IS-CTR-Debugger Setup Manual

2012/03/23

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1 Package Contents

1.1 IS-CTR-DEBUGGER

The package for the IS-CTR-DEBUGGER should contain the following items.

- IS-CTR-BOX (1)
- CTR for EMULATOR (Dedicated test unit for IS-CTR-BOX, henceforth called the test unit) (1)
- CTR for EMULATOR cable (1)
- Nintendo 3DS™ stylus (1, stored in the test unit)
- AC adapter (for Wii) (1)
- USB cable (1)
- Dedicated IS-CTR-BOX stand (1, includes 2 fastening screws)
- CTR for EMULATOR connector cap (1)
- INTELLIGENT SYSTEMS Development Kit for CTR (1)
- License agreement (1)
- Setup manual (this manual) (1)
- Ferrite cores (made by Seiwa Electric Mfg. Co., Ltd.) (2)

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2 Using This Product Safely

2.1 Warnings

To use an IS-CTR Series unit 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.

2.2 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
German	Hiermit erklärt INTELLIGENT SYSTEMS CO.,LTD., dass sich *dieser/diese/dieses* IS-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMWi)
	Hiermit erklärt INTELLIGENT SYSTEMS CO.,LTD. die Übereinstimmung des Gerätes IS-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX 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-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Maltese	Hawnhekk, INTELLIGENT SYSTEMS CO.,LTD., jiddikjara li dan IS-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Estonian	Käesolevaga kinnitab INTELLIGENT SYSTEMS CO.,LTD. seadme IS-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
Hungarian	Alulírott, INTELLIGENT SYSTEMS CO.,LTD. nyilatkozom, hogy a IS-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.
Slovak	INTELLIGENT SYSTEMS CO.,LTD. týmto vyhlasuje, že IS-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Czech	INTELLIGENT SYSTEMS CO.,LTD. tímto prohlašuje, že tento IS-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Slovene	Šiuo INTELLIGENT SYSTEMS CO.,LTD. deklaruoja, kad šis IS-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Lithuanian	Šiuo INTELLIGENT SYSTEMS CO.,LTD. deklaruoja, kad šis IS-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Latvian	Ar šo INTELLIGENT SYSTEMS CO.,LTD. deklarē, ka IS-CTR-DEBUGGER/IS-CTR-EMULATOR/IS-CTR-BOX atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

3 Special Notes

3.1 Notes

Note the following when using IS-CTR Series products.

- Do not turn off the IS-CTR-BOX during firmware updates. The IS-CTR-BOX may not function properly afterward.
- During use, do not do anything that would prevent heat dissipation, such as blocking the vent on the side of the IS-CTR-BOX, placing the IS-CTR-BOX in a closed container, or placing objects on top of the IS-CTR-BOX.
- When connecting the test unit to the IS-CTR-BOX, connect the side of the cable that has the green-colored band to the IS-CTR-BOX, and connect the side with the black band to the test unit. Be sure to tighten the screws so the cable is securely fastened at both ends. Damage may result if the cable connection is loose.
- When the test unit is sent to Nintendo for repairs or to add features, the System Menu is initialized. Please back up your data and System Settings before sending in the device. Also, reconfigure the device after it is returned and before using it.
- On the test unit LCD screen 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.
- CTR for EMULATOR contains encryption functions. Please check local export control laws before exporting this product.
- Properly shielded and grounded cables and connectors must be used for connection to host computers and/or peripherals in order to meet FCC emission limits. The ground cable must be less than 3m.
- When you detach the test unit, for safety always attach the CTR for EMULATOR connector cap.

3.2 End-of-Life Equipment Disposal

The crossed-out wheeled bin symbol in Figure 3-1 is affixed to all electrical and electronic equipment that has been put into the European market by Nintendo on or after August 13, 2005.

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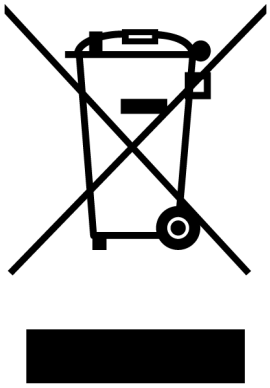
Figure 3-1 Disposal Symbol



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.

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4 Operating Environment

4.1 Requirements

The following components are required to operate IS-CTR series products.

Table 4-1 Operating Environment Requirements for IS-CTR Series

Component	Description
Computer	PC/AT-compatible
Operating system	Supports the following operating systems: • Microsoft Windows 7 32-bit and 64-bit versions • Microsoft Windows Vista, Service Pack 2 or later (32-bit and 64-bit versions) • Microsoft Windows XP, Service Pack 3 or later (32-bit)
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
Display	XGA display with a 1024x768 resolution or higher
USB interface	One port required. USB 2.0 is recommended for high-speed downloads.
Software environment	The following software must be installed: • Microsoft Windows Installer version 3.1 or later • Microsoft .NET Framework version 3.5 SP1 or later

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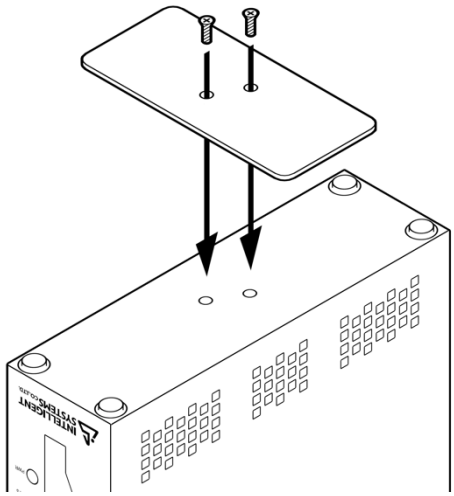
5 Setup

5.1 Attaching the Stand to IS-CTR-BOX

Follow this procedure to attach the dedicated stand to IS-CTR-BOX.

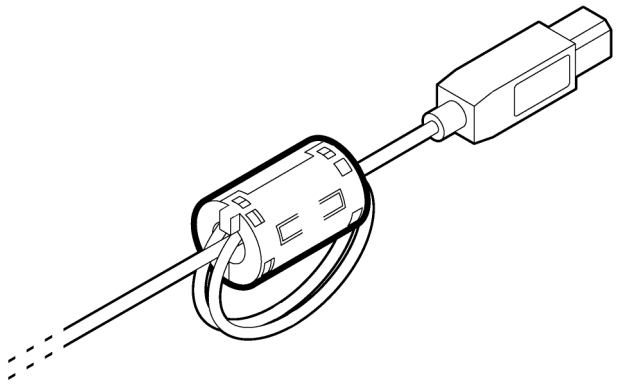
Table 5-1 Attaching the Stand to IS-CTR-BOX

Step	Illustration
1. Turn IS-CTR-BOX upside down and attach the stand as shown in the figure.	

5.2 Attaching the Ferrite Cores

Follow this procedure to attach the ferrite cores.

Table 5-2 Attaching the Ferrite Cores

Step	Illustration
2. Attach a ferrite core to the USB cable. Loop the cable through the core twice, as shown in the figure, leaving about 5 centimeters or 2 inches from the USB-B connector.	

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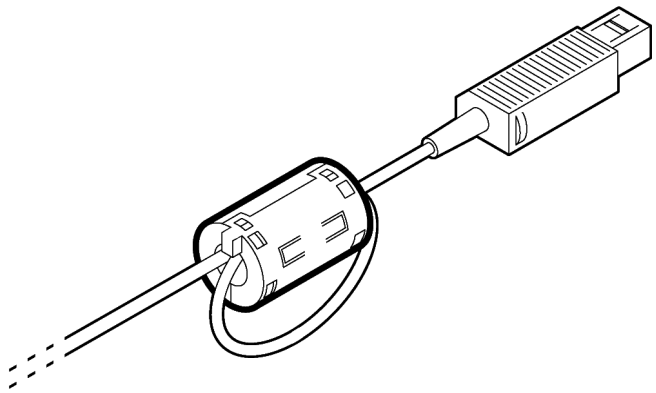
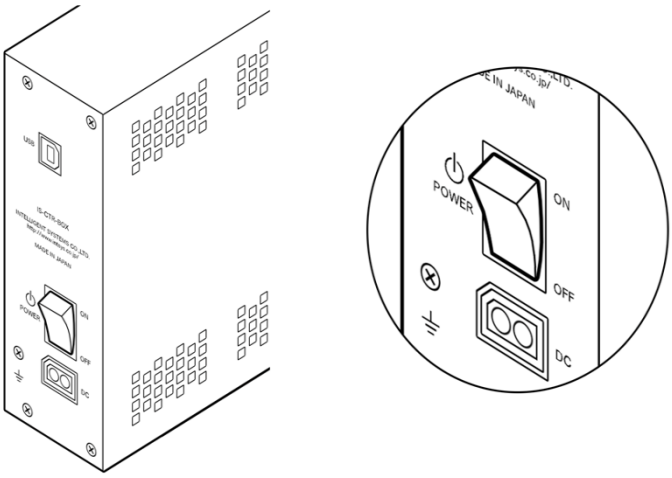
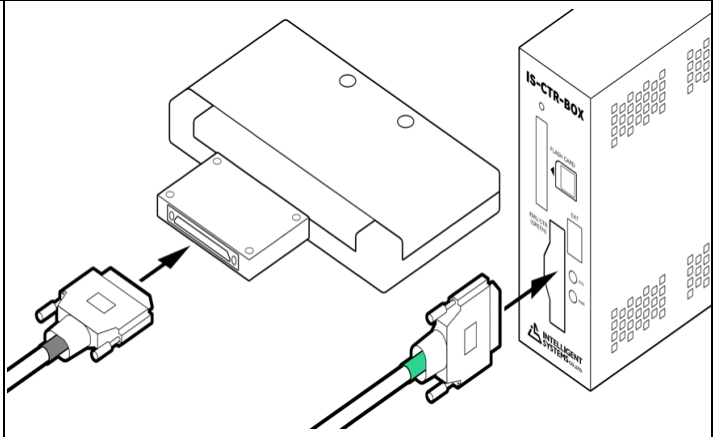
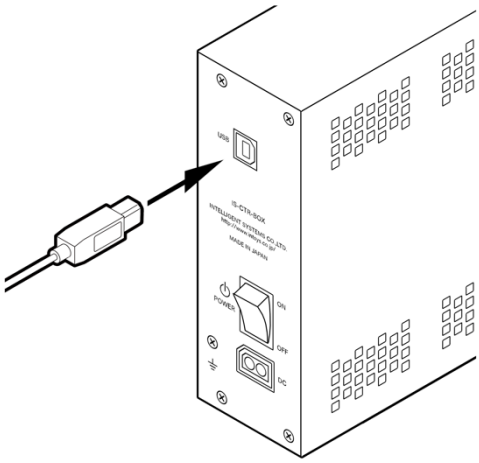
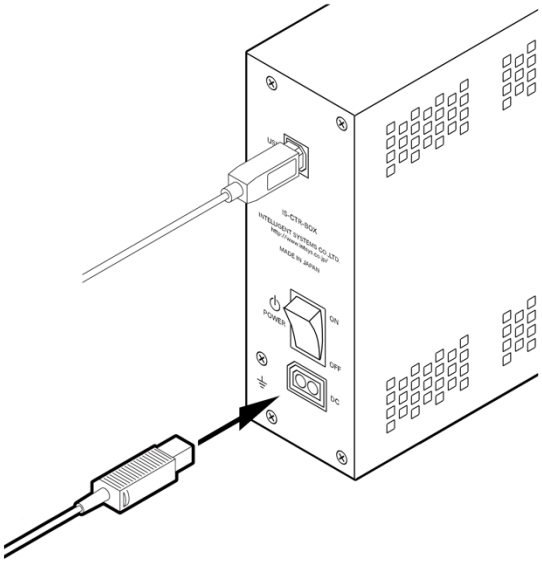
Step	Illustration
3. Attach a ferrite core to the AC adapter cord. Loop the cable through the core once as shown in the figure, leaving about 5 centimeters or 2 inches from DC connector.	

5.3 Connecting the Hardware

Set up the hardware using the following procedures.

Table 5-3 Setup Procedure for the Hardware

Step	Illustration
1. Check that the power switch on the IS-CTR-BOX is off.	

Step	Illustration
2. For IS-CTR-DEBUGGER/EMULATOR (See step 3 below for IS-CTR-BOX) Connect the test unit to IS-CTR-BOX. Connect the cable connector that has the green-colored band to the IS-CTR-BOX, and connect the end that has the black band to the test unit. Be sure to tighten the connector screws.	
3. Connect IS-CTR-BOX to the computer using the USB cable.	
4. Connect the DC plug of the AC adapter to the DC connector on the back of the IS-CTR-BOX. 5. Connect the AC plug of the AC adapter to an AC socket (AC 100V).	

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5.4 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 IS-CTR-BOX.
2. The POWER and SYSTEM lights on the front of the IS-CTR-BOX illuminate as follows.
    a. The POWER light briefly illuminates red.
    b. The POWER and SYSTEM lights illuminate green.
    c. The SYSTEM light goes out.
3. The device can be used when the POWER light and the LCD backlight are lit on the test unit.

To turn the power off, turn off the power switch on the back of the IS-CTR-BOX.

If a test unit is connected to the IS-CTR-BOX, the power to the test unit will automatically turn off. So there is no need for any special operation.

5.5 Installing the Software

To install the 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-CTR Software Package from the support website (see section 6.1 Website for details).
3. Run the `.exe` file that was downloaded.
4. Follow the displayed instructions to proceed with the installation.
5. If the installation program terminates without an error, the installation of the IS-CTR Software Package software is complete.

If requested, restart the computer after installation completes.

5.6 Uninstalling the Software

To uninstall the software from a computer, log on to Windows as a user with an Administrator account on the computer.

1. If the 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. From the list of installed programs, select **IS-CTR Software Package**.
4. Click **Delete** to start deleting IS-CTR Software Package.

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Option settings and window position information are not deleted by uninstalling. For this reason, even when you uninstall and then reinstall the software for an upgrade, you can still use the software in the last state it was in before the uninstall. If you want to delete this information, first confirm that neither IS-CTR-DEBUGGER, IS-CTR-EMULATOR nor IS-CTR-MONOWRITER is running and then delete the following items:

IS-CTR Software Package

1. Using Microsoft Registry Editor (regedit.exe) delete the following key and everything below it:
   - `HKEY_CURRENT_USER\Software\INTELLIGENT SYSTEMS\IS-CTR-DEBUGGER`
2. If you are running Windows XP, from Windows Explorer, delete the following folder:
   `C:\Documents and Settings\<user name>\Application Data\INTELLIGENT SYSTEMS\CTR-DEBUGGER`
   If you are running Windows 7 or Windows Vista, from Windows Explorer, delete the following folder:
   `C:\Users\<user name>\AppData\Roaming\INTELLIGENT SYSTEMS\IS-CTR-DEBUGGER`

If you make a mistake while editing the registry or accidently 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.

5.7 Installing Device Drivers

You must install the device drivers when (1) you connect the IS-CTR-BOX to a computer for the first time or (2) when you connect it to a different USB port on the same computer.

5.7.1 For Windows XP

1. Install the CTR Software Package software before connecting the device.

2. If the **Found New Hardware Wizard** appears as shown below, select **No, not this time** and click **Next**.

Figure 5-1 Found New Hardware Wizard: Welcome Dialog Box

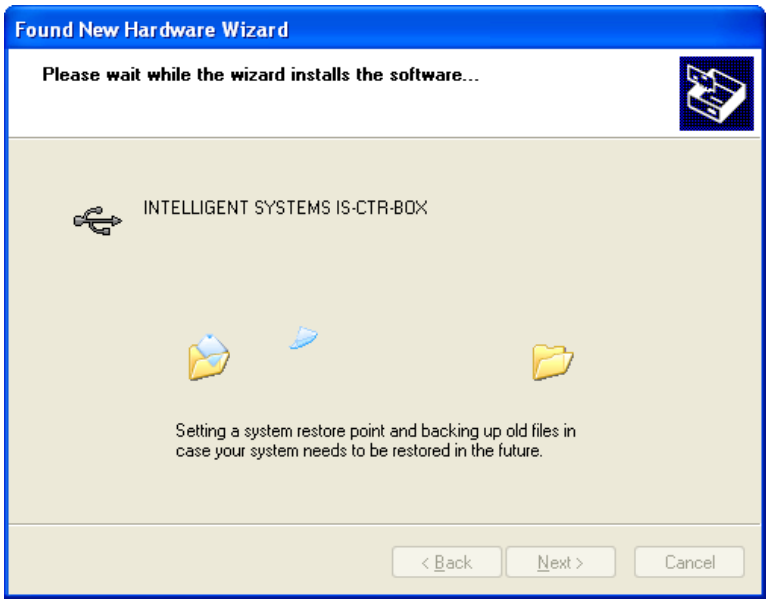
3. Turn on the power switch to the IS-CTR-BOX and the **Found New Hardware Wizard** should display with a prompt to install the device driver.

Figure 5-2 Found New Hardware Wizard: Welcome Dialog Box

4. Select **Install the software automatically (Recommended)** and then click **Next**.

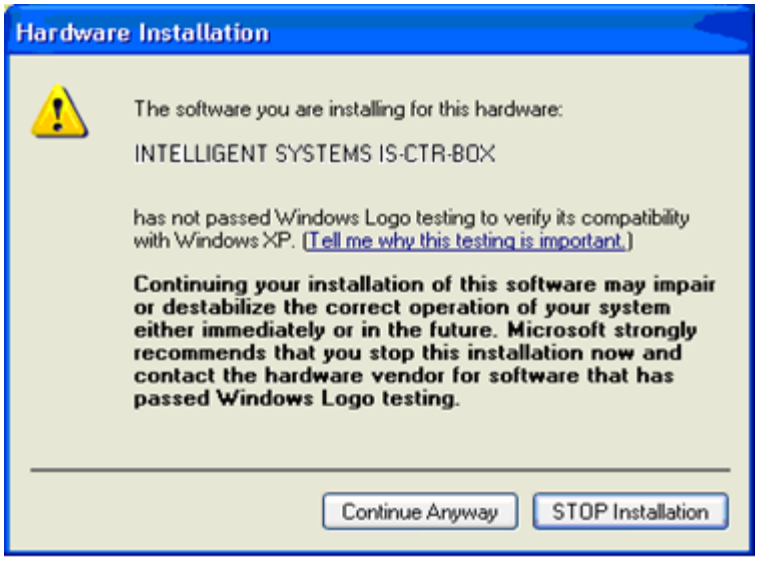
5. Please wait. When the software install begins, the dialog box in Figure 5-3 appears.

Figure 5-3 Found New Hardware Wizard: Installation Dialog Box



6. The dialog box in Figure 5-4 may appear during installation. Click **Continue Anyway** to continue installation.

Figure 5-4 Found New Hardware Wizard: Compatibility Dialog Box



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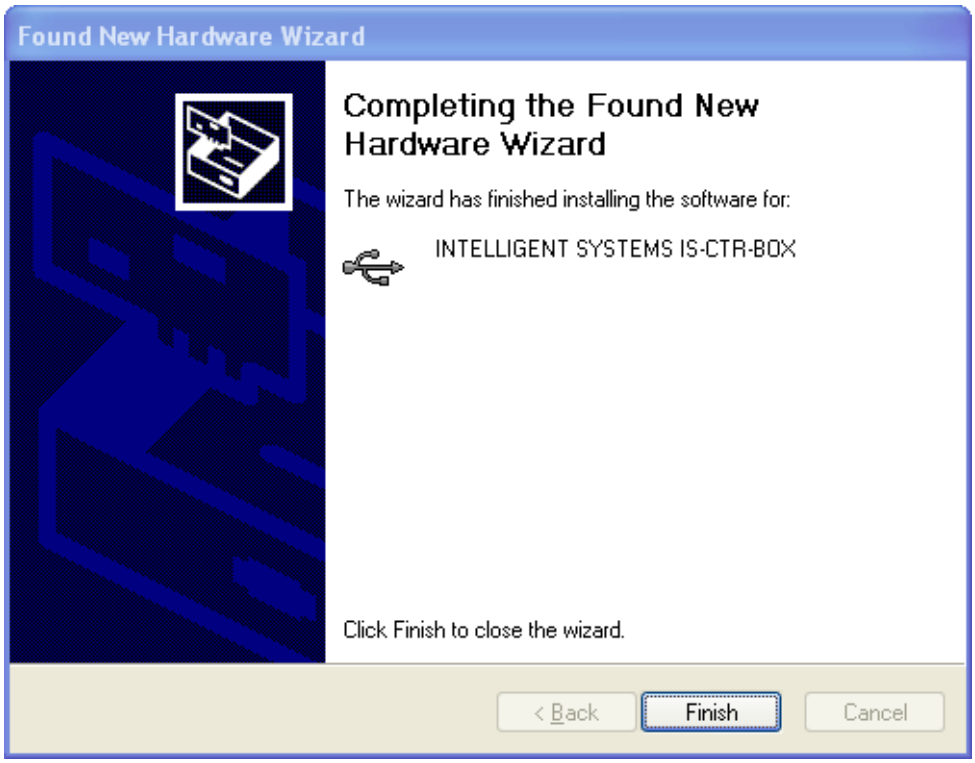
7. When the **Found New Hardware Wizard** completes installation normally, the dialog box in Figure 5-5 appears. Click **Finish** to close the wizard.

Figure 5-5 Found New Hardware Wizard: Completion Dialog Box



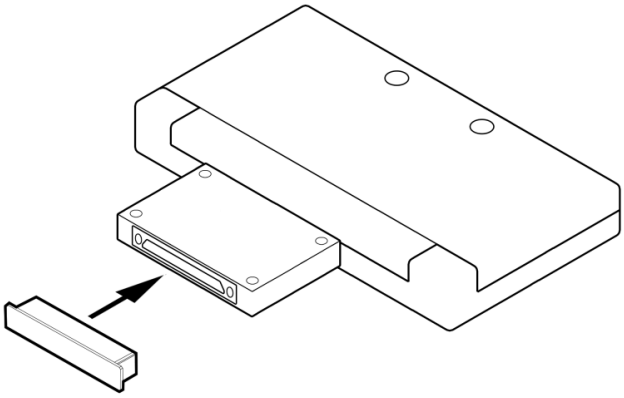
5.7.2 For Windows 7 and Windows Vista

The drivers will install automatically when the software is installed.

5.8 Attaching the CTR for EMULATOR Connector Cap

When you detach the test unit, follow the procedure below to attach the connector cap.

Table 5-4 Attaching the Connector Cap

Step	Illustration
1. Detach the test unit and attach the cap as shown in the illustration. The cap can be put on with either side up, so simply push it in to attach it.	

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6 Support

Nintendo provides support to users of IS-CTR-Series products on its website and by e-mail.

6.1 Website

Information and documents regarding the IS-CTR-Series 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 3DS group can access and download the latest software versions. Register online at http://www.warioworld.com.

6.2 E-Mail Support

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

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Revision History

Revision Date	Description
2012/03/23	Added section 5.8 Attaching the CTR for EMULATOR Connector Cap.
2011/11/14	Initial version.

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