

TEC WiFi Link Quick Guide



**How to use the TEC WiFi
Link with the DG-700
Pressure and Flow Gauge.***

*Will work with the DG-500 gauge

Performance Testing Tools

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TEC
The Energy Conservatory

A. Getting Started in AP Direct Connect Mode

1. **Connect the TEC WiFi Link and DG-700 together.** Tighten the two attachment screws on the TEC WiFi Link.



2. **Attach the Power Jumper Cable between the TEC WiFi Link and DG-700.** Light **#1** on the TEC WiFi Link will turn on indicating that it is receiving power.



3. **Turn on the DG-700.** Once the ON/OFF button on the DG-700 is pressed, light **#2** on the TEC WiFi Link will begin

to blink. Light **#2** will then turn on solid indicating that it is providing a wireless network access point. Whenever light **#2** is on, the keypad for the DG-700 will no longer be functional (this indicates that the gauge is ready to be controlled remotely by WiFi compatible software). The gauge display will remain on unless the WiFi compatible software being used issues a command to dash the display.



- 4. Connect your laptop computer or mobile device to the TEC WiFi Link wireless network.** On your laptop computer/mobile device, select and connect to the TEC WiFi Link wireless network. The network will be named "DG700-SN" (where SN is the serial number of the DG-700 gauge). The first time you connect to this network, you will be asked for a password/security key - enter the default password/security key ***tecwifi12***



Note: If your laptop/mobile device is currently connected to another wireless network, you may need to disconnect from that network before connecting to the TEC WiFi Link network. The DG-700 gauge must be on in order for the TEC WiFi Link network to be visible from your laptop/mobile device.

- 5. Run your WiFi compatible software and connect to the gauge.** Check our website www.energyconservatory.com/products/wifilink for a list of WiFi compatible software. Refer to software specific instructions.



For Advanced Information and Troubleshooting continue reading.

B. Advanced Information

There are two modes of operation for the TEC WiFi Link.

- 1. AP Direct Connect Mode:** The TEC WiFi Link is shipped in AP Direct Connect Mode. In this mode, the TEC WiFi Link is providing a wireless access point that your laptop/mobile device connects to directly. This direct connection does not rely on any additional networking hardware (e.g. router), just the TEC WiFi Link and your laptop/mobile device. This is the recommended mode for single gauge operation. **To use AP Direct Connect Mode** follow the instructions in **Section A** above.
 - In **AP Direct Connect Mode**, the TEC WiFi Link uses channel 1 as the default network channel when creating a wireless access point. If you suspect you have interference on channel 1, there are two methods for changing the network channel being used by the TEC WiFi Link.
 - The easiest way to change the network channel is to briefly press button **A** on the TEC WiFi Link. The current network channel will jump up by 5 channels within the allowed channel frequencies of 1 to 11 (e.g. channel 1 to channel 6, or channel 6 to channel 11, or channel 11 to channel 5, etc).
 - It is also possible to set the channel from the WiFi compatible software (refer to software specific instructions).
- 2. Router Mode:** In **Router Mode** the TEC WiFi Link is configured to search for a specific wireless access point (i.e. Router) and to automatically connect with it. Once the connection between the Router and TEC WiFi Link is established, you must also connect your laptop/mobile device to the same Router in order to use the WiFi compatible software. Typically, the user would bring their

own router into the building to use this feature, however, an existing building router can be used if you know the network name (SSID) and password. Configuring your TEC WiFi Link to **Router Mode** is done through the WiFi compatible software (refer to software specific instructions).

Router Mode allows you to

- Extend the effective WiFi communication distance between your gauge and your laptop/ mobile device. Because both the TEC WiFi Link and your laptop/mobile device are communicating directly with the Router, the Router can be placed in a building to allow for greater separation between the devices.
- Wirelessly connect to multiple DG-700 gauges at the same time. Multiple TEC WiFi Links can be configured to connect with the same Router. This allows you to access multiple gauges from WiFi compatible software that supports this feature.

How to Re-Configure the TEC WiFi Link back to AP Direct Connect Mode from Router Mode

1. Power On the TEC WiFi Link and the DG-700 gauge.
2. Press and hold button **A** on the TEC WiFi Link for 5 seconds. All 4 lights will begin flashing. When you release button **A**, the TEC WiFi Link will restart in **AP Direct Connect Mode** along with the default password/security key of ***tecwifi12***
3. It is also possible to re-configure the WiFi Link to **AP Direct Connect Mode** from the WiFi compatible software (refer to software specific instructions).

C. Trouble Shooting

1. I can't find the TEC WiFi Link network on my laptop/mobile device.
 - The TEC WiFi Link power jumper cable is not installed.
 - The DG-700 gauge is Off.
 - The TEC WiFi Link is configured to **Router Mode**.
 - Your laptop/mobile device is out of range of the TEC WiFi Link network.
2. I can't connect to the gauge from the WiFi compatible software.
 - Your laptop/mobile device is not connected to the TEC WiFi Link network (TEC WiFi Link configured to **AP Direct Connect Mode**).
 - Your laptop/mobile device is not connected to the specified Router (TEC WiFi Link configured to **Router Mode**).
 - Your laptop/mobile device is out of range of the TEC WiFi Link network, or Router.
 - Another device is connected and using the TEC WiFi Link network.
 - A firewall on your laptop is preventing the WiFi compatible program from accessing the TEC WiFi Link network.
 - Refer to software specific instructions.
3. Light **#2** is blinking and does not turn on solid.
 - The TEC WiFi Link is configured to **Router Mode** and can not connect to the specified Router.

Battery Life: The TEC WiFi Link draws considerably more battery power than a DG-700 gauge by itself. When using a set of 6 new high quality AA Alkaline batteries, the DG-700 gauge by itself will operate for approximately 100 hours. When also powering the TEC WiFi Link with the power jumper cable, new Alkaline batteries will provide approximately 20 - 30 hours of wireless operation (depends on the DG-700 revision level). **Be sure to unplug the TEC WiFi Link from the DG-700 gauge when it is not in use.**

TEC WiFi Link Specifications

Size	2.75 x 1.875 x 1 in (70 x 48 x 25 mm)
Weight	2 oz. (57 grams)
Radio Protocol	IEEE 802.11b compatible
RF Output Power (Typical)	+18 dBm
RF Operating Frequency	2.4 - 2.497 GHz
Supported Data Rates	11, 5.5, 2, 1 Mbps (802.11b)
Operating Temperature	32° - 120° F (0 ° to + 48° C)
Certifications and Compliance	Wi-Fi, FCC, IC, ETSI, RoHS, CE
Power Source	Connection to the TEC Digital Gauge (+6V to +12V DC at 250mA Nominal)
Battery Life of Digital Gauge when connected with WiFi Link	20-30 hours continuous depending on digital gauge
Wireless connection modes	Access point or router-supported



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