

GEIST Watchdog 15 / 15P / 100 / 100P

quick setup guide

NOTE: This guide is only meant to assist in identifying the unit and its included accessories, if any, and to assist you with initial setup of the unit. It does not describe all of the unit's features and capabilities in detail. Please refer to the full user manual, available for download from our web site at www.geistglobal.com, for complete information about how to use all of the unit's capabilities.

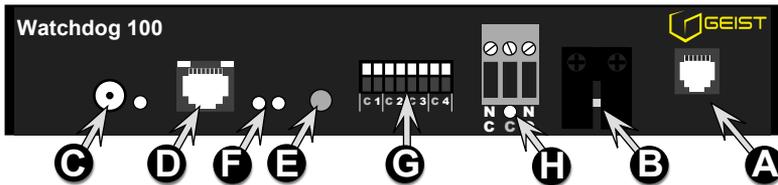
Watchdog 15 /15P kit includes:

- Watchdog 15 or 15P environmental monitor (*NOTE: the "P" means the unit has the Power-over-Ethernet option installed. The two models are otherwise identical in function and capabilities.*)
- +6Vdc power supply (unless the "no power supply" option was chosen when the unit was ordered)



Watchdog 100 / 100P kit includes:

- Watchdog 100 or 100P environmental monitor (*NOTE: the "P" means the unit has the Power-over-Ethernet option installed. The two models are otherwise identical in function and capabilities.*)
- Two (2) detachable mounting brackets to mount the unit in a 19" 1U rackmount space (*the unit is shipped with these brackets already attached; they can be removed if desired.*)
- +6Vdc power supply (unless the "no power supply" option was chosen when the unit was ordered)



(sample illustrations only; actual appearance of unit may vary)

A Digital Sensor jacks: Up to four Digital Bus-type external sensors can be connected to the unit. (*may require an external port-splitter, sold separately*)

B Temperature/Humidity sensor: Make sure that this is not blocked or covered up when the unit is mounted.

C DC power jack: +6VDC power supply connects here.

D Ethernet jack: Right LED indicates network state: "link" (solidly lit) and "activity" (blinking). Left LED indicates the link speed. (100Mbit connection when lit; 10Mbit-only if unlit.)

E RESET button: To reset the IP address to the factory default of **192.168.123.123** and clear any **User Account** username/password settings, hold in this button for approximately 20 seconds, until both of the red Active and Idle LEDs light up solidly (no blinking pattern). On a Watchdog 15 or 15P, use a pushpin or bent paperclip to press the button behind the pinhole opening under the Ethernet jack.

To completely erase all settings and reset the unit to factory defaults, disconnect power from the unit, push in the reset button, reapply power, keep the reset button pushed in for at least 5 seconds, then release.

F Active / Idle LEDs: Indicates that the unit is operating, and communicating with the sensor-bus controller and external sensors (if any).

G Analog Inputs: Used to monitor dry-contact switches or relay contacts, or for analog sensors with 0 ~ +5Vdc output voltages. (*WatchDog 100 or 100P only*)

H Relay Output: Dry-contact relay for controlling external low-voltage devices. The LED under the terminal block shows the relay's state: de-energized (red) or energized (green). (*WatchDog 100 or 100P only*)

“QUICK-START” NETWORK SETUP:

By default, the Watchdog unit’s IP address is set to **192.168.123.123** from the factory. To access the unit for the first time, you will probably need to temporarily change your computer’s network settings to match the 192.168.123.xxx subnet.

To set up the Watchdog unit, connect it to your PC’s Ethernet port (note that some PC’s may require a special “crossover” Ethernet cable to make this type of direct connection), connect the 6V power supply, then follow the appropriate instructions for your PC’s operating system:

- **FOR WINDOWS 2000 / XP / SERVER2003:** Click the **Start** button, choose **Settings**, then **Network Connections**.
- **FOR WINDOWS 7 / SERVER2008:** Click the **Start** button, then choose **Control Panel** → **Adjust Your Computer’s Settings** → **Network & Sharing Center** → **Change Adapter Settings**.

Locate the entry under **LAN or High-Speed Internet** which corresponds to the network card (or “NIC”) which the Watchdog unit is connected to. (Most PCs only have a single NIC installed, but a WiFi connection will also show as a NIC, so be sure to choose the correct entry.) Double-click on the network adapter’s entry in the **Network Connections** list to open its status dialog box, then click the **Properties** button to open the **Local Properties** window (fig.1).

Find the entry titled “Internet Protocol (TCP/IP)” in the list, then click the **Properties** button to open the **Internet Protocol Properties** window (fig.2). If you see more than one TCP/IP entry, the PC may be configured for IPv6 support as well as IPv4; make sure to select the entry for the IPv4 protocol. **Make sure you write down any settings shown here before changing them!**

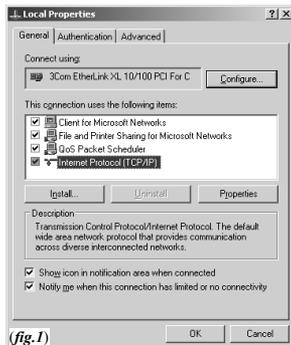
Choose the **Use the following IP address** option, then set **IP address** to **192.168.123.100** and **Subnet Mask** to **255.255.255.0**. For this initial setup, **Default Gateway** and the **DNS Server** entries can be left blank. Select **OK**, then **OK** again to close both the **Internet Protocol Properties** and **Local Properties** windows.

- **FOR MAC OS X:** Click the **System Preferences** icon on the Dock, and choose **Network**. Select **Built-in Ethernet** from the **Show** drop-down list to display the Mac’s Ethernet card (“NIC”) settings, then choose the **TCP/IP** settings, as shown in (fig.3). **Make sure you write down any settings shown here before changing them!**

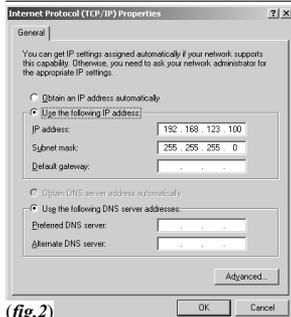
Select **Manually** from the **Configure IPv4** drop-down list, then set **IP address** to **192.168.123.100** and **Subnet Mask** to **255.255.255.0**. (The **Router** and **DNS Servers** can be left blank for this initial setup.) Click **Apply Now** to make the settings take effect.

Once the NIC settings are configured properly, you should be able to access the Watchdog unit by typing **http://192.168.123.123** into the address bar of your web browser. The unit’s **Overview** page will come up by default; click the **Config** button on the left-hand side of the web page to bring up the configuration-settings page, then set the **Network** parameters (fig.4) as needed. The unit’s **IP Address**, **Subnet Mask**, **Gateway**, and **DNS** settings can either be assigned manually, or acquired via DHCP. (For more information, refer to “Assigning an IP Address” in the User’s Manual for your particular Watchdog model, available for download from our web site at <http://www.geistglobal.com/support>)

Note that the new settings will take effect instantly when **Save Changes** is clicked, so the browser will no longer be able to reload the web page from the 192.168.123.123 address and will probably display a “page not found” or “host unavailable” message. This behavior is normal. Once you have finished configuring the Watchdog unit’s IP address, simply repeat the steps above, and change the PC’s NIC card settings back to the ones you wrote down prior to changing them, to restore the PC’s normal network and internet settings.



(fig.1)



(fig.2)



(fig.3)



(fig.4)

SETUP EXAMPLES TO TEST YOUR WATCHDOG MONITORING UNIT:

*Note: The following instructions assume that you have successfully connected the unit to a network, assigned it an IP address, and have been able to bring up its **Overview** page in your web browser using the “Quick-Start Network Setup” instructions on the preceding page. Since the Watchdog 15 and 100 models share the same user interface, only the Watchdog 15’s web pages are shown here.)*

Before the Watchdog unit can log data, its real-time clock must be set to the correct time. The **Time** settings are on the **Config** page; click the **Config** tab on the left-hand side of the web page to bring up the configuration-settings page, then scroll down the page until you find the time-settings block, as shown here.

The clock can either be set manually, or it can be automatically synced to an NTP time server. By default, **Mode** is set to **Manual**; just fill in the **Year**, **Month**, **Day**, **Hour**, **Minutes**, and **Seconds** fields, as shown here. Note that the unit uses a 24-hour clock format; i.e. 8AM would be represented as 08:00:00, while 8PM would be 20:00:00.

The unit’s time is always set in UCT (Coordinated Universal Time). To convert this to your local time, set the appropriate **UTC Offset** (specified as + or – the appropriate amount in hours and minutes, i.e. –05:00 for U.S. Eastern Standard Time, +10:00 for East Australia Time, etc.) for your particular time zone. Then click **Save Changes**, and the clock will be set. If Daylight-Saving Time is in effect in your area, be sure to add +1 to the offset, as appropriate (i.e. use –04:00 for U.S. Eastern Daylight Time instead of –05:00.)

To have the unit set the time automatically via NTP, change **Mode** to **NTP**, then click **Save Changes**. Note, however, that for this to work, you will need to have correctly set the **Gateway** and **DNS Servers** in the **Network** settings block, so that the unit is able to reach the outside internet to look up the NTP server’s address and communicate with it. If these settings are not correct, or if the network’s firewall settings are not set up to allow the unit to access the outside internet, NTP mode will not work.

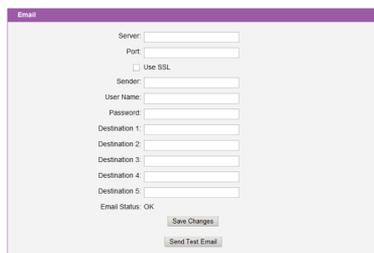
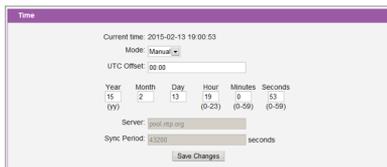
Next, the **Email** settings need to be configured for the Watchdog unit to be able to send alerts. If you plan to use an external SMTP server or a “hosted” service such as Gmail or AOL, you will need to obtain the correct SMTP settings for your account from those services.

The unit will only work with a standard SMTP mail server. It does not support IMAP, or the proprietary MAPI/RPC protocol used by Microsoft Exchange and Outlook. (The Watchdog unit can use an Exchange server to send e-mails, if the Exchange server is set up to allow SMTP connections; however, this may require some additional configuration of the Exchange server to allow the unit to connect to it properly. Please consult Appendix B of the User’s Manual for more information on this.) Therefore, if you need to contact your service provider to get the correct settings, you may need to explicitly mention that you are not setting up Outlook, or a browser-based e-mail client, on a Windows or Mac computer, in order to get the correct “generic” SMTP settings from them.

To send e-mails through a Gmail account, for example, the settings would be programmed as follows:

Server: smtp.gmail.com
Port: 465
Use SSL: ■ enabled (checkboxset)
Sender: complete Gmail e-mail address (i.e. user@gmail.com)
Username: complete Gmail e-mail address (i.e. user@gmail.com)
Password: Gmail login password

Then put the e-mail addresses you want to have e-mail alerts sent to into the **Destination** fields. Only one address can be entered into each **Destination** field; you cannot “stack” a list of recipients, i.e. “user1@mail.net; user2@mail.net; user3@mail.net”, within a single **Destination** entry.



Once the correct e-mail server settings have been entered, click **Save Changes**, then click **Send Test Email** to have the unit send a test message. If you do not receive the test message within a couple of minutes, refresh the web page, and see if there is an error message displayed next to **Email Status**. Generally, if there was a problem sending the e-mail, **Email Status** will display an error message which points to the source of the problem. The most common issues are using the wrong login credentials (username and password), forgetting to check the **Use SSL** box when the server requires encrypted connections, or a network problem which prevented the unit from being able to reach the e-mail server at all. Note that, as described with the NTP time settings above, the **Network** settings must be correct; if the **Gateway** and **DNS Servers** settings are not set properly, the unit will not be able to reach the SMTP mail server, and will not be able to send e-mails.

If the **Email Status** message still says “OK” after you refresh the page, then the unit did successfully log in to the e-mail server and send the test message. If you did not receive the message, check your spam folder to see if it was accidentally marked as spam.

Once you have gotten the unit to send a test e-mail, you can also test its ability to send actual alarms by setting a temperature alarm on the **Alarms** page, then warming the sensor to trip the alarm.

First, go to the **Overview** page, and take note of the current temperature.

Next, go to the **Alarms** page, click **Add New Alarm**, then use the drop-down boxes to select the “**Temperature**” reading, set **Trips if to “Above**”, then set **limit** to a couple of degrees higher than the current temperature. On the right-hand side, set a checkbox on at least one of the **E-mail** addresses in the list – and be sure that the actual e-mail address is shown next to the checkbox; if the checkbox simply reads “(Email 1)”, “(Email 2)”, etc., then that checkbox doesn’t have a valid **Destination** e-mail address programmed into it on the **Config** page yet, and putting a check in that box won’t send any messages.

Watchdog 15

Temperature	Alarm must remain tripped for	E-mail
Trips if Above	0 (min) before notification	<input checked="" type="checkbox"/> test@test.com
limit: 55.00	Repeat every: 0 (min)	<input checked="" type="checkbox"/> test@test.com
<input type="button" value="CLEAR"/>		<input type="checkbox"/> (Email 1)
<input type="button" value="Save Changes"/>	<input type="button" value="Add New Alarm"/>	<input type="checkbox"/> (Email 2)

For now, leave the **Alarm must remain tripped for [](min) before notification** and **Repeat every: [] (min)** settings at “0”, and click **Save Changes**.

To trip the alarm, return to the **Overview** page so that you can see the current temperature, then simply warm the unit’s sensor by a few degrees by blowing warm air at it. When the temperature exceeds the threshold limit, the status messages in the upper-right corner of the web page should change to show “1 Tripped” alarm, and the temperature reading itself should turn red. (Some browsers may require you to manually refresh the web page to see this.) If the unit’s e-mail server settings are properly configured, within a few moments you should also receive an e-mail which says “Watchdog 15: Tripped” in the subject line, and shows both the alarm threshold and the current temperature in the message body.

Watchdog 15 v1.6.0

Alarms: 1 Monitored, 1 Tripped, 0 Unplugged

Watchdog 15

Temperature	88.95 °F
Humidity	19 %
Dewpoint	41.34 °F

Allow the sensor to cool off again, and when the temperature drops a full degree below the threshold limit you set, the “Tripped” message should disappear from the web page, the current-temperature reading will turn black again, and you should receive an e-mail with a subject line of “Watchdog 15: Cleared”.

If you have successfully managed to perform the above steps, then... congratulations! The unit is now correctly set up for your network and SMTP service, and is ready to use. More complete information about all of the unit’s functions and capabilities can be found in the appropriate User’s Manual for your particular unit. Clicking the **Help** tab on the unit’s web page will open a new browser window to the “Support” area of our web site; the manual can be downloaded as a PDF file from there.

If you have not been able to complete the above steps successfully, the full User’s Manual can be found by going to www.geistglobal.com and looking under “Support”, then look for the “Instruction Manuals” link under the “Monitor” category. If the information provided in the User’s Manual does not help in overcoming whatever difficulties you may be having, technical support is available by sending an e-mail to support@geistglobal.com, and we will be glad to assist you.