Installation and Configuration Guide

WT1700 Bluetooth Adaptor

WebTech Wireless Inc.

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Status

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Contact Information

If there are any questions contact WebTech Wireless Technical Support:

❑ email: support@webtechwireless.com
❑ Phone: 604-419-8163 or 1-866-287-0135 option 3

If you have any comments or suggestions regarding this document please send an email to:

❑ documentation@webtechwireless.com

Updated versions of this manual are available on the customer portal at www.webtechwireless.com.

What is the WT1700 Bluetooth Adaptor?

Bluetooth is a low range power application enabling wireless connection to items including laptops and personal digital assistants (PDAs). The WT1700 is a Bluetooth adaptor (a dongle), which can be used with the WT5000 and WT6000 Locators to communicate with Bluetooth devices.

The WT1700 uses the Dial-up Networking Profile (DUNP). DUN provides a standard to access the Internet and other dial-up services with Bluetooth technology. Any device with DUNP will communicate with the WT1700 adaptor and a WebTech Locator.
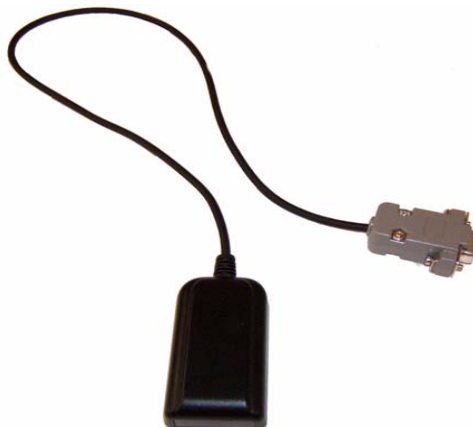

Figure 1-1   WT1700 Bluetooth Adaptor

This guide explains

❑ How to install the WT1700 adaptor with a WT5000 or WT6000 Locator

❑ How to configure a PDA, Intermec device or laptop for use with the WT1700 adaptor/Locator unit.

Note The WT1700 adaptor operates with only one Bluetooth device at a time - you cannot use the devices simultaneously. To switch from one device to another, move the one you don't want to use away from the adaptor or switch it off.

Bluetooth Security and Passkeys

In order to create a partnership between two Bluetooth wireless devices, a password (passkey) is exchanged between the two devices, e.g. the WT1700/Locator unit and the PDA/Intermec or laptop. The passkey entered must be the same for each Bluetooth device and can be up to 16 characters long.

The WT5000 or WT6000 Locator is shipped with a default passkey. This same passkey is entered during the PDA, Intermec, or laptop configuration process.

To change the Locator's default passkey (and therefore the PDA/Intermec or laptop passkey) contact WebTech Technical Support.

Naming Conventions

The WT1700 is shipped with a power/serial data cable for use specifically in a wireless environment. It is physically similar to the WT5000 power/serial data cable, which functions only in a wired environment.

Important Use the Bluetooth cable for all installations.

The following terms are used throughout the manual to distinguish between the different cables and components.

❑ **WT5000 cable:** WT5000 power/serial data cable (for use in a wired environment only)

❑ **WT6000 cable**: The black WT6000 multi-port data cable with primary and secondary serial connectors

❑ **Bluetooth cable**: WT1700 Bluetooth power/serial data cable (for use in a wireless environment)

❑ **WT1700 adaptor**: The WT1700 Bluetooth adaptor hardware device

❑ **WT1700 adaptor/Locator unit**: When the WT1700 adaptor is attached to the Locator and the Locator installed in a vehicle, the two pieces of hardware are called a unit.

Locator Installation Documents

Refer to the installation guide shipped with the Locator for detailed instructions to install a WebTech Locators into a vehicle.

❑ *WT5000 Installation Guide* - document #01100-0535
❑ *WT6000 Installation Guide* - document #20100-0162

If the WT1700 adaptor is sent separately from the Locator, navigate to the Quadrant Portal on www.webtechwireless.com to download the installation documents, or contact Technical Support for assistance.

Installation Requirements

Equipment Included

The WT1700 Bluetooth adaptor is shipped with:

❑ An installation guide

❑ **An information sheet (see XXX for an example) (*confirm that it is shipped with one?*)**

❑ A Bluetooth power/serial data cable for use in a wireless environment (the Bluetooth cable)

Equipment Required

❑ A WebTech Locator (WT5000 or WT6000)

❑ The Bluetooth device to be configured for use with the WT5000 or WT6000 WebTech Locator (e.g. PDA, Intermec device, or a laptop).

Module 2
Installing a WT1700 Bluetooth Adaptor with a WT5000 Locator

Figure 2-1   WT5000 Locator

Installation Restriction

Avoid enclosing the Bluetooth adaptor near metal

When installing the WT1700 adaptor with a Locator in a vehicle, do not enclose near metal. Metal interferes with the signal strength and prevents the Bluetooth device from operating correctly.

Bluetooth Cable versus WT5000 Cable

Important   The WT1700 is shipped with a power/serial data cable (the Bluetooth cable) for use specifically in a wireless environment.

❑   The Bluetooth cable is physically similar to the WT5000 power/serial data cable. The WT5000 cable is spare and is not used with the WT1700 adaptor.

If a WT5000 is already installed in a vehicle, remove the WT5000 cable and replace it with the Bluetooth cable. Ensure the Locator is re-connected correctly to the vehicle (refer to the *WT5000 Installation Guide*).

Figure 2-2   A WT5000 Power/Serial Data Cable

Installing the WT1700 and WT5000 into a Vehicle

1. Connect the Bluetooth cable (male DB9 connector) to the WT5000 (female DB9 port).

2. Connect the WT1700 Adaptor (female DB9 port) to the Bluetooth cable RS232 interface (male DB9 connector).

3. Install the WT5000 Locator into the vehicle using the Bluetooth cable. Refer to the *WT5000 Installation Guide* for detailed instructions.
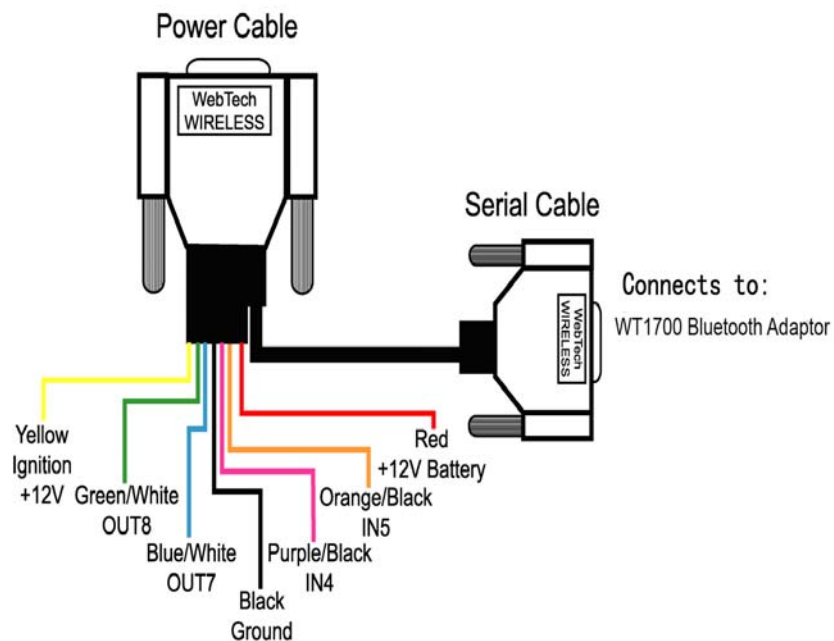

Figure 2-3   WT5000 Power/Serial Data Cable

Installing a WT1700 Bluetooth Adaptor with a WT6000 Locator

Important   The WT1700 Bluetooth power/serial cable must be wired to the WT6000 multi-port data cable and NOT directly to the vehicle.

Note   The ground and battery wires on the WT1700 power/serial data cable are connected to the WT6000 multi-port data cable ground and battery wires respectively.The WT1700 ignition wire is NOT connected to the WT6000.

Figure 2-4   WT6000 Locator

Installation Restriction

Avoid enclosing the Bluetooth adaptor near metal

When installing the WT1700 adaptor with a Locator in a vehicle, do not enclose near metal. Metal interferes with the signal strength and prevents the Bluetooth device from operating correctly.

Installing the WT1700 and WT6000 into the Vehicle

Important   The ignition (yellow) wire on the Bluetooth cable is not used.

1. Connect the WT1700 adaptor to the Bluetooth cable (RS232 female DB9 connector).

2. Connect the Bluetooth cable (DB9 male connector) to the WT6000 cable primary port.

3. Connect the battery (red) wire on the Bluetooth cable to the battery (red) wire on the WT6000 cable.

4. Connect the ground (black) wire on the Bluetooth cable to the ground (black) wire on the WT6000 cable.

5. Once the Bluetooth cable is wired to the WT6000 cable, follow the *WT6000 Installation Guide* to connect the battery (red), ground (black) and ignition (yellow) wires of the WT6000 cable to the vehicle.
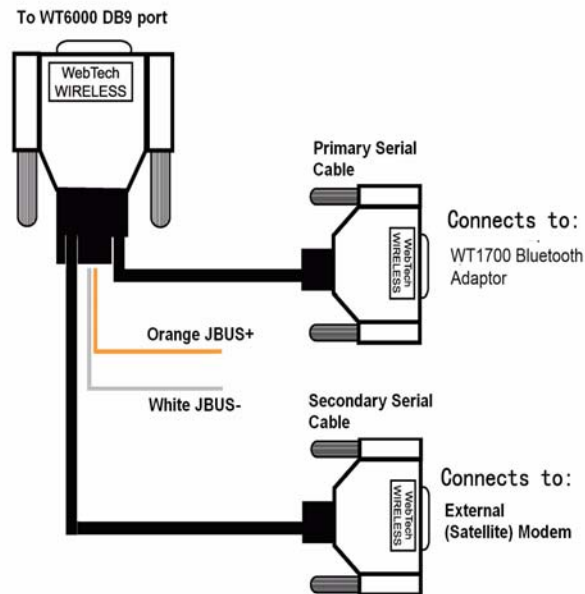

Figure 2-5   WT6000 Multi-Port Cable

Module 3
Configuring a WT1700 with Bluetooth Devices

Note   The WT1700 adaptor operates with only one Bluetooth device at a time, i.e. either a PDA or a laptop.To switch from one device to another......

Configuring a PDA or Intermec Device to Communicate with the Internet

The following generic description explains how to configure a PDA or Intermec device to use with the WebTech WT1700 Bluetooth adaptor and a WebTech WT5000 or WT6000 Locator. The description is based on Microsoft® Windows Mobile™ software Version 5.0.

Required PDA/Intermec Settings

❑   Ensure the WT1700 adaptor is connected to the Locator and the Locator has a power source

❑   The PDA/Intermec Bluetooth setting must be turned on

❑   Enter a **new modem connection name**, e.g. WT1700BT

❑   Choose a **Bluetooth** modem

❑   Choose the **WebTech BT** device

❑   Set the **Baud rate** to **115200**

❑   Set **Port Settings>Connection Preferences** as follows

   a.   Data Bits = **8**

   b.   Parity = **None**

   c.   Stop Bits = **1**

   d.   Flow Control = **None**

❑   Uncheck the **Terminal** boxes (e.g. ensure **Use terminal before connecting**, **Use terminal after connecting**, and **Enter dialing commands manually** boxes are NOT selected)

❑   Uncheck the **Waiting for Dial Tone** box

❑   When prompted, enter **any phone number** and **any area code**

❑   Enter passkey **0000**

❑   Use a **specific server address** and enter the **DNS**
   You can enter the IP address of your own DNS, or use the WebTech DNS: 204.244.249.106

Step 1: Creating a Partnership between the PDA/Intermec and the Locator

Important   Make sure the WT1700 adaptor is connected to the Locator and the Locator has a power source.

1. From the PDA/Intermec main menu, tap **Start>Settings**.

2. Select the **Connections** tab from lower part of the screen.

3. Tap **Bluetooth**.
    Check the **Turn on Bluetooth** box.

4. Tap **OK**.

5. From the same Connections tab, tap **Connections**.

6. Under **My ISP**, tap **Add a new modem connection**.

7. Enter a connection name, e.g. **WTW1700**.

8. Select **Bluetooth** from the **Select a modem** drop down list.

9. Tap **Next**.

10. Tap **New Partnership**.
    The **Select a Bluetooth Device** screen opens and the PDA/Intermec scans for Bluetooth devices in the vicinity.

11. Select **WebTech BT.**
    If the WebTech BT device is not listed, tap **Refresh** to search for the device again. Check the connection and that the Locator has a source of power.

12. Tap **Next**.

13. In the **Passkey** box enter **0000** (four zeros).

14. Tap **Next**.

15. Check the **Dialup Networking** box.

16. Tap **Finish**.
    The **My Connections** screen opens with a list including the new **WebTech BT** partnership.

Step 2: Configuring the Connection Task Settings

1. Select the new **WebTech BT** partnership.

2. Tap **Next**.
    The system prompts you for a number to dial.

3. Enter any number into the box. Note that a number MUST be entered for the connection to work.

4. Tap **OK**.

5. Tap **Next**.

6. In the next screen, leave the **User Name**, **Password** and **Domain** boxes empty.

7. Tap **Advanced**.
   The **General** settings tab opens.

8. From the **Baud rate** drop down list, select **115200**.

9. Uncheck the **Wait for dial tone before dialing** box.

10. Tap the **Port Settings** tab.

11. Set the **Connection Preferences** as follows:

    a. Data Bits = **8**

    b. Parity = **None**

    c. Stop Bits = **1**

    d. Flow Control = **None**

12. Under **Terminal,** uncheck all boxes.

13. Tap **Servers** tab.

14. Select **Use specific server address**.

15. Enter **DNS**.
    You can enter the IP address of your own DNS, or use
    204.244.249.106

16. Tap **OK.**

17. Tap **Finish**.
    The **Task** tab of the **Connections** screen opens.

Step 3: Configuring the Connection Advanced Settings

1. From the **Connections** screen, tap the **Advanced** tab.

2. Tap **Select Networks**.

3. Under **Network Management**, ensure **My ISP** is selected from the **Programs that automatically connect to the Internet should connect using** drop down list.

4. Tap **OK**.

5. Select **Dialing Rules**.

6. Ensure that the **Use dialing rules** box is unchecked.

7. Tap **OK** three times to close the **Settings** screen.
   The PDA or Intermec device is now configured to the WT1700/Locator unit.

Step 4: Test the Bluetooth Connection

1. From the PDA/Intermec main menu, tap **Start>Settings**.

2. Select the **Connections** tab from the lower part of the screen.

3. Tap **Manage existing connections**.

4. Tap and hold the new connection (e.g. WT1700).

5. Select **Connect**.

6. Tap **OK**.
   If the connection is working, a small two way arrow icon is displayed in the top center of the PDA screen.

   a. Tap this icon and a **Connectivity** window opens.
      A timer counts down to indicate how long the connection has been open.

   b. Tap **Hide**.

7. Tap **Start>Internet Explorer**.

   a. If Internet Explorer launches and a web page opens, then the PDA/Intermec is configured with the WT1700 Bluetooth adaptor.

   b. If the webpage does not open, refer to Appendix B -Troubleshooting for a list of potential solutions.

Note   To disconnect the PDA, tap the two way arrow icon and select **Disconnect.** The icon changes to a two way arrow with a "x" and the device is disconnected.

Laptop Configuration

The following generic description explains how to configure a Laptop to use with the WebTech WT1700 Bluetooth adaptor and a WebTech WT5000 or WT6000 Locator. The steps described are based on a Windows XP, Service Pack 2 operating system.

Required Laptop Settings

❑ Ensure the WT1700 adaptor is connected to the Locator and the Locator has a power source

❑ The laptop must be Bluetooth compatible. It may be necessary to purchase a Bluetooth radio adaptor (transceiver)

❑ Use a **specific server address** and enter the **DNS**
You can enter the IP address of your own DNS, or use the WebTech DNS: 204.244.249.106

❑ When prompted, **enter any phone number -** a dial-up number must be entered for the Internet connection to work

❑ Enter passkey **0000**

Step 1: Adding a Bluetooth Device to the Laptop

1. Ensure the WT1700 adaptor is connected to the Locator and the Locator has a power source

2. If applicable, plug the Bluetooth radio adaptor (transceiver) into the USB port on your laptop.

3. Double click on the Bluetooth icon found in the lower right hand corner of your screen.
-OR-
Click **Start > Settings> Control Panel > Printers and Other Hardware**>**Bluetooth Devices**.

4. Select the **Devices** tab.

5. Click **Add**.
The **Add Bluetooth Device Wizard** opens.

6. Check the **My device is set up and ready to be found** box.

7. Click **Next**.

8. Select the Bluetooth device you want to add (**WebTech BT**).

9. Click **Next**.
The computer searches for Bluetooth devices in the vicinity. If the WebTech BT device is not found, you may have to search again.

10. Select **WebTech BT** device.

11. Click **Next**.

12. Select **Use the passkey found in the documentation**.

13. Enter **0000** (four zeros).

14. Click **Next**.

15. Click **Finish**.

16. Select **WebTech BT** device.

17. Select the **Devices** tab.

18. Click **Properties**.

19. Select the **Services** tab.
Confirm that the **Dial-up networking (DUN)** box is checked.

20. Make a note of the COM port (e.g. COM4).

21. Click **OK** twice to exit **Bluetooth devices** window.
The WebTech BT device is added to the **Bluetooth Devices** window.

Step 2: Setting the Network Connection's Properties

1. Click **Start > Settings> Control Panel >Network and Internet Connections>Network Connections.**

2. Select **Create a new connection** from the **Network Tasks** side bar.
The **New Connection Wizard** opens.

3. Click **Next**.

4. Select **Connect to the network at my workplace**.

5. Click **Next**.

6. Select **Dial-up connection**.

7. Click **Next**.

8. In the **Select a Device** window, select the Bluetooth modem/link which has the COM port you wrote down (e.g. COM4).
Uncheck any other modems in the list.

9. Click **Next**.

10. In the **Connection Name** window, type a Company Name or other name for the connection (e.g. WT1700).

11. Click **Next**.

12. In the **Phone Number to Dial** window, enter any phone number.
A number must be entered for the connection to work correctly.

13. Click **Next**.

14. Select **Do not use my smart card**.

15. Click **Next**.

16. Select **Anyone's use**.

17. Click **Next**.

18. Check the **Add a shortcut to this connection to my desktop** box.

19. Click **Finish**.
The **Connect *connection name (e.g.* WT1700)** window opens.

20. Click **Properties**.

21. Select the **Networking** tab.

22. Ensure the Internet Protocol (TCP/IP) box is checked.

23. Click **Properties**.

24. Select **Use the following DNS server addresses**.

25. In the **Preferred DNS server** box, type in your own DNS server address or use 204.244.249.106.

26. Click **OK** twice.

27. Click **Dial**.
    A Dial-up profile (e.g. WT1700) is added to the Network Connections window and it says it is **connected**.

28. Test the connection.
    From the desktop, open **Internet Explorer**.

    a. If a webpage opens, the you have successfully configured the laptop.

    b. If the webpage does not open, refer to Appendix B -Troubleshooting for a list of potential solutions.

29. Where applicable, remember to safely remove the Bluetooth radio adaptor (transceiver) from the USB port. You will need this adaptor every time you want to use the WT1700 Bluetooth adaptor with your laptop.

Appendix A
Troubleshooting Guide

If you are having difficulties connecting to the Internet from your PDA, Intermec device or laptop, try one of the following suggestions to resolve the problem. If your question is not listed, or the problem persists, contact WebTech Technical Support

❑ email: support@webtechwireless.com
❑ Phone: 604-419-8163 or 1-866-287-0135 option 3

WT5000 or WT6000 Locator Installation

Match the WT5000 Modem Speed to the WT1700 Adaptor

If the WT5000 is shipped separately from the WT1700, the modem speed may need to be matched and increased for the Bluetooth to communicate with the Locator.

Contact Technical Support to have the modem speed set over-the-air (OTA) to 115200.

Avoid enclosing the Bluetooth adaptor near metal

When installing the WT1700 adaptor with a Locator in a vehicle, do not enclose near metal. Metal interferes with the signal strength and prevents the Bluetooth device from operating correctly.

If you are having trouble connecting to the Internet, and none of the other solutions work, try re-positioning the adaptor and Locator away from metal enclosures.

PDA or Intermec Configuration

Check the Locator and WT1700 Unit

Ensure the WT1700 adaptor is connected to the Locator and the Locator has a power source.

Ensure Bluetooth Setting is ON

The PDA/Intermec Bluetooth setting must be turned on.

1. From the PDA/Intermec main menu, tap **Start>Settings**.

2. Select the **Connections** tab from lower part of the screen.

3. Tap Bluetooth.
   Check the **Turn on Bluetooth** box.

Confirm the PDA or Intermec Device is Configured Correctly

Refer to "Required PDA/Intermec Settings" on page 3-9 to confirm that the modem speed and other settings are correctly entered.

Reconfigure the PDA or Intermec

If the PDA or Intermec configuration does not work, try reconfiguring the PDA or Intermec device from the beginning. Before reconfiguring, delete any previous partnerships or modem connections created as follows.

Deleting Device Profiles (Partnerships)

4. On the PDA/Intermec main menu, tap **Start>Settings**.

5. Select the **Connections** tab from lower part of the screen.

6. Tap **Bluetooth**.

7. Select the **Devices** tab in the lower part of the screen.

8. Tap and hold down on the name of the new device previously added e.g. WT1700 BT

9. Select **Delete**.

10. Select **Yes**.
    The device partnership is deleted.

11. Return to "Configuring a PDA or Intermec Device to Communicate with the Internet" on page 3-9.

Deleting Modem Connections

1. On the PDA/Intermec main menu, tap **Start>Settings**.

2. Select the **Connections** tab from lower part of the screen.

3. Tap **Connections**.
   The **Connections window** opens.

4. Under **My ISP,** tap **Manage existing connections.**

5. Tap and hold on the previously created connection to delete (e.g. WT1700)

6. Select **Delete**.

7. Tap **OK** twice.
    The modem connection is deleted.

8. Return to "Configuring a PDA or Intermec Device to Communicate with the Internet" on page 3-9.

Laptop Configuration

Check the Locator and WT1700 Unit

Ensure the WT1700 adaptor is connected to the Locator and the Locator has a power source.

Check the Laptop is Bluetooth Compatible

The laptop must be Bluetooth compatible. You may need to purchase a a Bluetooth radio adaptor (transreceiver).

Check the Bluetooth Radio Adaptor (Transreceiver)

Some laptops require the Bluetooth radio adaptor (transreceiver) to work with Bluetooth devices. Check that the adaptor is plugged into the laptop's USB port. When the adaptor is working, the Bluetooth icon can

be seen in the lower right hand corner of the screen .

Confirm the Laptop is Configured Correctly

Refer to "Required Laptop Settings" on page 3-13 to confirm that the settings are correctly entered.

Confirm the COM Port is the Same

Check that the COM port assigned when you added the Bluetooth device to the laptop ("Step 1: Adding a Bluetooth Device to the Laptop" on page 3-13) is the same as the COM port selected while setting the network properties ("Step 2: Setting the Network Connection's Properties" on page 3-14).

Reconfigure the Laptop

If none of these suggestions work, trying reconfiguring the laptop from the beginning.

Appendix B
Regulatory Information

Statement of the Federal Communications Commission (FCC)

15.21

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

15.105(b)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

❑ Reorient or relocate the receiving antenna.
❑ Increase the separation between the equipment and receiver.
❑ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
❑ Consult the dealer or an experienced radio/TV technician for help.

Operation is subject to the following two conditions:

1. This device may not cause interference and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

FCC RF Radiation Exposure Statement

This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.