









## *RFX9400*

## 用户指南

Starter's Guide

## RFX9400 用户指南

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## 独立模式



网络模式



## 安装须知

Pronto 无线延伸器是 Pronto 系统的重要组成部分,利用它可以在整个住宅范围内通过 RF 控制 A/V 设备。

为了在无线 Pronto 网络中使用延伸器, 您需要:

- 配置延伸器:将其连接到 PC,使用配置工具进行配置。
- 安装延伸器:将其连接到外部 A/V 设备,如电视和接收器。

延伸器使用方式有两种:

## 独立模式

该模式又称为"对等模式":不需要使用路由器。

#### 独立模式的优点:

- 容易安装和配置延伸器。
- 延伸器独立于其它网络和网络设置工作。

请参阅第4页上的"独立连接"一章,用独立模式配置延伸器。

注意 如果想要将多媒体服务器(如 Escient Fireball)与一个或多个延伸器结合使用, 则必须使用网络模式配置延伸器。

## 网络模式

这也称为"基础设施模式":即在具有路由器的网络中使用延伸器。

#### 网络模式的优点:

- 网络允许使用转发器,转发器可扩大 Pronto 系统的信号范围。
- 在使用专用 Pronto 网络时, 延伸器可独立于其它网络中的设置工作。
- 可以为网络模式下的延伸器指定一个固定 IP 地址, 以提高可靠性。
- 还可以对网络连接加密。

请参阅第4页上的"网络连接"一章,在网络模式下配置延伸器。

注意 已经在独立模式下配置的延伸器总是可以重新配置为在网络模式下使用, 反之亦然。 可以在同一个 Pronto 网络中使用 16 个不同的延伸器。

## 取出延伸器



## 配置延伸器

注意 在开始配置延伸器之前,请访问 www.pronto.philips.com,检查"下载"部分有无 可用的固件更新。 有关详细信息,请参阅第9页上的"固件更新"一章。

## 独立连接

执行以下操作. 配置独立延伸器:

- 1 插入延伸器电源适配器的插头。 延伸器将会启动。启动完成之后, 电源指示灯和 WiFi 指示灯会亮绿光。
- 2 使用延伸器的默认开关设置:



- 注意 • 如果已经有一个延伸器将 ID 设置为 0. 请将延伸器 ID 开关设置为尚未 使用的 ID。
  - 如果与住宅内部或周围的其它产品之间存在干扰,请将配置开关设置为 不同的 RF 频道。
  - 确保在延伸器和 Pronto 控制板上使用相同的延伸器 ID 和 RF 频道。
- **3** 配置控制板的配置文件,使控制板能够操控延伸器。有关详细信息,请参阅 ProntoEdit Professional 联机帮助。

## 网络连接

在使用网络连接时,延伸器是无线 Pronto 网络的一个组成部分。在网络中使用延伸 器有两种方式:

**有线**连接





- 使用有线网络连接向,电源指示灯和以太网指示灯壳绿元,在已处理 发出的代码或宏时,忙指示灯闪烁绿光。
- 使用无线网络连接时,电源指示灯和 WiFi 指示灯亮绿光,在它处理控制板发出的代码或宏时,忙指示灯闪烁绿光。



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#### 调节 IR 输出的功率大小

在延伸器背面,有4个拨码开关,每个对应一个IR输出。使用这些拨码开关, 配置使用双红外发射器和迷你插孔线缆时的功率大小。 例如,将延伸器连接到外部IR总线系统时,向下翻拨码开关可调低功率大小。

## 支持

## 故障种类和处理方法

指示灯的指示含义

指示灯 颜色	以太网指示灯	WiFi 指示灯	忙指示灯
绿色闪烁	正在确定延伸器的 IP 地址。	正在确定延伸器的 IP 地址。	延伸器正在忙于处理控制板 发出的短代码或宏。
绿色	延伸器功能正常。	延伸器功能正常。	延伸器正在忙于处理控制板 发出的长宏。
红色/绿色闪烁	-	-	正在配置延伸器。
红色	请参阅第 7 页上的 <i>"存在 IP 冲突</i> "主题。	请参阅第 8 页上的 <i>"延伸器无法与无线网络</i>	请参阅第8页上的"存在 重复的延伸器ID"主题。
红色闪烁	请参阅第 7 页上的 <i>"无法</i> <i>确定 IP 地址</i> "主题。	<i>通信"</i> 主题。	延伸器正在启动。 等待启动完成。

#### 存在IP冲突

在网络中有另一个 A/V 组件使用的固定 IP 地址与延伸器相同。在配置工具中更改 延伸器的 IP 地址。

如果问题仍然存在,请检查路由器设置。

#### 无法确定 IP 地址

- 在使用延伸器时:确保已使用以太网直线缆将延伸器连接到路由器。
- 在配置延伸器时:确保 PC 没有使用固定 IP 地址,而是使用 DHCP。

确保路由器开关已打开。如果路由器使用 DHCP,将无法确定延伸器的 IP 地址。
 确保在路由器上使用了正确的网络设置。

#### 延伸器无法与无线网络通信

#### WiFi 指示灯呈红色亮起

- 确保延伸器位于无线接入点的信号范围内。
- 确保在配置工具中输入了正确的保密信息。
- 将延伸器的 MAC 地址添加到路由器接受的 MAC 地址列表中。

#### WiFi 指示灯闪烁红光

- 检查路由器的网络设置,确保它能够与延伸器一起工作。
- 如果指示灯未停止闪烁,可以拔掉电源适配器插头,等几秒后再插入。

### 查找 A/V 组件 IR 接收器的准确位置

- 1 取下双红外发射器的保护带。
- 2 将双红外发射器的功率大小设置到最小,然后将其中一个发射器的粘合面放在 A/V 组件前面 0.4 - 0.8 英寸/1 - 2 厘米的位置。
- 3 确保已将控制板配置为与 A/V 组件一起工作。
- 4 将发射器移过 A/V 组件的前面板,同时使用控制板向 A/V 组件发送命令。 注意 A/V 组件在什么时候对发射器的 IR 信号有反应。
- 5 在 A/V 组件有反应时,即将发射器放在相应位置。

使用延伸器操作 A/V 组件

#### A/V 组件对延伸器发出的命令没有反应

- 检查使用控制板发送命令时忙指示灯是否呈绿色闪烁。如果忙指示灯不闪烁, 表明延伸器没有接收控制板发出的命令;
- 确保在 ProntoEdit Professional 中正确配置了控制板;
- 确保在配置工具中正确配置了延伸器,并且已正确连接到 A/V 组件;
- 确保正确设置了延伸器上的开关。
- 确保无线接入点已打开并且配置正确。
- 确保延伸器位于无线接入点的信号范围内。如果无线接入点的位置比延伸器高或低,则水平放置延伸器的天线,以获得最佳的信号范围。
- 并非所有无线接入点在与控制板结合使用时效果都一样好。确保使用优质的接入点。

#### 存在重复的延伸器 ID

使用延伸器 ID 开关,为同一 Pronto 网络中的每个延伸器指定唯一的 ID。 确保在 ProntoEdit Professional 中相应地配置了控制板。

可以在同一个 Pronto 网络中使用 16 个不同的延伸器。

#### 在控制板未使用时,忙指示灯将闪烁绿光

这并不表示延伸器存在问题。它只是表示其它控制板正在操作延伸器。当忙指示灯 停止闪烁时,您就可以重新使用延伸器了。 重置延伸器

仅在延伸器显示异常状况时,才有必要执行此操作。 要执行重置,请从电源插座上拔掉延伸器插头。等候几秒钟,再将其插上。

## ■固件更新

在有可用的延伸器固件更新时,会在飞利浦 Pronto 网站 <u>www.pronto.philips.com</u> 予以公布。

注意 您始终可以在配置工具中查看固件的当前版本。

- 1 在 PC 上下载固件的新版本。
- 2 拔掉延伸器插头。可以通过以下方法更新延伸器。

#### 使用配置线缆更新延伸器

- 1 使用配置线缆将延伸器连接到 PC 。
- 2 正确设置开关。

TI IN INC.	独立/网络	Network
OX 1000	配置开关	2
	► 延伸器 ID	0

- 3 打开浏览器。
- 4 在浏览器的地址栏中键入延伸器的 IP 地址: 192.168.8.80(印在延伸器背面)。 此时配置工具将在浏览器中打开。
- 5 在左导航窗格中选择 "Firmware Update"(固件更新)。 此时将打开"固件更新"页面。
- 6 按照屏幕上的说明操作。 在系统要求您浏览到更新文件时,您需要选择之前从网站上下载的 ZIP 文件。

#### 通过路由器更新延伸器

如果延伸器已经安装并且连接到 A/V 设备,则通过用以太网直线缆连接的路由器更 新该延伸器可能更方便。不能通过路由器以无线方式配置延伸器。

1 将延伸器连接到路由器,然后将路由器连接到 PC。

2 正确设置**开关**。

TI BE	▶ 独立/网络	Network
ex man	▶ 配置开关	3
	➤ 延伸器 ID	0

- 3 在 PC 上打开 ProntoEdit Professional。
- 4 在"工具"菜单中,选择"Extender Discovery"(延伸器发现)。 此时将打开延伸器发现工具,上面显示了在 Pronto 网络中检测到的所有延伸器 的列表。

- 5 选择您要配置的延伸器,然后单击 "Configure"(配置)按钮。 此时配置工具将在浏览器中打开。
- 6 在左导航窗格中选择 "Firmware Update"(固件更新)。 此时将打开"固件更新"页面。
- 7 按照屏幕上的说明操作。 在系统要求您浏览到更新文件时,您需要选择之前从网站上下载的 ZIP 文件。
- **提示** 如果延伸器发现工具**没有识别您的延伸器**,请按第 9 页上的说明,使用以太网 交叉线缆更新延伸器。

## 规格

此产品的规格和设计如有更改, 恕不另行通知。

一般信息	<ul> <li>深灰色 ABS 外壳,聚碳酸酯前面板</li> <li>符合 802.11 b/g 标准的 RF 技术</li> <li>4 个指示灯分别表示"电源"、"WiFi"、"网络"和"忙"</li> <li>一个系统中最多可以有 16 个延伸器和 16 个控制板(对于所有模式)</li> <li>4 个用于 IR 发射器的可寻址输出</li> <li>以太网 RJ45 连接可旋转 RF 天线</li> <li>放置:无需支撑物,可安装在任意位置</li> </ul>
模式	独立(无线): 与 WiFi 对等模式相似,无需接入点和路由器 网络(无线): 与 WiFi 基础设施模式相似;在有路由器和接入点的系统 中使用网络(通过以太网连接线缆):在有路由器和接入点的系统中使用
尺寸	3.98 x 6.18 x 1.3 英寸(101.2 x 157 x 33.5 毫米)
工作温度	32°F至122°F(0°C至50°C)
红外线 (IR)	IR 频率范围:25kHz-1MHz(包括 DC/Flash Code) IR 功率输出:2 个级别
无线电频率 (RF)	802.11g @ 2.4 GHz,具有附加专属协议
双红外发射器	IR 发射器数量: 最多 4 (2x2), 串联方式连接发射器 0.13 英寸(3.5 毫米)单一迷你插孔 线缆长度: 9 英尺(2.7 米)
单一迷你插孔线缆	0.13 英寸(3.5 毫米)单一迷你插孔 线缆长度:5 英尺(1.5 米)
电源适配器	100 V-240 V 交流/50-60 Hz 电源适配器(5 V 直流/2A 输出,UL-CE 认证)

#### Pronto 无线延伸器用户指南

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# 简体中文

## RFX9400 Starter's Guide

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#### Stand-alone Mode



Network Mode



## **Before You Start**

The Pronto Wireless Extender is an important element of the Pronto System and makes it possible to control A/V equipment via RF in the entire house.

In order to use the Extender in a wireless Pronto Network:

- **Configure** the Extender: connect it to the PC and use the Configuration Tool.
- Install the Extender: connect it to external A/V equipment, like a TV or receiver.

The Extender can be used in two ways:

## **Stand-alone Mode**

This is the so-called 'Ad-Hoc Mode': a router is not required.

#### Stand-alone Advantages:

- The Extender is easily configured and installed.
- It operates independently from other networks and network settings.

Refer to the chapter 'Stand-alone Connection' on page 4 to configure the Extender in Stand-alone Mode.

Note If you want to use a Multimedia server, like the Escient Fireball, in combination with one or more Extenders, the Extenders have to be configured in Network Mode.

## **Network Mode**

This is the so-called 'Infrastructure Mode': the Extender is used in a network with a router.

#### **Network Advantages:**

- A network allows the use of repeaters, which enlarges the range of the Pronto System.
- When using a dedicated Pronto Network, the Extender can operate independently from settings in other networks.
- The Extender in Network Mode can be given a fixed IP address, which increases reliability.
- The network connection can be encrypted.

Refer to the chapter 'Network Connection' on page 4 to configure the Extender in Network Mode.

Note An Extender that has been configured in Stand-alone Mode can always be reconfigured for use in Network Mode and vice versa. You can use up to 16 different Extenders in the same Pronto Network.



## **Configuring the Extender**

## **Stand-alone Connection**

To configure the Stand-alone Extender:

- Plug in the Extender's power adapter. The Extender will start up. When start-up has finished, the Power and WiFi LEDs are green.
- 2 Use the default switch settings of the Extender:

TI BAL	Stand-alone/Network	Stand-alone
ex man file	Configuration switch	1
	Extender ID	0

- **Note** If there is already an Extender with ID 0, set the Extender ID switch to an ID that is not used yet.
  - If there is any interference with other products in or around the house, the Configuration switch can be set to a different RF channel.
  - Make sure the same Extender ID and RF channel are used on the Extender and the Pronto Control Panel.
- 3 Configure the Control Panel's configuration file so that the Control Panel can work with the Extender. For more details, refer to the ProntoEdit Professional Online Help.

## Network Connection

In the case of a network connection, the Extender is made part of the wireless Pronto Network. There are two ways to use the Extender in a network:



Note Before you start configuring the Extender, check for firmware updates in the Downloads section on <u>www.pronto.philips.com</u>. Refer to the chapter 'Firmware Update' on page 9 for further details.



- For a **wired** connection, connect the Extender to the router by means of a straight Ethernet cable.
- For a **wireless** connection, you do not need to connect any more cables.
- 9 Set the switches correctly:

Stand-alone/Network	Network
Configuration switch	1
Extender ID	0

The Extender will restart. After startup,

- In a **wired** network connection, the Power and Ethernet LEDs are green and the Busy LED blinks green when it's processing a code or a macro from the Control Panel.
- In a wireless network connection, the Power and WiFi LEDs are green and the Busy LED blinks green when it's processing a code or a macro from the Control Panel.

ENGLISH



## Installing the Extender

Warning Keep the Extender away from heat sources such as amplifiers.

Before connecting the Extender to external A/V equipment, make sure that the antenna is placed correctly.

Place the \_\_\_\_\_ antenna in an upright position.



## **Connecting the Extender to A/V equipment**

For the Extender to transmit an IR signal, you need to connect it to the A/V component via the IR Output on the back of the Extender. In contrast to previous Philips Extenders, the RFX9400 has no IR blaster.

To connect the Extender to A/V equipment, use one of the following cables enclosed with the Extender:

• a Dual IR emitter;

Insert the mini-jack connector of the Dual IR emitter in the IR output of the Extender.

Attach the emitter to the infrared receiver of the A/V component.

#### -or-

• a mini-jack IR cable.

Insert one mini-jack connector of the minijack cable in the IR output of the Extender.



Insert the other mini-jack connector in the A/V component.

## Adjusting the Power Level of the IR Outputs

At the back of the Extender, there are 4 dipswitches, one for each IR output. Use these dipswitches to configure the power level of the Dual IR emitters and the mini-jack cables.

For example, flip the dipswitch down to lower the power level when the Extender is connected to an external IR bus system.

## Support

## Troubleshooting

## What Do the LEDs Indicate?

LEDs Colors	Ethernet LED	WiFi LED	Busy LED
Green blinking	The Extender's IP address is being determined.	The Extender's IP address is being determined.	The Extender is busy processing a short code or macro from the Control Panel.
Green	The Extender is functioning normally.	The Extender is functioning normally.	The Extender is busy processing a long macro from the Control Panel.
Red/green blinking	-	-	The Extender is being configured.
Red	Refer to the topic ' <i>There is an IP conflict</i> ' on page 7.	Refer to the topic ' <i>The Extender cannot</i> <i>communicate with the</i>	Refer to the topic ' <i>There are duplicate Extender IDs'</i> on page 8.
Red blinking	Refer to the topic ' <i>The IP address</i> <i>cannot be determined</i> ' on page 7.	wireless network' on page 8.	The Extender is starting up. Wait until startup has finished.

## There is an IP conflict

There is another A/V component in the network that is using the same fixed IP address as the Extender. Change the IP address of the Extender in the Configuration Tool.

If the problem persists, check the router settings.

## The IP address cannot be determined

- When **using** the Extender: make sure that the Extender is connected to the router with a straight Ethernet cable.
- When **configuring** the Extender: make sure the PC is not using a fixed IP address but is using DHCP instead.

 Make sure the router is switched on. If the router is using DHCP, the Extender's IP address cannot be determined. Make sure to use the correct network settings on the router.

#### The Extender cannot communicate with the wireless network

#### The WiFi LED is red

- Make sure that the Extender is in range of the Wireless Access Point.
- Make sure that you filled in the correct secret in the Configuration Tool.
- Add the Extender's MAC address to the router's list of accepted MAC addresses.

#### The WiFi LED is red blinking

- Check the router's network settings and make sure that it can operate with the Extender.
- If the LED doesn't stop blinking, unplug the power adapter, wait a few seconds, and plug it in again.

## Finding the Exact Location of an A/V component's IR Receiver

- 1 Remove the protective tape of the Dual IR emitters.
- 2 Set the Dual IR emitters to the minimal power level, and hold the adhesive side of one of the emitters 0.4 0.8 inch / 1 2 cm in front of the A/V component.
- 3 Make sure the Control Panel is configured to operate with the A/V component.
- 4 Move the emitter across the front panel of the A/V component, and at the same time, send commands with the Control Panel to the A/V component. Take note of when the A/V component reacts to the IR signals of the emitter.
- 5 When the A/V component reacts, position the emitter in that place.

## **Operating A/V components with the Extender**

### The A/V components do not respond to commands from the Extender

- Check if the Busy LED blinks green when you send a command with the Control Panel. If the Busy LED does not blink, the Extender is not receiving commands from the Control Panel;
- Make sure that the Control Panel is configured correctly in ProntoEdit Professional;
- Make sure that the Extender is configured correctly in the Configuration Tool and connected properly to the A/V components;
- · Make sure that the switches on the Extender are set correctly.
- Make sure that the Wireless Access Point is on and configured correctly.
- Make sure that the Extender is in range of the Wireless Access Point. If the Wireless Access
  Point is placed higher or lower than the Extender, place the Extender's antenna horizontally for
  optimum range.
- Not all Wireless Access Points are working equally well in combination with the Control Panel. Make sure you use a quality access point.

### There are duplicate Extender IDs

Using the Extender ID switch, assign a unique ID to each Extender in the same Pronto Network. Make sure the Control Panel is configured accordingly in ProntoEdit Professional.

You can use up to 16 different Extenders in the same Pronto Network.

### The Busy LED blinks green when the Control Panel is not in use

This does not mean that something is wrong with the Extender. It merely indicates that the Extender is being operated by a different Control Panel. When the Busy LED stops blinking, you can use the Extender again.

## **Resetting the Extender**

This is only necessary when the Extender displays unusual behavior.

To perform a reset, unplug the Extender from the electrical socket. Wait a few seconds, and plug it in again.

## Firmware Update

When an update of the Extender firmware is available, this will be announced on the Philips Pronto website: <u>www.pronto.philips.com</u>.

**Note** You can always see the current version of the firmware in the Configuration Tool.

- 1 Download the new version of the firmware on the PC.
- 2 Unplug the Extender. The Extender can be updated in the following ways.

### Updating the Extender with the configuration cable

- 1 Connect the Extender to the PC with the configuration cable.
- 2 Set the switches correctly.

TT B	$\rightarrow$	Stand-alone/Network	Network
ox remen	$\rightarrow$	Configuration switch	2
	->	Extender ID	0

- 3 Open the browser.
- 4 Type the IP address of the Extender: 192.168.8.80 (printed on the back of the Extender) in the address bar of the browser.

The Configuration Tool opens in the browser.

- **5** Select **Firmware Update** in the left navigation pane. The Firmware Update page opens.
- 6 Follow the onscreen instructions. When you are asked to browse to the update file, you need to select the ZIP file you downloaded earlier from the website.

## Updating the Extender through a router

If the Extender is already installed and connected to A/V equipment, it may be more convenient to update it through a router via a straight Ethernet cable. It is not possible to configure the Extender wireless via the router.

- 1 **Connect** the Extender to the router, and the router to the PC.
- 2 Set the switches correctly.

	WAT	- The	
100			6
	- Cart		

≻	Stand-alone/Network	Network
≻	Configuration switch	3
≻	Extender ID	0

3 Open the ProntoEdit Professional on the PC.

## 4 In the **Tools** menu, select **Extender Discovery**.

The Extender Discovery tool appears, with a list of all the detected Extenders in the Pronto Network.

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- **5** Select the Extender that you want to configure and click on the **Configure** button. The Configuration Tool opens in the browser.
- 6 Select Firmware Update in the left navigation pane. The Firmware Update page opens.
- 7 Follow the onscreen instructions. When you are asked to browse to the update file, you need to select the ZIP file you downloaded earlier from the website.
- Tip When your Extender is not recognized by the Extender Discovery tool, update the Extender with the crossed Ethernet cable, as described on page 9.

## **Specifications**

The specifications and design of this product are subject to change without notice.

General	Dark grey ABS housing with poly carbonate front plate 802.11 b/g compliant RF technology 4 LED indications for Power, WiFi, Network and Busy Up to 16 extenders and 16 control panels in a system (for all modes) 4 addressable outputs for IR emitters Ethernet RJ45 connection Rotatable RF antenna Positioning: freestanding or mounted in any position	
Modes	Stand-alone (wireless): Similar to WiFi ad-hoc mode; no access point and router required Network (wireless): Similar to WiFi infrastructure mode; used in a system with a router and access point Network (wired via Ethernet): used in a system with a router and access point	
Dimensions	3,98 x 6,18 x 1,3 inch (101,2 x 157 x 33,5 mm)	
Operating temperature	32°F to 122°F (0°C to 50°C)	
Infrared (IR)	IR frequency range: 25kHz-1MHz (including DC/flash codes) IR power out: 2 levels	
Radio Frequency (RF)	802.11g at 2.4 GHz with additional proprietary protocol	
Dual IR emitters	Number of IR emitters: up to 4 (2x2), emitters wired in series 0.13 inch (3.5 mm) mono mini-jack Cable length: 9 ft (2.7 meters)	
Mono mini-jack cables	0.13 inch (3.5 mm) mono mini-jack Cable length: 5 ft (1.5 meters)	
Power adapter	100V-240 VAC / 50-60 Hz Power adapter (5 VDC/2A output, UL-CE approved)	

#### Pronto Wireless Extender Starter's Guide

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Concept and Realization of this Starter's Guide:

