Thank you for purchasing one of the OPC-478UC/OPC-966U/OPC-1122U/OPC-1862/OPC-2338/OPC-2344 cloning cable. The cloning cables are designed to connect an Icom transceiver/receiver and a PC for data cloning using Icom cloning software. Please read these instructions thoroughly before using the cloning cable.

**IMPORTANT**

READ ALL INSTRUCTIONS carefully and thoroughly before using the cloning cable.

SAVE THESE INSTRUCTIONS! These instructions contain important safety and operating details for the cloning cable.

**EXPRESS DEFINITIONS**

<table>
<thead>
<tr>
<th>WORD</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAUTION</td>
<td>Equipment damage may occur.</td>
</tr>
<tr>
<td>NOTE</td>
<td>If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.</td>
</tr>
</tbody>
</table>

**PRECAUTIONS**

**CAUTION: USE ONLY INDOORS! NEVER** pose the data cable to rain, snow or any liquids.

**NEVER** let metal, wire, or other objects touch any internal part of the connectors.

**CAUTION: NEVER** use a USB cable other than the OPC-1637. DO NOT extend the USB cable. When the cable longer than 1.5 m (4.9 ft) is used, a data error may occur.

DO NOT use harsh solvents such as benzene or alcohol when cleaning, as they will damage the cables.

Ensure that your PC supports USB port operation by confirming the Universal Serial Bus controller is in the PC’s Device Manager.

Connect the cloning cable to the PC’s USB port directly, or to a self-powered USB hub. Approximately 20 mA of current is required for the cloning cable. Insufficient current capacity of the USB port can cause unstable cloning operation and a data error.

**Cloning software compatibility**

The USB type cloning cables, OPC-478UC/OPC-966U/OPC-1122U, are almost the same as the RS-232C type cloning cables, OPC-478/OPC-966/OPC-1122. Therefore, most of the Icom cloning software which require the RS-232C type cables can be used with USB type cables.

**IMPORTANT:** Some Icom cloning software can only select ports 1 to 4. When several peripheral equipment, such as a printer, scanner and hard-disk drive are connected to the USB port, the port number available for the cloning software may be port 5 or higher. Therefore, you cannot choose the proper port number.

**SPECIFICATIONS**

- **Usable temperature range:**
  - OPC-2338/OPC-2344: 0°C to +60°C (+32°F to +140°F)
  - Others: –10°C to +60°C (+14°F to +140°F)

- **Cable length (approximately):**
  - OPC-478UC: 520 mm (20.5 inches)
  - OPC-966U: 250 mm (9.8 inches)
  - OPC-1122U/OPC-2344: 1520 mm (4.9 feet)
  - OPC-1862/OPC-2338: 57 g (2.0 oz)
  - OPC-1637 (USB cable): 49 g (1.7 oz)

**SYSTEM REQUIREMENTS**

A PC with the following is required:

- Microsoft® Windows® 8.1 32 bit/64 bit
- Microsoft® Windows® 8 32 bit/64 bit
- Microsoft® Windows Vista® 32 bit/64 bit
- A USB 1.1 or 2.0 port

The USB driver cannot be used with “RT” versions of Microsoft® Windows® 8.1 and Microsoft® Windows® 8.

**USB DRIVER INSTALLATION (STEP 1)**

- When installing the USB driver, log in as the administrator.
- These instructions are based on using Windows 8.
- The displayed dialog boxes, indications or operations may differ slightly from the following instructions, depending on your operating system, system settings and its service pack level.

1. Make sure Windows has completed its start-up, and no other applications are running.
2. Insert the supplied CD into the CD drive.
3. Double click “ICOM USB Driver Installer_B.exe” contained in the CD.
4. When “User Account Control” appears, click [Yes] to continue.
5. Click “Yes” to start the USB driver installation.
7. Click “InstallShield Wizard Complete” appears. Click [Finish].

**NOTE:**

- After the installation has completed, “InstallShield Wizard Complete” appears. Click [Finish].

- After the USB driver installation has been completed (Step 1), connect the cloning cable to the PC (Step 2).
CABLE CONNECTION (STEP 2)

After completing Step 1, connect the cloning cable to the PC, then the PC automatically starts the USB-to-Serial Comm Port installation.

1. Connect the cloning cable to the USB cable, and then the USB cable to the PC's USB port, as illustrated below.
   - Attach the Ferrite EMI filter to the strain relief of the USB cable.

2. The status is displayed at the bottom of the desktop screen. Wait a moment until it disappears.

For your information: If the status is clicked, the “Installing Icom USB-to-Serial Comm Port (COM✱)” dialog is displayed.
   - “✱” is the number of the COM port.

3. When the status disappears, the installation is completed. Rebooting the PC is recommended.

COM PORT CONFIRMATION (STEP 3)

After the driver installation has completed, confirm the driver availability and the port number. The COM port number is used to set communication with the cloning software.

1. Select “Desktop” and click the folder icon at the bottom of the screen.
   • The “Libraries” window is displayed

2. Right-Click [Computer], and then click [Properties], as shown below.
   • The “System” window appears.
   • Click [Device Manager].
   • “Device Manager” appears.
   • Click the “✱” next to “Ports (COM&LPT),” Confirm “Icom USB-to-Serial Comm Port (COM✱)” is displayed.
   • In this example, the COM port number is “3.”

3. Right-Click [Computer], and then click [Properties], as shown below.
   • The “System” window appears.
   • Click [Device Manager].
   • “Device Manager” appears.
   - “✱” is the number of the COM port.

4. Right-Click [Computer], and then click [Properties], as shown below.
   • The “System” window appears.
   • Click [Device Manager].
   • “Device Manager” appears.
   • Click the “✱” next to “Ports (COM&LPT),” Confirm “Icom USB-to-Serial Comm Port (COM✱)” is displayed.
   • In this example, the COM port number is “3.”

For your information:

- Attach the Ferrite EMI filter to the strain relief of the USB cable.
- USB cable
- Strain relief
- to the USB port

USB cable
Cloning cable

Wait a moment until the status disappears.

When the status disappears, the installation is completed. Rebooting the PC is recommended.

The status is displayed at the bottom of the desktop screen. Wait a moment until it disappears.

For your information: If the status is clicked, the “Installing Icom USB-to-Serial Comm Port (COM✱)” dialog is displayed.

• “✱” is the number of the COM port.

When the status disappears, the installation is completed. Rebooting the PC is recommended.