

iTEC-700 for PC *(The iTEC-700 App is also available for both iOS and Android devices.)*

iTEC-700 for PC works with your DG-700 pressure gauge and TEC WiFi Link to create the most powerful and accurate wireless manometer in the building testing industry:

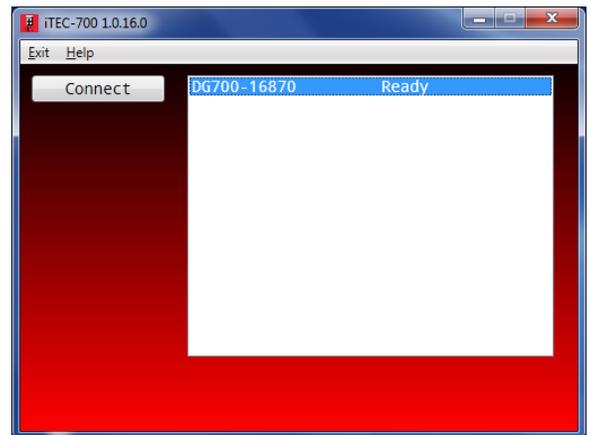
Features:

- Remotely view and control your DG-700 pressure gauge.
- Remotely adjust and cruise your Blower Door or Duct Blaster fan.
- Remotely view and control multiple DG-700 gauges at the same time – perfect for more complicated test procedures like the duct leakage to outside test, and for state-of-the-art training applications.
- Offsite sharing of gauge readings and gauge control (using 3rd party screen-sharing software).
- Set up and control stand-alone data logging of pressure readings from your DG-700 gauge (data is stored on the TEC WiFi Link).

Using iTEC-700 with a single DG-700 gauge and WiFi Link

1. Connect your computer to the wireless network being broadcast by the WiFi Link installed on the DG-700 gauge (see **TEC WiFi Link Quick Guide** in main **Help** menu).
2. Start the iTEC-700 program to display the opening screen. Once the program is running, it will continuously search for all DG-700 gauges that are connected to your computer and provide a list of gauges that are found and ready to be connected.

Select the gauge you wish to connect to and click on **Connect**. Once the program and gauge are connected, a gauge control screen will appear and begin displaying readings from the gauge. The serial number of the connected gauge is displayed in the upper left-hand corner of the control screen. **Note:** If iTEC-700 detects that your WiFi Link does not have the most recent firmware installed, you will be instructed how to install the latest firmware. You must have the most recent WiFi Link firmware installed in order to use iTEC-700 PC.



Note: After the communication link has been established between the iTEC-700 program and the gauge, light #3 on the WiFi Link will turn on. The flashing yellow light #4 indicates data transfer between the program and the WiFi Link.

- The gauge control screen displays readings from both channels of the gauge (Channel A readings on top, and Channel B below). This screen also contains controls for various program settings and features including Channel A Baseline readings, Channel B Mode, Channel B Flow Device and Configuration, and Time Averaging. In addition, a fan speed slider and cruise control interface are provided for remote control of a fan that is connected to the DG-700 fan jack (cruise control allows you to adjust the speed of a connected fan to maintain a preset Channel A pressure reading).

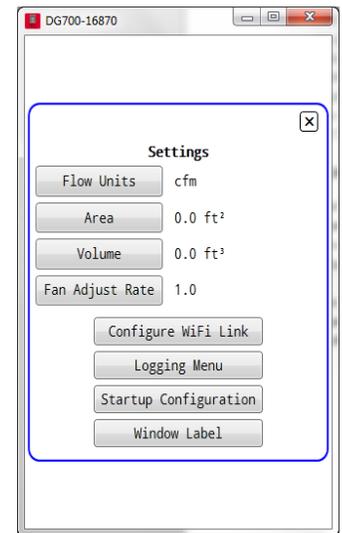
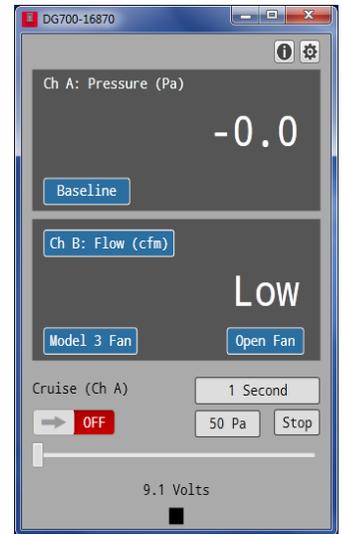
Note: The physical display on the DG-700 gauge will remain visible even though iTEC-700 is now controlling the gauge. The displayed values on the gauge may not exactly match the values displayed in iTEC-700 due to differences in settings between the gauge and the program.

Additional program settings are available from the **Setting** screen. 

- The **Settings** screen allows you to change the **Flow Units** used for Channel B flow readings, and the **Fan Adjust Rate** used with cruise control. You can also enter **Area** and **Volume** values which are used in the normalized flow calculations for Channel B (e.g. CFM@25 per Square Foot, ACH50).

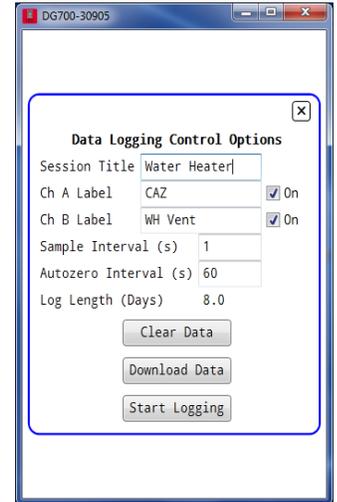
From **Settings**, you can also:

- Configure WiFi Links.
- Set up and control stand-alone data logging of Channel A and B pressure readings.
- Set the startup configuration of the iTEC-700 program.
- Display an optional text label next to the serial number on the gauge control screen.



Stand-Alone Data Logging of a DG-700 Gauge and WiFi Link

1. From the **Settings** screen, the **Logging Menu** button allows you to configure and start a stand-alone data logging session for the DG-700 gauge and WiFi Link. During stand-alone data logging, the WiFi Link and DG-700 gauge work together to record pressure readings from both Channel A and B on the gauge (the data is stored in the WiFi Link). Once the data logging session is completed, the data can be downloaded to your computer in both TECLOG3 and CSV file formats.
2. From the **Data Logging and Control Options** screen, you can specify a data logging session title, a Channel A and B label, a sample interval in seconds, and an auto-zero interval in seconds (these variables are recorded as part of the data logging session). The Log Length field shows you an estimate of how long (in days) you can conduct stand-alone data logging with the available memory inside the WiFi Link. The longer the Sample Interval, the longer the data logging session can continue.



Note: The length of time that the gauge batteries will power a stand-alone data logging session depends on the power level of the batteries installed, and the auto-zero interval (the longer the auto-zero interval, the longer the batteries will last). A fresh set of Alkaline batteries and an auto-zero interval of 60 seconds will provide approximately 8 days of power for data logging. It is also possible to power both the gauge and WiFi link with a wall power adapter (contact TEC for more information).

3. Press the **Start Logging** button to initiate the stand-alone data logging session. Once the WiFi Link is put into data logging mode, the WiFi Link stops broadcasting a WiFi network signal and simply records pressure readings from the DG-700 gauge. The lights on the WiFi Link will blink once every 2 seconds while in this mode. The meaning of each light is as follows:

- blue #1: logging mode is active
- green #2: not used
- green #3: data storage is taking place (gauge is on, and batteries are not critically low)
- yellow #4: batteries are low, or critically low

When in data logging mode, the keypad on the gauge is not active and you cannot communicate with the gauge and WiFi Link until the data logging session has been stopped. Once you have initiated a stand-alone data logging session, close the iTEC-700 program on your computer (the program will continue to search for a DG-700 gauge to connect to).

4. To stop the stand-alone data logging session, press and hold button **A** on the WiFi Link until all lights on the Link start blinking (about 2 seconds), then release button **A**. Once data logging is stopped, the WiFi Link will restart and you will need to re-connect your computer with the WiFi Link network before re-starting the iTEC-700 program.

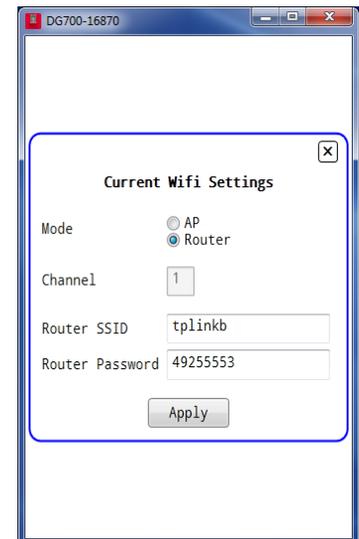
- To retrieve the data from the data logging session, you will first need to re-connect iTEC-700 with the gauge and WiFi Link. Once connected, press the **Download Data** button from the **Data Logging and Control Options** screen to begin the download process. Enter a file name and save location and click on **Save**. The program will wirelessly download both a TECLOG3 and CSV file to your computer. These files will contain all of the data collected during the stand-alone logging session.
- You can only store 1 stand-alone data logging file at a time in the WiFi Link. You will need to clear the data from the WiFi Link (using the **Clear Data** button) before starting a new data logging session.

Configuring WiFi Links

WiFi Links are shipped from TEC in AP Direct Connect Mode. In this mode, the WiFi Link is providing a wireless access point that your computer/mobile device connects to directly. This is the recommended mode for single gauge operation as described above, but will need to be changed in order to be used with a wireless router (which allows for multiple wireless gauges connections). Configuration of WiFi Links into Router Mode can be done through the iTEC-700 program. Below is an explanation of the configuration process using iTEC-700 PC.

Configure WiFi Link to Router Mode:

- Connect your computer to the wireless network being broadcast by the WiFi Link installed on the DG-700 gauge.
- Run the iTEC-700 program and connect to the gauge.
- Go to the **Settings** screen and click on the **Configure WiFi Link** button.
- From the **Current WiFi Settings** screen, enable Router Mode (by selecting the **Router** button).
- Enter the Router SSID and Password. These must match the SSID and Password for the router that both the computer and WiFi Link will connect to.
- Press the **Apply** button. The WiFi Link is now in Router Mode.
- The WiFi Link will now begin searching for the router that you specified in the **WiFi Settings** screen. Light #2 on the Link will blink until the Link finds the router and connects to it (then light #2 will turn on solid).
- If you wish to re-connect to this gauge and Link from the iTEC-700 program, you will now need to connect your computer to the specified wireless router network.



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

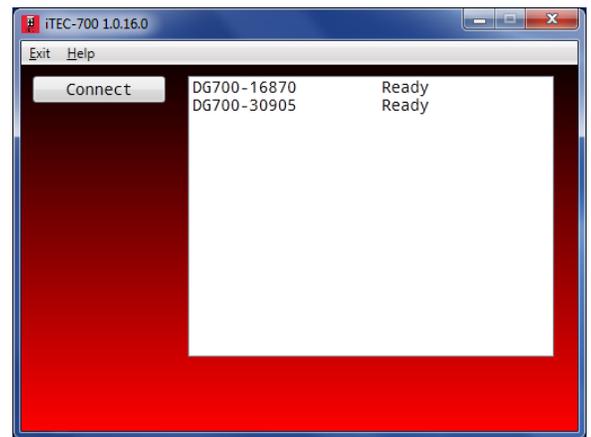
1. Power on the TEC WiFi Link and the DG-700 gauge.
2. Press and hold button **A** on the TEC WiFi Link for 5 seconds. All 4 lights will begin flashing. When you release button **A**, the TEC WiFi Link will restart in AP Direct Connect Mode along with the default password/security key of **tecwifi12** (this will also clear the Router Mode SSID and Password).

Note: You can also use the **Configure WiFi Link** screen from iTEC-700 to re-configure your WiFi Link back to AP Direct Connect Mode. This will require both your computer and WiFi Link to be connected to the same wireless router network (this method will retain the Router Mode SSID and Password).

Using iTEC-700 to View and Control Multiple DG-700 Gauges at the Same Time

One of the most powerful features of iTEC-700 PC is the ability to remotely view and control multiple DG-700 gauges at the same time. This feature is perfect for more complicated test procedures like the duct leakage to outside test, and for state-of-the-art training applications where you can display and control multiple DG-700 gauges on one computer screen in a classroom or field setting.

1. To use this feature you will first need to configure the WiFi Links being used to Router Mode (see **Configuring WiFi Links** above).
2. Next, connect your computer to the same wireless router network being used by the WiFi Links.
3. In the opening iTEC-700 screen, you will now see multiple DG-700 gauges to connect to. One at a time, select a gauge and then click on **Connect**. A new gauge control window will appear for each gauge selected.
4. Each gauge control window can be moved and resized using your mouse.



How Do I Recover From a Failed WiFi Link Firmware Update?

If you suspect that the firmware in your WiFi Link is not working properly, it is easy to install new firmware using iTEC-700 PC.

1. On the opening iTEC-700 screen, select **Repair WiFi Firmware** from the **Help** menu.
2. Select "Yes" to the question "Would you like to attempt to repair the firmware in a TEC WiFi Link?"
3. Follow the on-screen instructions to update the firmware from iTEC-700 PC to your WiFi Link.

