

[AN012]



ADVANCED
NETWORK DEVICES

Zeroconf Configuration with IPClockWise (Running an Endpoint Standalone with PC)

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Static Electric Warning

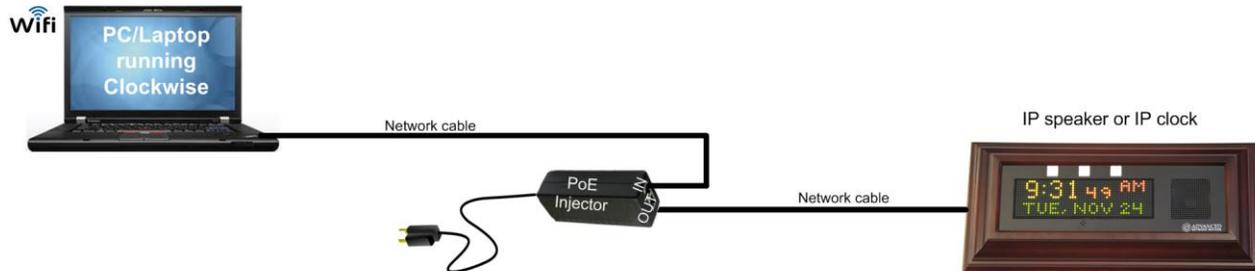


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OVERVIEW

In certain circumstances, you may wish to run your AND device standalone with a PC or laptop, instead of connecting it to a switch or router. The PC or laptop can still stay connected to the local network or Internet via Wi-Fi. See an example scenario with a single AND device shown below.



1. Configure the AND Device

- Power on the AND device on a normal non-standalone network with connection to a DHCP server. A DHCP server is necessary for initial configuration of the device.
- Get the device's IP address, which you can access during the boot-up sequence (or via looking at your router's settings, or other network sniffers like Bonjour).
- Open the device's web page interface by entering the device's IP address into a web browser (e.g., `http://10.10.3.4` where `10.10.3.4` is the IP address of the device).
- Select **Device Settings** → **Network**.
- Select "static IP" as the *Network Mode*.
- If your PC/laptop is using WiFi, create an IP address that does not conflict with the router to which the WiFi is connected (e.g., `192.168.x.x`). Set the device's IP address to that, and `255.255.0.0` as the *Netmask*.

Otherwise, if your PC/laptop is not using WiFi, nor has a DHCP server, set `169.254.0.2` as the *IP address* (`169.254.x.x` is a default address when no DHCP present), and `255.255.0.0` as the *Netmask*.

- Click the *Save Network Settings Changes* button.
- Remove the AND device from the network with the DHCP server.

2. Configure Other AND Devices (Optional)

Repeat steps above for each device in use, entering a unique number for each IP address within the same sub-domain, e.g., 169.254.0.x, or 192.168.1.x, etc.

3. Configure the PC/Laptop

- a. Under *Network Connections*, right-click on the Local Area Network interface of the laptop/PC, and select *Properties*. Select *Internet Protocol (TCP/IP)* or *Internet Protocol Version 4 (TCP/IPv4)* and click *Properties*. Verify the “Obtain an IP address automatically” radio button is selected.

If your PC/laptop is using WiFi, you must additionally click the “Alternate Configuration” tab to set the following parameters:

- **IP Address:** similar (but not exact) to the one you chose in Step 1f above (e.g., 169.254.0.x, or 192.168.1.x, etc.)
 - **Subnet Mask:** 255.255.255.0
 - **Default Gateway:** to the same address as the IP address
- b. Create the network. You can connect the PC/laptop and AND device(s) to the same private network in one of three ways:
 - Direct Connect a Single AND Device
Connect the PC/laptop to the *In* port of the injector, and the AND device to the *Out* port of the injector.
 - PoE Switch
Connect the PC/laptop and AND device(s) into a PoE switch.
 - Normal Switch
Connect the PC/laptop into the switch, and the AND device(s) into the switch via a PoE injector(s). Connect the switch to the *In* port of the injector, and the AND device to the *Out* port of the injector. Repeat for each device.
 - c. Obtain the IP Address. Select the **Windows Menu button -> All Programs -> Accessories -> Command Prompt**. Type “ipconfig” at the command prompt, and press enter to display the network adapter information. Scroll back the command line window to find the *Local Area Connection* information that corresponds to the PC/laptop’s Ethernet port plugged into the switch or injector. Note the *Autoconfiguration IPv4 Address* or *IPv4 Address* of the Local Area Connection (e.g., 169.254.155.157).

4. Set up NTP on the Device

- a. Start IPClockWise on the PC/laptop.
- b. Find the AND device in the Endpoints list.
- c. Double-click on the device in the list to bring up the device's web page interface.
- d. Select **Device Settings** → **General**.
- e. Set up the device's NTP by entering the PC/laptop's IP address (recorded above in step 3c) into the *NTP Server, primary* field, and adding a port number of "8090" (e.g., *169.254.155.157:8090*).
- f. Enter a time zone in the *Named Time Zone* field. See details at http://www.ipspeaker.com/support20/help/timezone_by_country.html.
- g. Click the *Save Changes* button.
- h. Reboot the device.

The AND device should now get its time from the IPClockWise application, and you should be able to interact with the device via IPClockWise with events/alerts, etc.