Honeywell

LCBS Connect Gateway
LGW1000

APPLICATION

The Honeywell LCBS Connect Gateway serves as the communication device between a building site and the Honeywell Cloud, providing contractors with a way to remotely monitor, control, and configure Honeywell building controllers from Honeywell's LCBS website.

Data is collected from Honeywell sensors and controllers in the building and analyzed for issues. Contractors are notified upon detection of a problem and provided with information that can help diagnose the problem remotely. Honeywell maintains and owns the services provided by the Honeywell Cloud infrastructure.
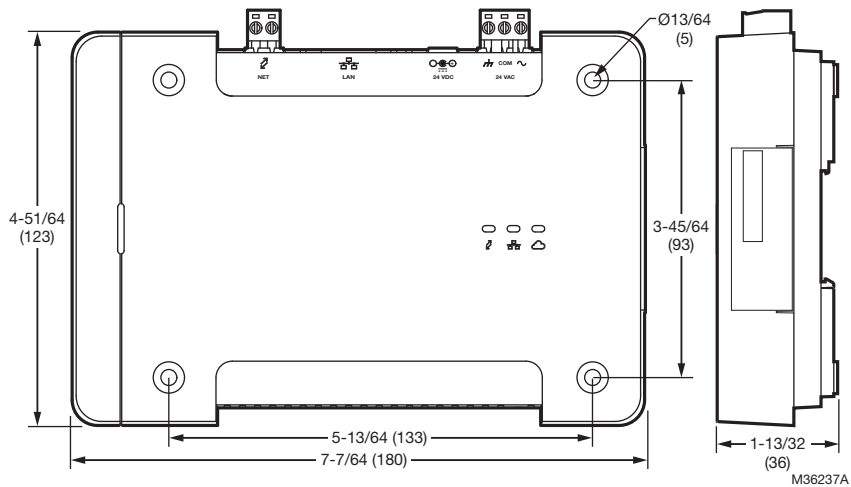
DIMENSIONS

Fig. 1. Dimensions in in. (mm).

Pre-Installation Checklist

Follow the checklist below to make sure that you are prepared to install the LCBS Connect system in a timely, efficient manner.

1. Work with your customer to determine and arrange for appropriate remote internet access at the customer site. If you need to, contact your local LCBS Connect distributor and review "Honeywell LCBS IT White Paper." Make sure you have the proper tools, components, and cabling to install the gateway.
2. Develop a set of instructions and drawings before going to the jobsite. This will be your work plan. You will know what you need to do, because you know your customer's building. It does make a difference in the steps you install LCBS Connect system components. Having a plan before you get to the jobsite will minimize your installation time. Your Honeywell LCBS Connect distributor can help you generate the pre-installation checklist.
3. Determine gateway installation approach, tabletop or panel. If installing in a control cabinet, connect an appropriately sized (10 VA min.) class 2 transformer to the supplied three terminal connector.

    Note: If the gateway is to share a transformer with other devices in the cabinet, verify that the AC polarity is identical on each device.

    If installing on a tabletop, apply power via the power barrel connector using DC power supply, WPM-8000 or equivalent. Work with your LCBS Connect distributor to make sure you have proper tools, components, and cabling so that you can install the gateway efficiently and effectively.

Installation Steps

1. Your work plan will drive installation process steps. The first thing you should do is install LCBS Connect controllers and make sure they are configured using the LCBS Connect wall module interface. Ensure the LCBS controllers are assigned a proper name using the configuration UI *before* connecting the gateway. This will ensure the gateway is able to send proper names of the controllers to the cloud.
2. Mount the gateway in the desired location following your work plan and guidance from your LCBS Connect distributor.
3. Plug the two wire network cable into the network connector, per your work plan. Follow the quick start wiring guide found in the LCBS controller and wall module pack for network wiring instructions. Use this sequence: connect the gateway to the LON bus and Ethernet before powering up the gateway.
4. Plug the Ethernet cable into the Ethernet jack.
5. Provide power to the gateway. Plug the power cable from the wall transformer into the round barrel connector or through the three terminal connector.

⚠ WARNING
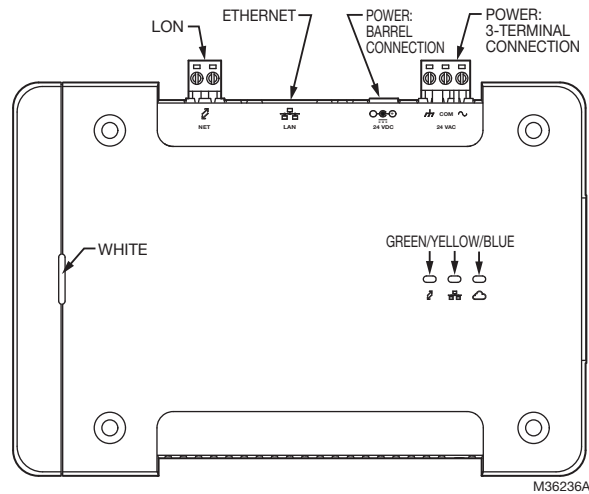**Do not connect both power supplies to the gateway.**

Fig. 2. LCBS Connect Gateway diagram.

6. There are four LEDs on the gateway to convey the status of a specific function as indicated by the adjacent icon (Fig. 2). The behavior of the LEDs will provide troubleshooting guidance when checking the connectivity of your system.
7. The typical behavior of a gateway will be as follows. For complete LED behavior definitions, please see Table 1.
    a. Upon power up, the WHITE LED will first appear with low intensity. Within a few seconds the WHITE LED will be a higher intensity and will remain solid.
    b. After the gateway has powered up, the YELLOW LED will initially blink once a second until a connection to the Internet has been established and then it will go solid.
    c. Once the YELLOW LED has gone solid, the BLUE LED will blink once a second indicating that it is ready to be associated to a building using the Honeywell Cloud. This can only occur if a building has been created and is ready for a gateway's registration ID to be entered. After a successful gateway registration, the BLUE LED will go solid.

    NOTE: Proceeding steps describe the registration process.

    d. The GREEN LED will initially remain off until controllers are installed and wired to the gateway. Once at least one controller is connected, the GREEN LED will go solid. If a controller that was previously connected to the gateway has gone offline and has not been replaced using the Honeywell Cloud Replace function, the GREEN LED will blink once a second.

    NOTE: If the LEDs are not blinking or solid as described, please contact your local Honeywell LCBS Connect distributor technical support desk for assistance, or refer to Table 1 for troubleshooting help.

8. Log-in to your Honeywell LCBS Connect account.

    NOTE: www.lcbs.honeywell.com

9. Add the gateway under a building in the portal.
10. Make sure you enter the correct Registration ID. Registration IDs are case-sensitive.
11. After you have added the gateway under a building account, the gateway will automatically start sending controller data to the cloud. The BLUE LED will be SOLID ON if the gateway is able to send data to Honeywell Cloud.

NETWORKING

- IP allocation requires a DHCP server, provided automatically by most firewall routers.
- Firewall configuration requires port 443 or 5671 (optional).
- Gateway does not work behind an HTTP proxy and may not work behind a transparent proxy, especially if it requires authentication.

Refer to "Honeywell LCBS IT White Paper" for further details.

SPECIFICATIONS

Dimensions: See Fig. 1

ELECTRICAL
Rated Voltage: 20-30 VAC, 50/60 Hz, 10 VA; 24 VDC, 1.25 A NEMA-2 Class 2 power limited device

ENVIRONMENTAL RATINGS
Operating: 32 F – 120 F (0 C – 50 C)
Shipping and Storage: -40 F – 150 F (-40 C – 66 C)
Relative Humidity: 5% to 95% non-condensing
Enclosure Rating: IP-20, NEMA-1

OPERATION
Power Failure Backup: 24 hours at 32 to 100° F (0 to 38° C), 22 hours at 100 to 122° F (38 to 50° C)

DEVICE CONNECTIONS
Power: 24 VDC Wall Wart or 24 VAC input
Ethernet: One (1) Ethernet interface supporting 10 Base-T and 100 Base-TX
Network: LONworks™

APPROVAL BODIES
CUL, US listed E87741 UL916 energy management equipment subassembly
RoHS compliance: 2011/65/EC and EN 50581:2-12

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.
This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with Industry Canada license-exempt RSS standard (s). 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.

Table 1. LEDs and Definitions.

Scenario	Scenario Description	BLUE	YELLOW	GREEN	WHITE
Internet					
1	Gateway can ping Honeywell Cloud	See rows 4–7	On	N/A	On
2	Gateway cannot ping Honeywell Cloud	Off	Blink (1/sec)	N/A	On
Honeywell Cloud					
3	Gateway is ready to be registered but is unable to communicate with the Honeywell Cloud; Internet is NOT working	Off	Blink (1/sec)	N/A	On
4	Gateway is ready to be registered but is unable to communicate with the Honeywell Cloud; Internet is working	Blink (2/sec)	On	N/A	On
5	Gateway is ready to be registered by Honeywell Cloud OR Gateway has been registered but recovering from offline Honeywell Cloud	Blink (1/sec)	On	N/A	On
6	Gateway has been registered and is sending data to Honeywell Cloud	On	On	N/A	On
7	Gateway has been registered but is unable to send data to the Honeywell Cloud; Internet is working	Off	On	N/A	On
8	Gateway has been registered but is unable to send data to the Honeywell Cloud; Internet is NOT working	Off	Blink (1/sec)	N/A	On
9	Re-register button is held down and gateway can send message to Honeywell Cloud	Blink (5/sec)	Previous State	N/A	On
10	Re-register button is held down and gateway cannot send message to Honeywell Cloud	Previous State	Previous State	N/A	On
Power and Firmware					
11	Firmware download in progress	N/A	N/A	N/A	On
12	Firmware installation in progress	N/A	N/A	N/A	Blink (5/sec)
13	Firmware good or installed successfully	N/A	N/A	N/A	On
14	Firmware bad and unrecoverable automatically	N/A	N/A	N/A	Low Intensity
Lon Network					
15	All previously discovered LCBS controllers are NOT communicating	N/A	N/A	Off	On
16	All previously discovered LCBS controllers are communicating	N/A	N/A	On	On
17	Some of the previously discovered LCBS controllers are communicating	N/A	N/A	Blink (2/sec)	On
18	Network adapter issues. May have to replace gateway	N/A	N/A	Blink (1/sec)	On

Home and Building Technologies

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