headsets can be used with the IC-F5330D/IC-F6330D.

For example, install the transceiver and the microphone to the vehicle console, and pair the VS-3 with the transceiver. Even when you are away from the driver's seat, you can talk on the transceiver through the VS-3 within the coverage of a Bluetooth® connection.

The IC-F5330D/IC-F6330D supports the Bluetooth® specifications listed below.

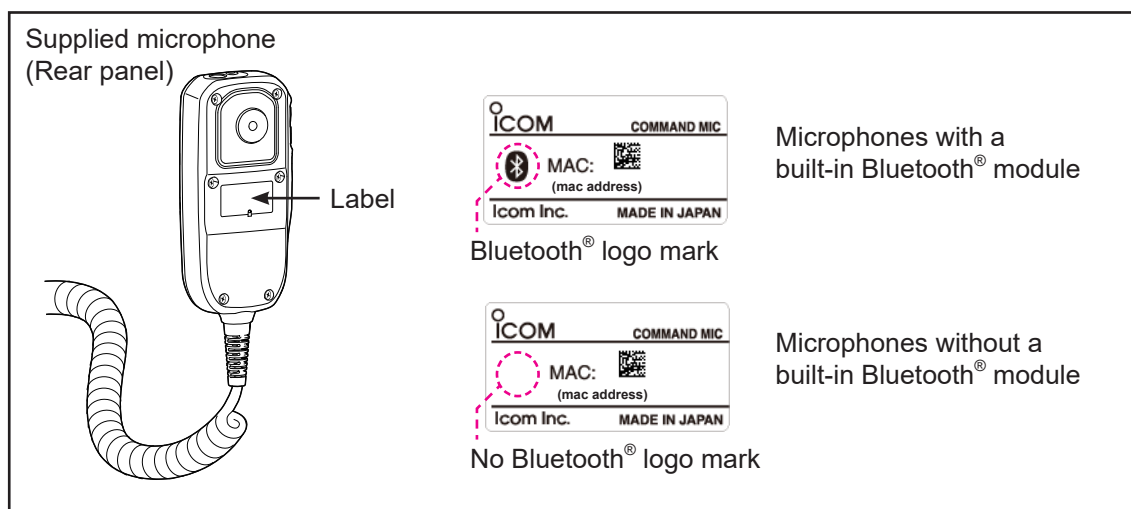
| | |
|----------|--|
| Class | 1 (Communication range: 100 meters or less) |
| Version | 5.3 |
| Profiles | HFP (Hands-free profile), HSP (Headset profile), SPP (Serial port profile) |

The IC-F5330D/IC-F6330D is designed to enable separate installation of the microphone and main unit. The transceiver main unit is designed to be installed in the vehicle trunk, therefore the Bluetooth is built into the microphone.

1-2. IDENTIFICATION

To know whether or not your IC-F5330D/IC-F6330D supports Bluetooth®, check the label on the rear panel of the supplied microphone, as illustrated below. The Bluetooth® logo mark is printed on the label of the microphones with a built-in Bluetooth® module.

NOTE: There is no Bluetooth® logo mark printed on the serial number labels of the transceiver main units.



SECTION 2 TEST OPERATION

2-1. LIST OF REQUIRED EQUIPMENT

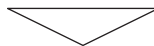
| EQUIPMENT | MODEL AND GRADE | QUANTITY |
|----------------------|---|----------|
| Bluetooth® headset | VS-3 | 1 |
| Transceiver 1 | IC-F5330D or IC-F6330D | 1 |
| Transceiver 2 | Transceiver that can communicate with an IC-F5330D or IC-F6330D | 1 |
| DC Power supplies | Output voltage: 13.8 V | 2 |
| | Rated output current: 20 A or more | |
| Dummy loads | Capacity: 50 W or more | 2 |
| | Impedance: 50 Ω | |
| Programming software | CS-F5330D (Install on your PC.) | 1 |
| Programming cable | OPC-478UC-1 | 1 |

2-2. OPERATION FLOW

Before installing the transceiver, verify that an optional VS-3 (or a Bluetooth® headset) and the transceiver work properly by following the procedures shown below.

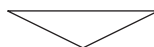
1. Preparation

Prepare equipment for the test operation.
See **2-2. LIST OF REQUIRED EQUIPMENT** shown below.



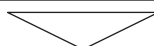
2. Connection

Connect the transceivers to a DC power supply.
See **2-3. CONNECTION EXAMPLE** on the next page.



3. Test operation

Pair a VS-3 (or a Bluetooth® headset) and transceiver, then test transmitting and receiving.
See **2-4. PAIRING WITH THE VS-3** on page 7.

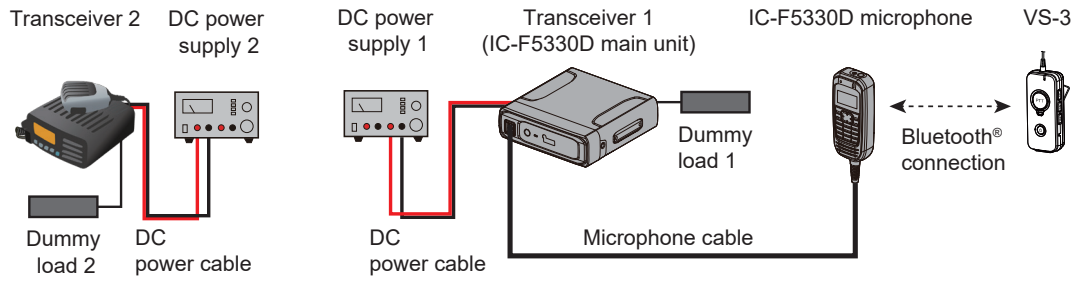


4. Change settings

Change the Bluetooth® settings of the IC-F5330D/IC-F6330D using the CS-F5330D.
See **SECTION 3 SETTINGS** on page 8.

2-3. CONNECTION EXAMPLE

Connect transceivers, dummy loads, and DC power supplies as shown below.
Place the VS-3 (or a Bluetooth® headset) close to the microphone.

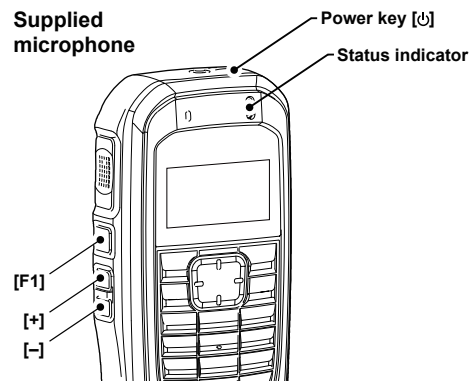


2-4. PAIRING WITH THE VS-3

This page describes the Bluetooth® pairing operation flow with the VS-3 as an example.

ENTERING BLUETOOTH® SETTING MODE

1. Turn ON the DC power supply.
2. Turn OFF Transceiver 1, if it is turned ON.
3. While holding down [F1], hold down [⏻] until the Status indicator lights orange, to turn ON the transceiver.
 - Two short beeps sound.
4. Turn OFF the VS-3 if it is turned ON.
5. Hold down VS-3's [⏻] for six seconds.
 - The indicator alternately lights red and blue, and then the VS-3 enters the Pairing mode.



PAIRING

1. If “📶” is not displayed, push the microphone’s [+] button to turn ON the Bluetooth® function.
 - “📶” blinks while pairing is in progress.
 - When pairing has succeeded, “📶” stops blinking and remains on the display.
2. Turn OFF Transceiver 1, then turn it ON again.

TRANSMITTING AND RECEIVING

1. Hold down [⏻] until the Status indicator lights orange, to turn ON Transceiver 1.
2. Verify that “📶” is displayed and not blinking.
 - If “📶” is not displayed, push the programmable key to turn ON the Bluetooth® function.
3. While holding down the VS-3’s [PTT], speak at your normal voice level.
 - While transmitting, the Status indicator on Transceiver 1 microphone lights red.
 - You can hear your voice from Transceiver 2’s speaker.
4. Release [PTT] to stop transmitting.
5. While holding down Transceiver 2’s [PTT], speak at your normal voice level.
 - While Transceiver 1 receives a signal, the Status indicator lights green, and the transmitted voice from Transceiver 2 is heard from the earphone connected to the VS-3.

UNPAIRING

(NOTE: No Bluetooth® device is required for this operation.)

1. Turn OFF Transceiver 1, if it is turned ON.
2. While holding down [F1], hold down [⏻] until the Status indicator lights orange, to turn ON the transceiver.
 - Two short beeps sound.
3. If “📶” blinks, push the microphone’s [-] button to turn OFF the Bluetooth® function.
 - “📶” disappears.
4. Hold down the microphone’s [-] button until “BT RESET” is displayed.
5. Turn OFF Transceiver 1, then turn it ON again.

SECTION 3 SETTINGS

3-1. BLUETOOTH® SETTINGS

The CS-F5330D programming software enables detailed settings for using the VS-3 or a Bluetooth® headset paired with the IC-F5330D/IC-F6330D.

If necessary, change the Bluetooth® related settings shown in the table below.

SETTING PROCEDURE

1. Connect the transceiver and the PC with the OPC-478UC-1 programming cable.
2. Start up the CS-F5330D programming software, read the current settings from the transceiver and save them to a desired folder on your PC.
3. Select the “Bluetooth Settings” group.
CS-F5330D > Supplemental Function > Bluetooth Settings
4. After changing the setting values, write the updated settings to the transceiver.

SETTING ITEMS

There are five sub-setting groups in the “Bluetooth Settings” group, and each sub-setting group has some setting items, as shown below.

| SUB-SETTING GROUP | SETTING ITEM | DESCRIPTION |
|---------------------|--|--|
| Bluetooth | Bluetooth | Turn the Bluetooth® function ON or OFF. |
| Connection | Fixed PIN for Headset | Enter a custom PIN required for pairing, if necessary. (Default value: 0000) |
| | Fixed PIN for Data Device | |
| Headset | Connection Type | Select an option for the Synchronous Connection-Oriented (SCO) link. |
| | AF Route Switch | Select whether or not the received audio and beeps are output from the VS-3 or a Bluetooth® headset in addition to the transceiver. |
| | PTT & Mic. Switch | Select the transmit voice input when using the VS-3 or a Bluetooth® headset from the transceiver microphone or the VS-3 or a Bluetooth® headset. |
| | PTT Operation Type | Select [PTT] action from “Normal” or “One-touch PTT.” |
| Icom Headset (VS-3) | PTT Beep | Turn beep sounds ON or OFF when pushing [PTT] on the VS-3. |
| | Key Operation Beep | Turn beep sounds ON or OFF when pushing keys on the VS-3. |
| | [PLAY] Key Assign | Assign the functions. You can assign the same types of functions that can be assigned to the programmable keys on the transceiver. |
| | [FWD] Key Assign | |
| | [RWD] Key Assign | |
| Power Save | Turn the VS-3 Power Save mode ON or OFF. | |
| Data Device | Serial Mode | This is a setting to use a Bluetooth® serial communication device instead of the VS-3 or a Bluetooth® headset. |

3-2. SIMPLE TROUBLESHOOTING

If you have problems with the Bluetooth® connection, pairing, or transceiver operation, check the Bluetooth® function ON/OFF, pairing, and transceiver settings according to the list below.

| TROUBLE OCCURRED | POSSIBLE CAUSE | ACTION TO BE TAKEN |
|--|--|--|
| Cannot enter the "Bluetooth® Setting Mode." | The supplied microphone may not support Bluetooth®. | Make sure whether or not the supplied microphone supports Bluetooth®. See " 1-2. IDENTIFICATION " on page 4. |
| | The operation to enter the "Bluetooth® Setting Mode" may not be correct. | Try the operation again according to the " ENTERING BLUETOOTH® SETTING MODE " procedures on page 7. |
| Connection failure | The Bluetooth® function of the transceiver may not be turned ON. | Make sure the Bluetooth® function is turned ON. To turn ON the Bluetooth® function, use the CS-F5330D programming software. See the "Bluetooth" sub-setting group in the SETTING ITEMS list on page 8. |
| | The VS-3 or a Bluetooth® device may not be paired with the transceiver. | Pair the VS-3 or a Bluetooth® device and the transceiver according to the " ENTERING BLUETOOTH® SETTING MODE " and " PAIRING " procedures on page 7. |
| Pairing failure | The transceiver may have already been paired with another Bluetooth® device. (The IC-F5330D/IC-F6330D can pair only one Bluetooth® device.) | Delete the current pairing information according to the " UNPAIRING " procedure on page 7. Then pair the VS-3 or a Bluetooth® device and the transceiver. |
| The transceiver and Bluetooth® device are paired, but the level of the transmitted voice is too low. | "PTT & Mic. Switch" setting in the "Bluetooth setting" group is wrong. | Set the appropriate option, depending on the actual operation. To speak into the supplied microphone or a paired Bluetooth® device, whichever [PTT] is held down. Select " Auto. " To speak into the supplied microphone while [PTT] is held down. Select " Radio Mic. " To speak into the paired Bluetooth® device while [PTT] is held down. Select " Headset Mic. " |

Revision record

| Version | Month/Year | The revised contents |
|----------------|-------------------|--|
| Version 1.0 | May 2022 | First issue. |
| Version 1.1 | June 2023 | Explanations of the Bluetooth® function are updated. (pp. 2, 4~9) |

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