

Technical Bulletin: DG 1000 Manometer Functions

Residential New Construction Program



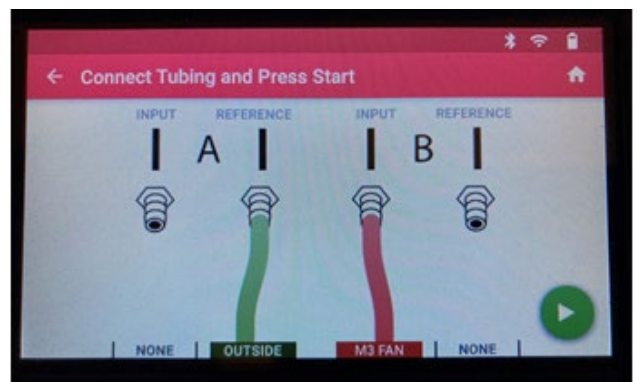
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The newer DG-1000 Manometer is becoming more and more popular in the RNC Program. Both the DG-1000 and DG-700 are capable of testing accurately, but the DG-1000 is digital with a few upgrades compared to the DG-700. The following is a guide for the basic functionality of the DG-1000.

Home Menu

The home menu is the default screen that appears first when turning on the DG-1000. The menu has five different icons with various functions. The icons and their functions are as follows.

- Gauge: This icon opens the gauge screen where raters can begin testing.
- Updates: To determine if the device needs any updates, tap this icon. Note: the device needs to be connected to the internet.
- Settings: The settings menu allows users to adjust the following:
 - Network configuration
 - Screen brightness
 - Auto off timer
 - Startup screen configuration
- Tubing Assistant: Tapping this icon selecting the appropriate testing type, location, and device will prompt the manometer to display the appropriate tubing configuration. An image of a blower depressurization configuration is on the right.

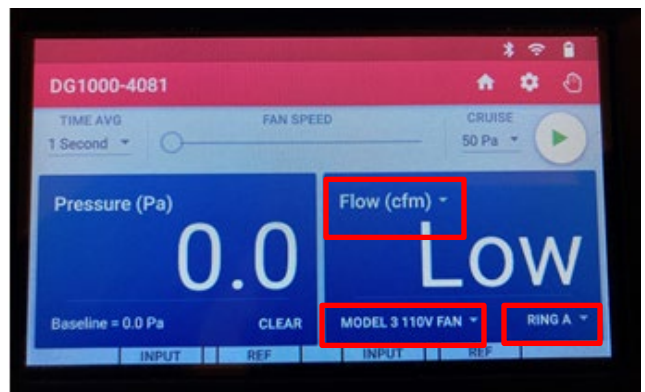


An example of the tubing configuration

Setting up Channel B Settings

Similar to the DG-700, the DG-1000 has various options for modes, devices, and ring configurations for testing. The following steps outline how to set up Channel B.

1. Select the “Gauge” button on the homes screen.
2. Open up the options menu by tapping on either the mode area, the device area, or the configuration area on Channel B. These areas are highlighted on the image to the right.
3. At the top, there are three different tabs that open up lists of options for the mode, device, and configuration for Channel B. Select either of the tabs and the appropriate option for testing.
4. Once the option is highlighted, touch the back arrow on the top left of the screen.



An example of where to tap to open the options menu for Channel B

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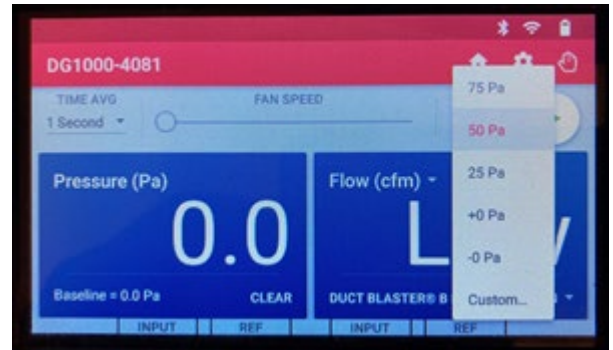
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Cruise Control

Cruise control allows the user to set a target blower door pressure without manually changing fan controls. This is useful for testing when the outside pressure is fluctuating. To use cruise control, a fan control cable connecting the manometer to the controller is needed. The cable can be purchased from the Energy Conservatory website. Any auxiliary audio/headphone cord from an electronics store will work as well.

Steps to begin cruise control are as follows:

1. Make sure the fan control cable is connecting the manometer to the controller and turn the controller on.
2. In the Gauge screen, select the pressure to maintain by tapping the area below the text "Cruise" near the play symbol. Once selected, a drop down of options will appear. An example of this is to the right.
3. Tap on the desired pressure and select the green play button to begin.
4. To exit cruise control, select the red stop button at the bottom right of the screen.



An example of the cruise control options

Baseline and time averaging

As with all testing, it is important to set at least a 10 second baseline prior to testing. Start the baseline by tapping the "SET BASELINE" text located on the bottom right of channel A in the gauge screen. A timer in Channel B will begin counting up. Tap "ENTER" and the baseline is set. Be sure to monitor the pressure fluctuations to gauge the accuracy of the blower door. The pressure ranges and accuracy levels are as follows:

0-5 Pa - Standard Accuracy

5-10 Pa - Reduced Accuracy

10+ Pa - Invalid testing conditions

Time averaging is useful while conducting the blower door and duct blaster. The manometer has four options for time averaging (1 second, 5 second, 10 second and Long-Term average). It is good practice to take a 10 second average for single point blower door tests and a 5 second average for leakage to outside tests. To conduct a time average, reach the target pressure and tap the area below the "TIME AVG" text located on the top left side of the manometer.