F100 Basic Setup Instructions

Basics

- The F100W-LPG (F100) sends LPG tank level information to an email address using the WiFi network where an LPG tank is located.
- The F100 unit can be setup without being in range of the WiFi network at the LPG tank.
- The F100 creates a temporary WiFi network for Setup.
- You will need to know how to search for and connect to WiFi networks with a smartphone, tablet, or similar device. Setup requires Javascript.

For setup you will need:

- Network name and password of the WiFi network at the LPG tank.
- Email address reports will be sent to.
- Name assigned to the LPG tank.

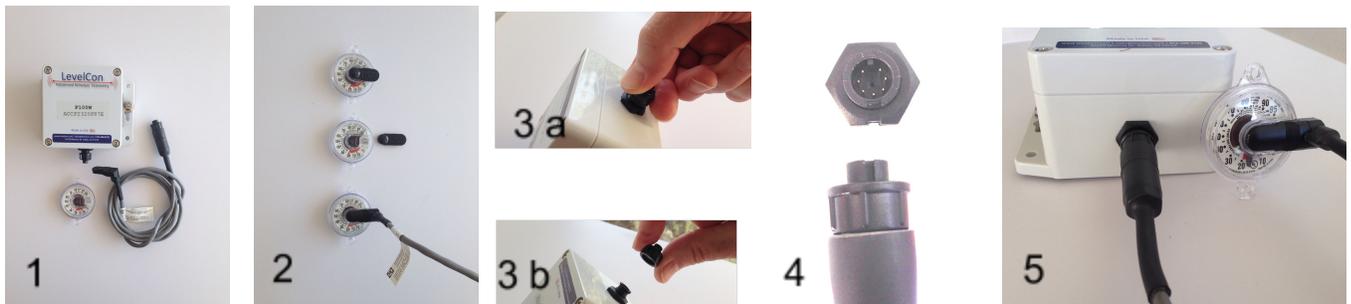**You may find it handy to have this information at your fingertips -**

F100 Configuration Page: **192.168.10.1**

Network Name: _____

Password: _____

Email addresses for reports: _____

Unpack and Assemble

1) Remove components from packaging.
2) Remove black tab from Propane Tank Dial and insert Hall Effect Sensor.
3) Remove protective cover from F100 connector, by turning cap counterclockwise.
4) Connect sensor cable to monitor, take care to observe alignment slots.
5) Monitor with sensor connected.

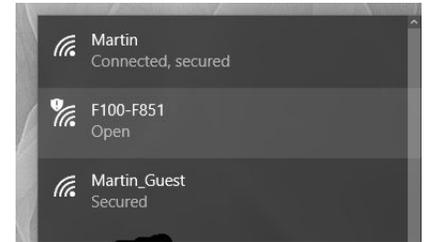## Setup - Connect to the F100

For Setup, the F100 will create a temporary WiFi connection with a WiFi enabled, web enabled, device like a smartphone or laptop. This temporary connection is used only for setup.

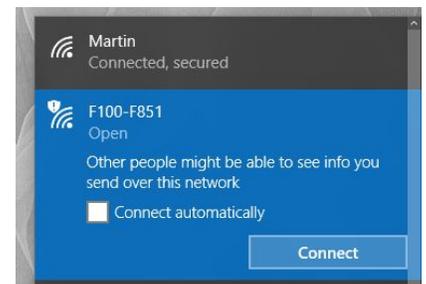**1) Press the push button for 4-5 seconds, then release.**
Within 5 seconds the LEDs will begin to flash, indicating the F100 is broadcasting a temporary WiFi network (F100-xxxx).
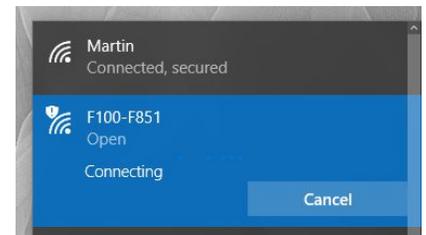
2) Search for available WiFi networks on your setup device (smartphone, tablet, laptop, or computer).

3) Select the F100 network. "F100-XXXX" (XXXX are the last 4 characters of the F100 serial number.) You may see a shield with an exclamation point next to the F100 network name. This is a normal part of the F100 network.
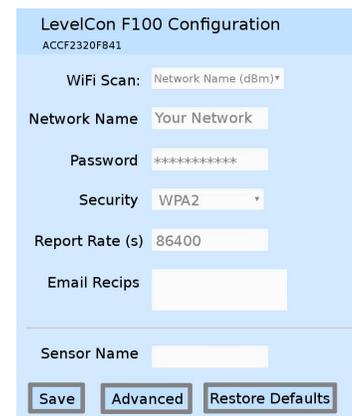
4) Connect to the F100 network. Click the Connect button. The F100 does not need a network password.

5) Open your web browser, type 192.168.10.1 in the address bar, and load the Configuration page.
It is important to type 192.168.10.1 each time you visit the Configuration page.
Many web browsers will autofill the address bar, then load a cached page, with incorrect information.
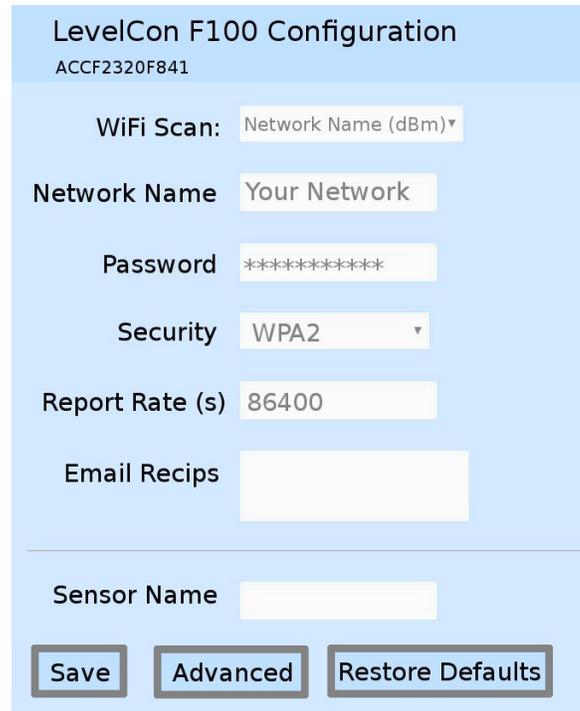
Set up the F100

1) Add the Network Name and Password (PreSharedKey)

If you are in range of the WiFi network the F100 will report through, follow these steps:

a) Scroll down to **WiFi Scan** and click the down arrow to see a list of detected network names.
b) Select the network the F100 will report over. This will fill in the network name text box. Some WiFi routers support 2.5G and 5G networks. Select the 2.5G network
c) If you do not see the network name you are not in the network range – proceed to "If you are not…"
d) Scroll down one line to **PASSWORD** and enter the network password (PreSharedKey) in the text box. Proceed to **2**.

If you are not in range of the WiFi network the F100 will report over:

e) Scroll down to **Network Name** and enter the network name in the text box
f) Scroll down to **Password** and enter the network password (PreSharedKey) in the text box.

2) Security
If you selected a network from the list of detected networks in Step 1, the security type of the network will automatically be filled in.
Check this against the list of supported security types. If the security type is not supported, the WiFi network security type will have to be changed. This change is managed through the configuration page of your router, and is not part of the scope of F100 setup instructions.

3) Report Rate

The F100 is preconfigured to report once per day. (Report Rate value of 86400.) This is the report rate LevelCon recommends. To accept this, do nothing. Proceed to the next step.

For 2 reports per week enter 302400 in the textbox.
For 1 report per week enter 604800 in the text box.

4) Add the email address or addresses where reports will be sent

a) Scroll down to **Email Recips.**
b) Enter the email address reports will be sent to.
c) For multiple addresses, separate each address with a single comma and no spaces, i.e. jmitchell@levelcon.com,nomail@gmail.com.
d) Some email services, like AOL and Verizon, mark LevelCon emails as spam and don't deliver them. The solution is to create an email account through gmail, and forward emails to your preferred email address.
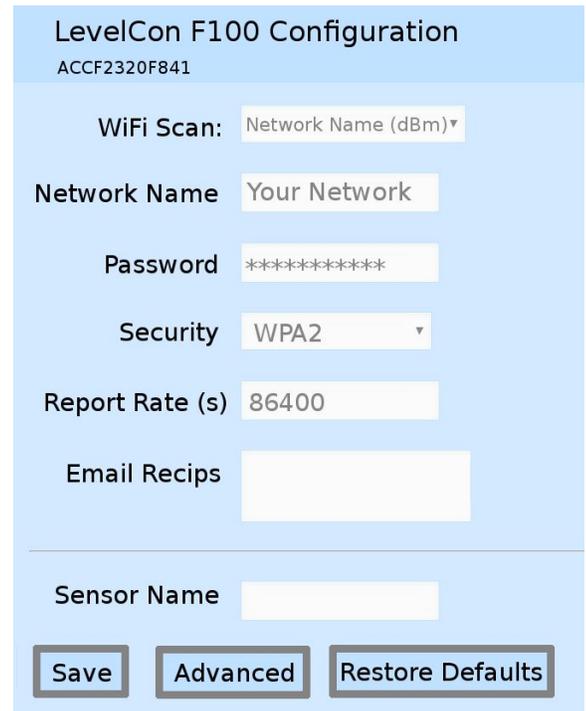
5) Add Sensor Name

a) Scroll down to **Sensor Name.**
b) Enter the commonly used name of the tank. Like "Backyard Tank" or "North Lot Propane".

6) Save Setup entries and send a report

a) Click on the **Save** button to save changes to the setup page and send a report.
b) **A rapid "walk" of the three LEDs, where they light up one after the other in rapid succession indicates a successful report.**
c) **Reporting is confirmed by the receipt of an email.**
d) A simultaneous blink of the three LEDs, where all turn on and off at the same time then stop, indicates a report failure. Usually this means incorrect WiFi parameters.

7) Manual reports

a) A single, quick depression of the push button will send a report. This also resets the timer. This method of reporting draws a lot of energy from the battery, and minimal use is recommended.

LevelCon F100 Configuration
ACCF2320F841

WiFi Scan:	Network Name (dBm)▾
Network Name	Your Network
Password	***********
Security	WPA2 ▾
Report Rate (s)	86400
Email Recips	
Sensor Name	

Save   Advanced   Restore Defaults

Notes:

1. WiFi network security types

WPA2 (AES) aka WPA2-PSK (AES)	**Supported, Recommended** Most secure, most common, newer
WPA2 (TKIP) aka WPA2-PSK (TKIP)	**Supported, Not recommended except as required for legacy devices** Less secure, not common, newer
WPA/WPA2 (TKIP+AES)	Not supported
WPA (AES) aka WPA-PSK (AES)	Supported, not recommended Less secure, not common, older
WPA (TKIP) aka WPA-PSK (TKIP)	Supported, not recommended Less secure, not common, older
WEP 128	Not supported
WEP 64	Not supported
WiFi descriptions with the word "Enterprise"	Security managed through RADIUS server. Not supported through consumer channels. Please contact MDi for enterprise support.

2. JavaScript. JavaScript is required for administering the F100.

3. Advanced button. The **Advanced** button reveals all possible set up parameters of the F100. LevelCon does not recommend using this option for normal consumer installations.

4. Restore Defaults button**.** The Restore Defaults button erases all entered values on the Configuration page and restores factory default values.

5. Battery life. You can expect at least two years of daily reporting from the F100 as shipped. The need to replace batteries is shown when:
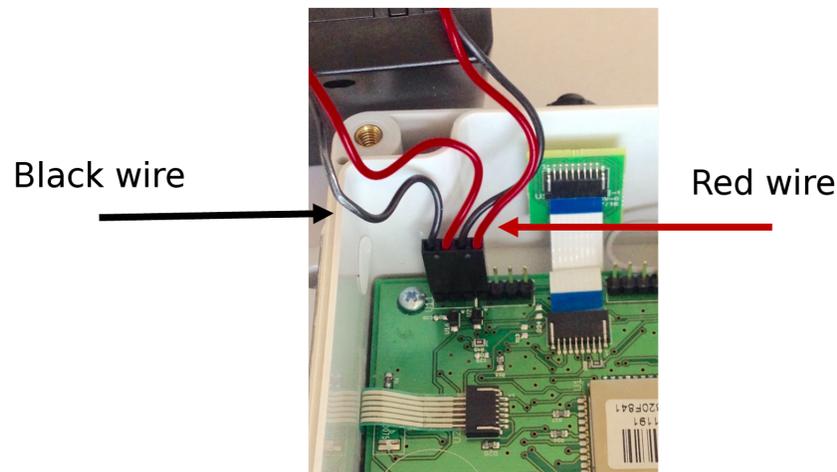   a) Previously regular reporting becomes irregular and the battery voltage in the last reports drops below 4.5V.
   b) Connections of the F100 to a local device for administration are dropped.

6. Operation. The F100 is "on" whenever batteries are installed. The F100 uses so little power when operating that an On and Off switch or capability is not useful.

7. SetUp Location. The F100 can be set up at a convenient kitchen table or workshop bench with a smartphone or similar device. Setup does not need to occur at the propane tank.

8. Battery replacement.

a) Remove the four screws that secure the F100 lid and remove it.
b) Remove the battery pack from the monitor. The battery pack connector may disconnect from the main board, this is OK.
c) Slide the two covers off the battery pack (the covers are not secured with screws intentionally).
d) Replace old batteries with six, new, fresh AA batteries. High grade lithium batteries, like Energizer Ultimate Lithium batteries are recommended. **Pay careful attention to polarity markings in the battery holders when inserting new batteries.**
e) Replace the two battery pack covers.
f) If required, reconnect the battery connector as shown in the picture.

Orient the F100 so the Push Button is on your left. Insert the battery cable connector onto the seven pin connector so the black wire is on pin 1 (leftmost pin), and the red wire is on pin 4. Three pins remain uncovered as shown. The F100 will report when the battery cable is connected to the header.

g) Place the battery pack in the F100 and reattach the F100 lid.
h) The F100 will be in run mode. All configuration settings are saved. The F100 will report over the same WiFi network as previously. No reconfiguration is necessary.