

IS-TWL-DEBUGGER

Setup Manual

INTELLIGENT SYSTEMS CO.,LTD.

2009/03/03

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and should be handled accordingly.**

Confidential

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1 Using This Product Safely

To use IS-TWL-DEBUGGER safely and ensure the unit does not malfunction and possibly cause a safety hazard, read the following items carefully.

- Do not modify the unit or take it apart.
- If you notice a problem, immediately stop using the unit.
- Do not allow liquids or foreign objects to enter the unit.
- Do not store the unit in a humid or dusty location.
- Never cover the unit or block ventilation.
- Do not bend, pull, or twist the cables.
- Do not subject the unit to strong impact.
- Do not use the unit in locations where the temperature is below 0°C or above 40°C.
- Do not use the unit during an electrical storm.

Regulatory Statement

- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
- This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
- Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense.
- This equipment complies with FCC radiation exposure limits for an uncontrolled environment.
- This equipment should be installed and operated with a minimum distance of 20 cm between the radio frequency energy radiator and body. This transmitter must not be co-located or operating in conjunction with any antenna or transmitter.
- This device has been designed to operate with the antennas listed below, and having a maximum gain of 2dB. Antennas not included in this list or having a gain greater than 2dB are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.
- To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication.

- Modifications made to the product, unless expressly approved by Nintendo, could void the user's right to operate the equipment.
- This Class A digital apparatus complies with Canadian ICES-003. The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.
- Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.
- Le terme "IC" avant le numéro d'homologation ne signifie seulement que les normes d'Industrie Canada ont été respectées.

English	Hereby, INTELLIGENT SYSTEMS CO.,LTD. declares that this IS-TWL-DEBUGGER is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Finnish	INTELLIGENT SYSTEMS CO.,LTD. vakuuttaa täten että IS-TWL-DEBUGGER tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Dutch	Hierbij verklaart INTELLIGENT SYSTEMS CO.,LTD. dat het toestel IS-TWL-DEBUGGER in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
	Bij deze verklaart INTELLIGENT SYSTEMS CO.,LTD. dat deze IS-TWL-DEBUGGER voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.
French	Par la présente INTELLIGENT SYSTEMS CO.,LTD. déclare que l'appareil IS-TWL-DEBUGGER est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
	Par la présente, INTELLIGENT SYSTEMS CO.,LTD. déclare que IS-TWL-DEBUGGER est conforme aux exigences essentielles et aux autres dispositions de la directive 1999/5/CE qui lui sont applicables.
Swedish	Härmed intygar INTELLIGENT SYSTEMS CO.,LTD. att denna IS-TWL-DEBUGGER står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Danish	Undertegnede INTELLIGENT SYSTEMS CO.,LTD. erklærer herved, at følgende udstyr IS-TWL-DEBUGGER overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
German	Hiermit erklärt INTELLIGENT SYSTEMS CO.,LTD., dass sich <i>dieser/diese/dieses</i> IS-TWL-DEBUGGER in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMW)

	Hiermit erklärt INTELLIGENT SYSTEMS CO.,LTD. die Übereinstimmung des Gerätes IS-TWL-DEBUGGER mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG. (Wien).
Greek	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ INTELLIGENT SYSTEMS CO.,LTD. ΔΗΛΩΝΕΙ ΟΤΙ IS-TWL-DEBUGGER ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
Italian	Con la presente INTELLIGENT SYSTEMS CO.,LTD. dichiara che questo IS-TWL-DEBUGGER è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Spanish	Por medio de la presente INTELLIGENT SYSTEMS CO.,LTD. declara que el IS-TWL-DEBUGGER cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Portuguese	INTELLIGENT SYSTEMS CO.,LTD. declara que este IS-TWL-DEBUGGER está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Malti	Hawnhekk, INTELLIGENT SYSTEMS CO.,LTD., jiddikjara li dan IS-TWL-DEBUGGER mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Estonian	Käesolevaga kinnitab INTELLIGENT SYSTEMS CO.,LTD. seadme IS-TWL-DEBUGGER vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
Hungarian	Alulírott, INTELLIGENT SYSTEMS CO.,LTD. nyilatkozom, hogy a IS-TWL-DEBUGGER megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Slovak	INTELLIGENT SYSTEMS CO.,LTD. týmto vyhlasuje, že IS-TWL-DEBUGGER spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Czech	INTELLIGENT SYSTEMS CO.,LTD. tímto prohlašuje, že tento IS-TWL-DEBUGGER je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Slovene	Šiuo INTELLIGENT SYSTEMS CO.,LTD. deklaruoja, kad šis IS-TWL-DEBUGGER atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Lithuanian	Šiuo INTELLIGENT SYSTEMS CO.,LTD. deklaruoja, kad šis IS-TWL-DEBUGGER atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Latvian	Ar šo INTELLIGENT SYSTEMS CO.,LTD. deklarē, ka IS-TWL-DEBUGGER atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

2 Special Notes

2.1 Notes

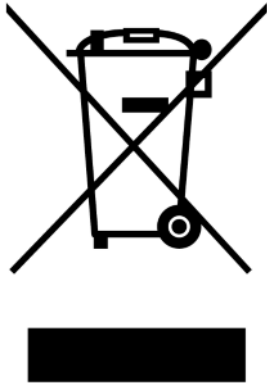
Note the following when using IS-TWL-DEBUGGER.

- After you have turned off the IS-TWL-DEBUGGER device, be sure to wait at least five seconds before turning the power on again. If you turn it on again immediately, the device may not function properly.
- Do not turn off the IS-TWL-DEBUGGER device during firmware updates. The IS-TWL-DEBUGGER device may not function properly afterward.
- During use, do not do anything that would prevent heat dissipation, such as blocking the IS-TWL-DEBUGGER airflow vent, placing the IS-TWL-DEBUGGER in a closed container, or placing objects on top of the IS-TWL-DEBUGGER.
- A connector cable connects the IS-TWL-DEBUGGER main unit ("main unit") to the IS-TWL-DEBUGGER controller unit ("Controller"). Connect the plug with the red band to the lower plug on the Controller, and connect the plug with the black band to the upper plug (see Table 4-1). Be sure to tighten the screws. The device can be damaged if the connector is loose.
- The stylus on the Controller cannot be removed. Use the included stylus.
- The SD Card slot of the Controller cannot be used. Insert SD Cards into the SD Card slot on the main unit.
- The IS-TWL-DEBUGGER device can be used approximately eight seconds after the power switch is turned on.
- When the IS-TWL-DEBUGGER device is sent to Nintendo for repairs or to add options, the system menu is initialized. Please back up your data and settings before sending in the device. Also, reconfigure the device after it is returned and before using it.
- In the liquid crystal display, you might find pixels that are always illuminated or that never illuminate. Also, you might observe irregularity in color or brightness, depending on the angle of view. These are properties of the liquid crystal display and are not defects.
- This product (both the device and the software) contains encryption functions. Please check local export control laws before exporting this product.

2.2 End-of-Life Equipment Disposal

The crossed-out wheeled bin symbol in Figure 2-1 is affixed to all electrical and electronic equipment that has been put into the European market by Nintendo on or after August 13, 2005.

Figure 2-1 Disposal Symbol



This symbol means that at the end of its life, the equipment must be treated in an environmentally sound manner at a licensed recycling plant and its components must be recovered, recycled, or reused in compliance with the requirements of the European Directive on Waste Electrical and Electronic Equipment (2002/96/EC) of January 27, 2003.

Accordingly, you must use separate collection systems for waste electrical and electronic equipment when you dispose of this equipment at the end of its life. Alternatively, you can return this equipment to Nintendo at your own cost, and Nintendo will dispose of it appropriately. To return the equipment, please contact the NOA Development Parts Department for instructions (425-861-2038 or developmentparts@noa.nintendo.com). You will be given a Return Authorization and instructed to return the equipment to an appropriate Nintendo location in your area.

3 Operation Environment

3.1 Requirements

The following components are required to operate IS-TWL-DEBUGGER.

Table 3-1 Operation Environment Requirements for IS-TWL-DEBUGGER

Component	Description
Computer	PC/AT-compatible
Operating system	One of the following 32-bit versions must be installed: • Microsoft Windows Vista, Service Pack 1 or later (32-bit version) • Microsoft Windows XP, Service Pack 2 or later (32-bit version)
Memory capacity	As recommended by the operating system or greater; depending on the scope of the project that you are developing, more memory may be required.
Disc capacity	50 megabytes or more of free memory
Disc drive	Requires a drive that can read CD-ROMs for installation.
Display	XGA display with a 1024x768 resolution or higher
USB interface	One port (two ports when using the capture option) USB 2.0 (high-speed) is recommended for high-speed downloads or video capture

3.2 About USB 2.0

The IS-TWL-DEBUGGER device supports USB 2.0 high-speed (480 Mbps) data transmission. To take advantage of all the IS-TWL-DEBUGGER features, make sure to observe the following cautions.

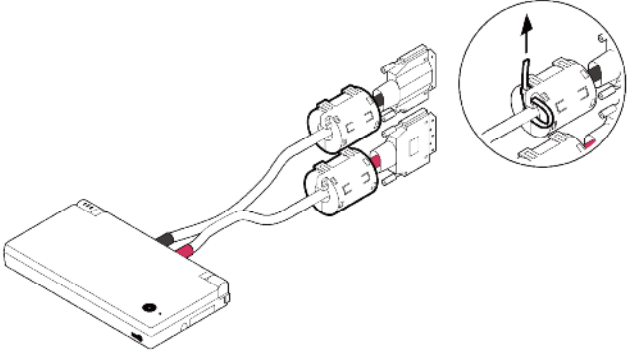
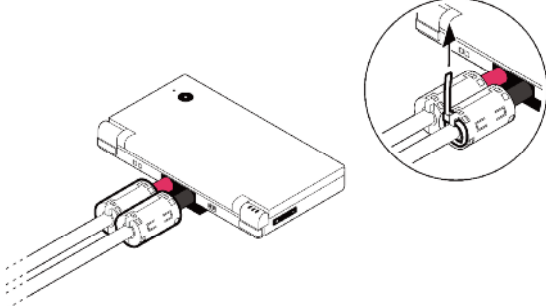
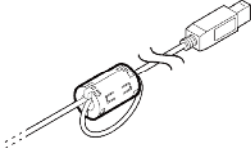
- Confirm that the computer is compatible with high-speed data transmission. If the computer does not support high-speed USB, use a high-speed-compatible USB interface card.
- Make sure to use a USB cable that is compatible with high-speed data transmission to connect the computer with the IS-TWL-DEBUGGER device. A high-speed-compatible USB cable is included with IS-TWL-DEBUGGER.
- When using a USB hub to connect the computer to the IS-TWL-DEBUGGER device, make sure that it is a high-speed-compatible hub.
- If the number of USB devices connected to the computer increases, the data transfer speed will go down. To maximize the data transfer speed, make sure that the only USB device connected to the computer is the IS-TWL-DEBUGGER device.

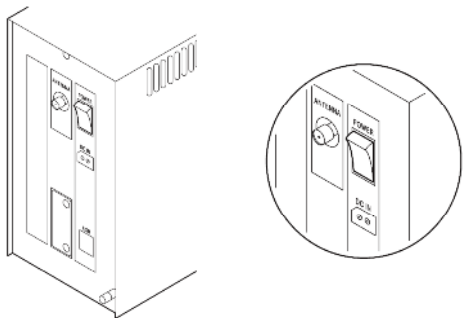
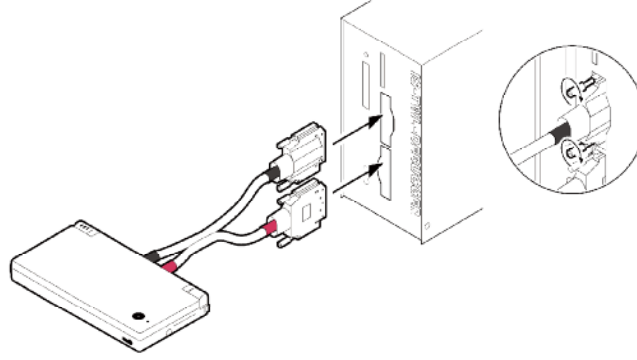
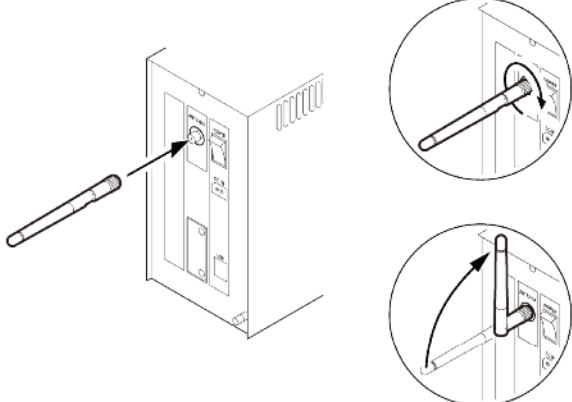
4 Setup

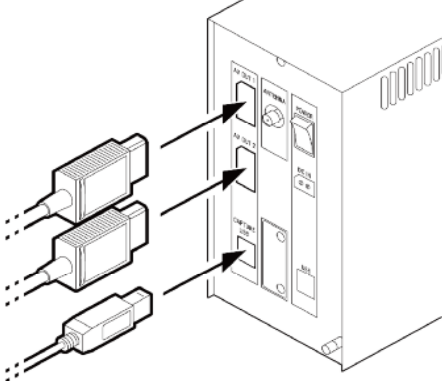
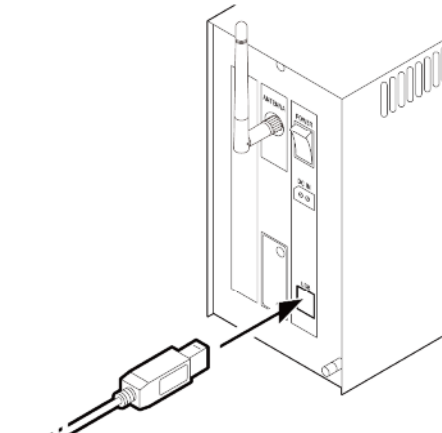
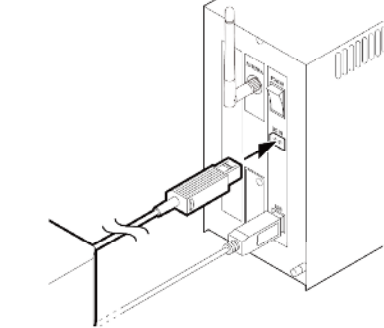
4.1 Connections

Set up the IS-TWL-DEBUGGER hardware using the following procedure.

Table 4-1 Setup Procedure for the IS-TWL-DEBUGGER Hardware

Step	Illustration
1. Attach the large ferrite cores (made by TDK Corporation) to the connectors on the controller, and fasten them using the cable ties (see the figure at right). Use scissors to cut the excess portions of the ties you pulled upward.	
2. Attach the small ferrite cores (made by SEIWA ELECTRIC MFG. CO.,LTD.) to the opposite side of the controller connectors, and fasten them using the cable ties (see the figure at right). Use scissors to cut the excess portions of the ties you pulled upward.	
3. Attach a small ferrite core (made by SEIWA ELECTRIC MFG. CO.,LTD.) to the USB cable. Loop the cable approximately 30 cm from the USB-B connector and sandwich the portion of the cable that is overlapped with the ferrite core (see the figure at right).	

Step	Illustration
4. Check that the power switch on the main unit is off.	 The illustration shows the back panel of the main unit. A circular inset provides a close-up view of the power switch, which is a toggle switch labeled 'POWER' and 'OFF'. The switch is currently in the 'OFF' position.
5. Connect the controller to the main unit. Connect the plug with the red band to the lower plug and the plug with the black band to the upper plug. Be sure to tighten the connector screws.	 The illustration shows a controller connected to the main unit. Two cables, one with a red band and one with a black band, are plugged into the controller's ports. A circular inset shows a close-up of the connector screws being tightened.
6. Connect the antenna to the ANTENNA connector on the back panel of the main unit.	 The illustration shows the antenna being connected to the ANTENNA connector on the back panel of the main unit. A circular inset shows the antenna being inserted into the connector. Another circular inset shows the antenna being secured with a screw.

Step	Illustration
7. If you are using an IS-TWL-DEBUGGER equipped with the Capture option, connect the AV cable to AV OUT 1 and AV OUT 2 on the back panel of the device to output video signals. In addition, when performing captures, connect the CAPTURE USB connector and the computer using a USB cable.	 The illustration shows the back panel of the IS-TWL-DEBUGGER. Three cables are connected to the panel: one to AV OUT 1, one to AV OUT 2, and one to the CAPTURE USB port. Arrows point from the text in the step to these specific ports.
8. Connect the main unit to the computer with a USB cable.	 The illustration shows the back panel of the IS-TWL-DEBUGGER. A USB cable is connected to the main unit. An arrow points from the text in the step to the USB port.
9. Connect the DC plug of the AC adapter to the DC connector at the back of the main unit.	 The illustration shows the back panel of the IS-TWL-DEBUGGER. A DC plug is connected to the DC connector. An arrow points from the text in the step to the DC connector.
10. Connect the AC plug of the AC adapter to an outlet (AC 100 V).	

4.2 Turning the Power On and Off

Always use the following procedure to turn the power on.

1. Turn on the power switch on the back of the main unit.
2. The POWER and SYSTEM lights on the front of the main unit illuminate as follows.
 - a. The POWER light briefly illuminates red.
 - b. The POWER and SYSTEM lights illuminate green.
 - c. If the SYSTEM light goes out after a few seconds, the device can be used.
3. The device can be used when the controller POWER light and the LCD backlight are illuminated.

Note: The device can be used approximately eight seconds after turning the power on.

To turn the power off for the IS-TWL-DEBUGGER device, use the power switch on the back of the main unit.

4.3 Installing the Software

To install IS-TWL-DEBUGGER software onto a computer, log on to Windows as a user with an Administrator account on the computer.

1. Exit all currently running programs.
2. Download the IS-TWL-DEBUGGER software from the **TWL Downloads** page at <http://www.warioworld.com>.
3. Using Explorer, browse to the location to which the IS-TWL-DEBUGGER software was downloaded.
4. Open the IS-TWL-DEBUGGER folder and start installation by double-clicking IS-TWL-DEBUGGER_XXX.EXE (XXX represents the version).
5. Follow the displayed instructions.
6. If the installation program completes normally, the installation is complete.

If you are using IS-TWL-DEBUGGER with the CAPTURE OPTION, continue to install IS-TWL-CAPTURE software.

7. Download the IS-TWL-CAPTURE software from the **TWL Downloads** page at <http://www.warioworld.com>.
8. Using Explorer, browse to the location to which the IS-TWL-CAPTURE software was downloaded.

9. Open the IS-TWL-CAPTURE folder and start installation by double-clicking
IS-TWL-CAPTURE_XXX.EXE (XXX represents the version).

10. Follow the displayed instructions.

If the installation program completes normally, the installation is complete.

If requested, restart the computer after installation completes.

4.4 Uninstalling the Software

To uninstall the IS-TWL-DEBUGGER or the IS-TWL-CAPTURE software from a computer, log on to Windows as a user with an Administrator account on the computer.

1. If the IS-TWL-DEBUGGER software to uninstall is running, exit the software.
2. In Control Panel, click **Programs and Features** to open the **Remove or Change Programs** dialog box. (For Windows XP, click **Add or Remove Programs** to display the **Add or Remove Programs** dialog box.)
3. Select IS-TWL-DEBUGGER from the list of installed programs.
4. Click **Delete** to start deleting the IS-TWL-DEBUGGER software. If deletion completes normally, the IS-TWL-DEBUGGER software has been uninstalled.
5. To continue and uninstall the IS-TWL-CAPTURE software, select IS-TWL-CAPTURE from the list of installed programs.
6. Click **Delete** to start deleting the IS-TWL-CAPTURE.

Option settings and window position information are not deleted by uninstalling. For this reason, the last state can be used even when uninstalling and installing to upgrade the IS-TWL-DEBUGGER software.

To delete this information, delete the following two items after confirming that the IS-TWL-DEBUGGER and the IS-TWL-CAPTURE software are not running.

IS-TWL-DEBUGGER Software

- Delete the following key and everything below it from within the registry editor:

HKEY_CURRENT_USER\Software\INTELLIGENT SYSTEMS\IS-TWL-DEBUGGER

- Delete the following folder from within Explorer:

C:\Documents and Settings\<user name>\Application Data\INTELLIGENT
SYSTEMS\IS-TWL-DEBUGGER

IS-TWL-CAPTURE Software

- Delete the following key using the registry editor.

HKEY_CURRENT_USER\Software\INTELLIGENT SYSTEMS\IS - TWL - CAPTURE

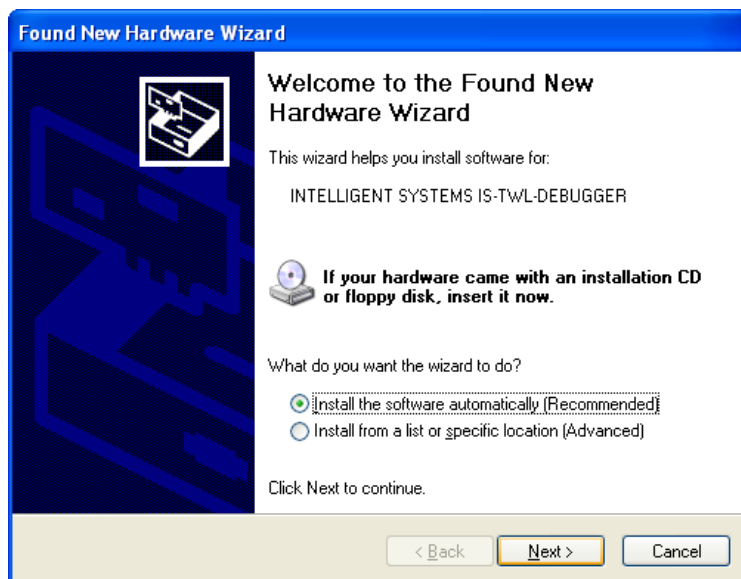
If you make a mistake while editing the registry or accidentally delete the wrong folders, Windows may not run. Use caution when performing the above actions and do so after backing up data or creating a restore point to allow a system restore.

4.5 Installing Device Drivers

Device drivers must be installed when first connecting the IS-TWL-DEBUGGER device to a computer or when first connecting it to a different USB port.

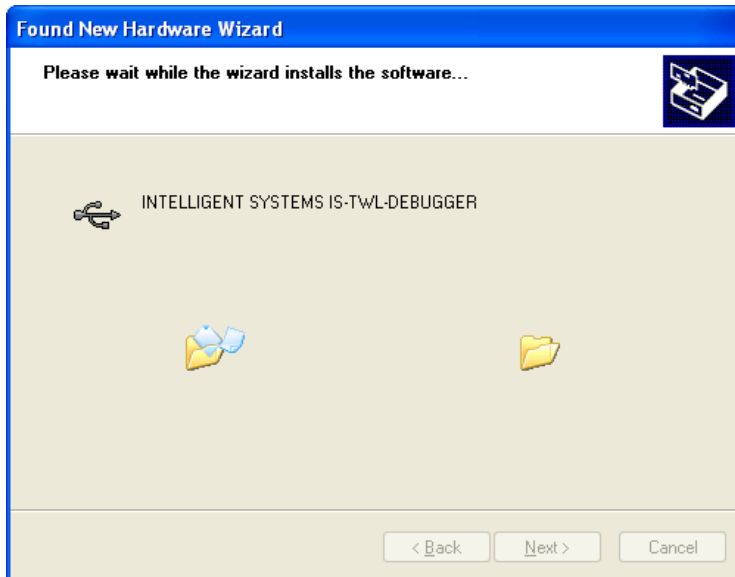
When the IS-TWL-DEBUGGER hardware is turned on, the **Found New Hardware Wizard** starts and displays a dialog box that prompts for the installation of a device driver.

Figure 4-1 Found New Hardware Wizard: Welcome Dialog Box



1. Download the drivers from the **TWL Downloads** page at <http://www.warioworld.com>.
2. Select **Install the software automatically (Recommended)** and then click **Next**.
3. Please wait. When the software install begins, the dialog box in Figure 4-2 appears.

Figure 4-2 Found New Hardware Wizard: Installation Dialog Box



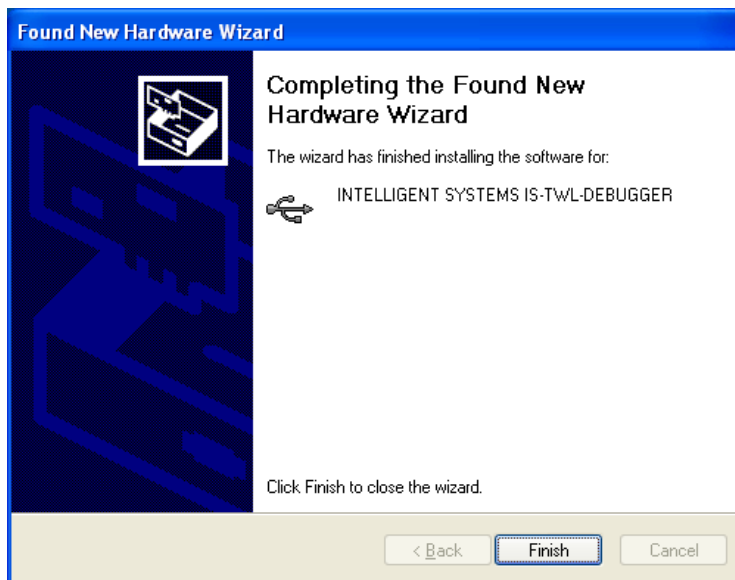
4. The dialog box in Figure 4-3 appears during installation. Click **Continue Anyway** to continue installation.

Figure 4-3 Found New Hardware Wizard: Compatibility Dialog Box



5. When the **Found New Hardware Wizard** completes installation normally, the dialog box in Figure 4-4 appears. Click **Finish** to close the wizard.

Figure 4-4 Found New Hardware Wizard: Completion Dialog Box



5 Support

Nintendo provides support for IS-TWL-DEBUGGER users on its website and by e-mail.

Website

Information and documents regarding IS-TWL-DEBUGGER and the latest software versions are available on the Nintendo Software Development Support Group (SDSG) website (<http://www.warioworld.com>). Only those registered in the website's Nintendo DS group can access and download the latest software versions. Register online at <http://www.warioworld.com>.

E-Mail Support

For questions and comments about IS-TWL-DEBUGGER, please contact the Software Development Support Group at support@noa.com.

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