F100 Quick Start Guide

The F100 is a 802.11bgn enabled wifi telemetry device with a single analog input. This guide will outline the configuration and installation for a typical applications.
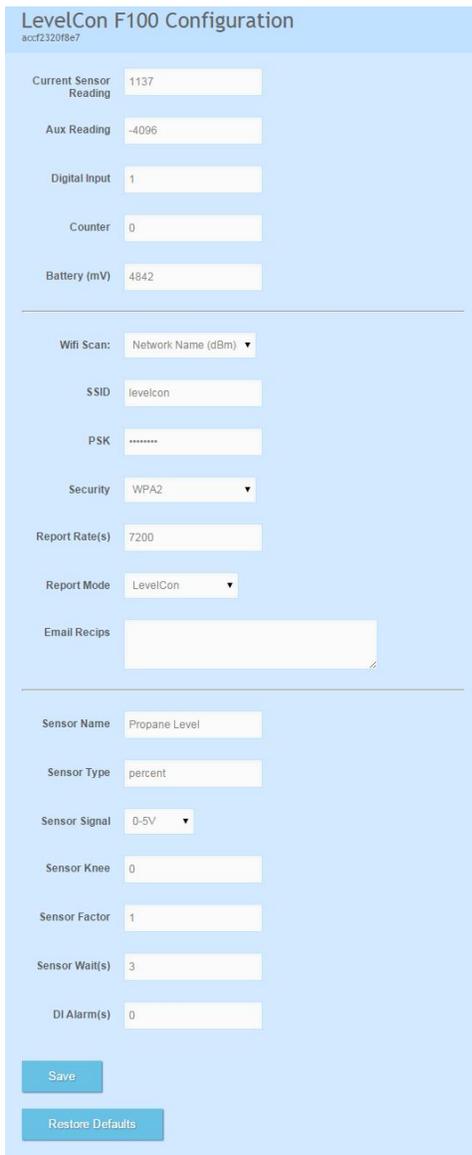
Device Configuration

The F100 is configurable through a self-broadcasting wireless network. Any wifi enabled device with a web browser can configure the F100 (iPhone,iPad, any Android device, laptop etc…) Follow the instructions below to set the F100 into the configuration mode and access parameters.

1. Press and hold the push button for 3-4 seconds and then release.
2. The lighted push button will begin a steady quick flash and the device should now be in configuration mode.
3. On a wifi enabled device (laptop, phone, tablet etc…) search for available networks.
4. An open network named F100-XXXX network should be visible (where XXXX are the last 4 characters of the F100's serial number)

5. Join the network, there is no password to join.

6. Open a web browser and navigate to: http://192.168.10.1/ A configuration page will be shown as follows:

LevelCon F100 Configuration
accf2320f8e7

Current Sensor Reading	1137
Aux Reading	-4096
Digital Input	1
Counter	0
Battery (mV)	4842
Wifi Scan:	Network Name (dBm)
SSID	levelcon
PSK	••••••••
Security	WPA2
Report Rate(s)	7200
Report Mode	LevelCon
Email Recips	
Sensor Name	Propane Level
Sensor Type	percent
Sensor Signal	0-5V
Sensor Knee	0
Sensor Factor	1
Sensor Wait(s)	3
DI Alarm(s)	0

Save

Restore Defaults

Below is a description of the important user parameters. Other parameters are available for debug and advanced configuration.

Name	Description
Wifi Scan	Scan of available 802.11b/g/n networks. If selected the SSID and Security fields are automatically populated with the chosen network.
SSID	SSID is the name of the wifi access point the F100 will connect to
PSK	Pre-shared key for authenticating on wireless network, your network password

Security	Type of wireless security, most common and secure is WPA2
Report Rate(s)	Interval in seconds the F100 will report. For instance to report once a day, set to 86400
Report Mode	This should always be set to LevelCon unless instructed otherwise
Email Recips	List of comma separated email addresses to receive email reports
Sensor Name	User configurable name of the sensor/channel that is reporting, only used in email reporting. Examples: ● House temperature ● Cabin Propane Level ● Gasoline Tank 52
Sensor Type	Type of sensor connected. This parameter is necessary for email reports to have calculated values. Please choose from the following: ● For propane and hall effect sensors, a percentage is usually desired. For this, please enter **percent** ● For pressure sensors please enter in this format: \<max psi>psi_\<desired units>. For instance if you are using a 15 PSI sensor and desire an inch report you would enter: **15psi_in** ● For sonic/radar/lidar and other distance measuring sensors that measure in mm, follow this format: mm_\<desired units>. Remember to set the factor to -1 and the knee to the tank height in the desired units. For instance if you had a 300 inch tall tank with a sonic sensor, you would enter: **mm_in** as well as set a factor of -1 and knee to 300. ● For advanced users a value of **raw** can be used to report the 12 bit reading that ranges from 0-4096 More types will be added in the future to support any user sensor or customization required.
Sensor Signal	Select either 0-5V or 4-20mA. Hall effect/propane sensors are 0-5V
Sensor Knee	Offset to be applied to the calculated value. Only used for email reporting
Sensor Factor	Factor to be applied to the calculated value. Only used for email reporting
Sensor Wait(s)	Number of seconds to wait for sensor to settle before taking a reading. Most sensors will read well with a setting of 3 seconds. Sonic/Lidar/Radar sensors require 9 seconds to settle.

Adjust parameters as desired. At the minimum ***the ssid, password, and authentication type must be specified*** or the F100 will not be able to send reports. When finished, click the save button and the device will restart and send a report. The LED will blink slowly indicating the device is running. After 15-20 seconds a final indication will be shown:

- A fast LED blink sequence indicates a successful report.
- A single long LED illumination indicates a report failure. Usually this means incorrect wifi parameters.

After confirming the F100 is reporting please follow your specific hardware installation according to your application.

Propane Monitor Instructions

You will only need a phillips head screwdriver to complete the installation.

1. Please complete the "Device Configuration" section before installing the equipment.
2. At the propane tank, remove the existing dial gauge by removing the two fastening screws.
3. Replace the original dial with the supplied dial and cable combination and fasten it to the tank with the supplied screws.
4. Insert the Chogori dial sensor lead in the receptacle on the monitor. *Be sure to properly line up the male and female components as to not bend any receiving pins.*
    a. Once the connection is made, Twist the locking mechanism on the connector clockwise to lock it into place.
5. Place the F100 anywhere on the tank with the supplied magnetic feet.
6. Press the lighted report button once to force the initial report.

F100 Parts Description

Propane Dial Gauge w/ hall effect sensor

Chogori connector and receptacle